

UNIVERSITY OF HELSINKI
Viikki Tropical Resources Institute
VITRI

TROPICAL FORESTRY REPORTS

37



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Global and EU governance for sustainable forest management with
special reference to capacity building in Ethiopia and Southern Sudan

**Global and EU governance for sustainable
forest management with special reference to capacity building
in Ethiopia and Southern Sudan**

Roope Husgafvel

Academic dissertation

To be presented, with the permission of the Faculty of Agriculture and Forestry of the University of Helsinki, for public discussion in Auditorium XII at the University of Helsinki Main Building, Unioninkatu 34, on Friday 21 January 2011, at 12 o'clock noon.

Helsinki 2010

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ABSTRACT

The purpose of this study was to produce information on and practical recommendations for informed decision-making on and capacity building for sustainable forest management (SFM) and good forest governance. This was done within the overall global framework for sustainable development with special emphasis on the EU and African frameworks and on Southern Sudan and Ethiopia in particular. The case studies on Southern Sudan and Ethiopia focused on local, national and regional issues. Moreover, this study attempted to provide both theoretical and practical new insight. The aim was to build an overall theoretical framework and to study its key contents and main implications for SFM and good forest governance at all administration levels, for providing new tools for capacity building in natural resources management.

The theoretical framework and research approach were based on the original research problem and the general and specific aims of the study. The key elements of the framework encompass sustainable development, global and EU governance, sustainable forest management (SFM), good forest governance, as well as international and EU law. The selected research approach comprised matrix-based assessment of international, regional (EU and Africa) and national (Southern Sudan and Ethiopia) policy and legal documents. The specific case study on Southern Sudan also involved interviews and group discussions with local community members and government officials. As a whole, this study attempted to link the global, regional, national and local levels in forest-sector development and especially to analyse how the international policy development in environmental and forestry issues is reflected in field-level progress towards SFM and good forest governance, for the specific cases of Southern Sudan and Ethiopia.

The results on Southern Sudan focused on the existing situation and perceived needs in capacity building for SFM and good forest governance at all administration levels. Specifically, the results of the case study on Southern Sudan presented the current situation in selected villages in the northern parts of Renk County in Upper Nile State, and the implications of Multilateral Environmental Agreements (MEAs) and of the new forest policy framework for capacity building actions. The results on Ethiopia focused on training, extension, research, education and new curriculum development within higher education institutions and particularly at the Wondo Genet College of Forestry and Natural Resources (WGCF-NR), which administratively lies under Hawassa University.

The results suggest that, for both cases studies, informed decision-making on and capacity building for SFM and good forest governance require comprehensive, long-term, cross-sectoral, coherent and consistent approaches within the dynamic and evolving overall global framework, including its multiple inter-linked levels. The specific priority development and focus areas comprised the establishment of SFM and good forest governance in accordance with the overall sustainable development priorities and with more focus on the international trade in forest products that are derived from sustainable and legal sources with an emphasis on effective forest law enforcement and governance at all levels.

In Upper Nile State in Southern Sudan there were positive development signals such as the will of the local people to plant more multipurpose trees on farmlands and range lands as well as the recognition of the importance of forests and trees for sustainable rural development where food security is a key element. In addition, it was evident that the local communities studied in Southern Sudan also wanted to establish good governance systems through partnerships with all actors and through increased local responsibilities. The results also suggest that the implementation of MEAs at the local level in Southern Sudan requires mutually supportive and coherent approaches within

the agreements as well as significantly more resources and financial and technical assistance for capacity building, training and extension. Finally, the findings confirm the importance of full utilization of the existing local governance and management systems and their traditional and customary knowledge and practices, and of new development partnerships with full participation of all stakeholders. The planned new forest law for Southern Sudan, based on an already existing new forest policy, is expected to recognize the roles of local-level actors, and it would thus obviously facilitate the achieving of sustainable forest management.

Key words: sustainable forest management; good forest governance; capacity building; global governance; European Union; Ethiopia; Southern Sudan

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PREFACE

I have been interested in the topics of this study for a long time and they have been my major fields of interest during my whole professional career and studies. I have learned from experience that these issues do matter in the real world and therefore related research and development activities are needed. I consider it to be essential to understand both the overall global framework and specific local conditions as well as their various inter-linkages and mutually supportive elements. Moreover, the motivation and main driver behind this study was my personal and professional need to address this important yet little researched field. In addition, this study derives from the need to find both practical solutions to specific problems and new development ideas as well as from the personal desire to address the theoretical and scientific gap in this field.

The original idea was to contribute to high level decision-making and strategy as well as to practical development efforts at the field. Therefore, this study should be interesting and useful to a large number of different people particularly beyond the traditional academic audience. I think that the target audience of this study as a report on two specific cases comprises officials, managers and development workers within public and private international, regional and national organizations and institutions as well as field level project workers. Readers can easily identify chapters of their interest from the table of contents.

I started this project and my post-graduate studies in 2002 with little understanding how much work was ahead and how much things would change during the research and writing process. Many other tasks and duties delayed my work, but also gave more perspective and focus that supported this study. At this point, I see the results coming from a long process of continuous learning and finding.

I would like to express my deepest gratitude to Professor Olavi Luukkanen for his encouragement and support through the years. He has made VITRI a great place for internationally oriented and multidisciplinary research and development work. Moreover, this study benefited greatly from the work experience and material gained within the project on landscape management planning and training for the environment in South Sudan (LAMPTESS) and the project on the strengthening institutional capacity of Wondo Genet College of Forestry and Natural Resources of Hawassa University, Ethiopia, for the improvement of higher education and research on sustainable natural resources management (HESNARM) both financed by the Finnish Foreign Ministry through the institutional co-operation instrument for higher education institutions (HEI-ICI). I worked as resource person on multilateral environmental agreements (Mesa) and forest policy in the LAMPTESS project and as project coordinator in the HESNARM project.

Moreover, the professional advice and guidance provided by Dr. Laxen who was the team leader in the LAMPTESS project really helped me to include more practical and locally oriented aspects into the case study on Southern Sudan. Dr. Eshetu Yirdaw was the team leader in the HESNARM project and he provided excellent support and advice on the case study on Ethiopia. I would also like to thank my current and former colleagues at VITRI for their good company and plentiful support. Furthermore, I am most grateful to Dr. Timothy Onak (Director General for Forestry) and other GoSS Ministry of Agriculture and Forestry staff for their hospitality and professional advice on Southern Sudan as well as to the local land use and extension expert Mr. ElFadil Omer Osman for his friendliness and contribution to the fieldwork including excellent interpretation services during the village interviews and group discussions in northern parts of Renk County in Upper Nile State.

This study or some of its parts has received financial support from the Finnish Cultural Foundation and its Uusimaa Regional Fund as well from the Ella and Georg Ehrnrooth Foundation; Niilo Helander Foundation; Kyösti Haataja Foundation; University of Helsinki; Ahti Pekkala Foundation; Niemi Foundation and Emil Aaltonen Foundation. Additionally, many other foundations have provided financial support for my other studies that have also supported this study in many ways.

Finally, I would like to express my warmest thanks to my family including my wife Titta, my son Casper and my daughter Ronja as well as my parents Rea and Pekka for their infinite and priceless support and encouragement during my postgraduate studies and this research work.

Helsinki, May 2010
Roope Husgafvel

LIST OF ACRONYMS AND ABBREVIATIONS

AFLEG	African Forest Law Enforcement and Governance
AMCEN	African Ministerial Conference on the Environment
CBD	Convention on Biological Diversity
CDM	Clean Development Mechanism
CPF	Collaborative Partnership on Forests
EC	European Community
EU	European Union
ECJ	European Court of Justice
FAO	Food and Agriculture Organization of the United Nations
GoSS	Government of South Sudan
IAF	International Arrangement on Forests
ICJ	International Court of Justice
IFF	Intergovernmental Forum on Forests
IIF	International Instrument on Forests
IPF	Intergovernmental Panel on Forests
ITTA	International Tropical Timber Agreement
ITTO	International Tropical Timber Organization
JI	Joint Implementation
NAP	National Action Programme
NGO	Non-governmental Organization
NFP	National Forest Programme
NLBI	Non-Legally Binding Instrument on All Types of Forests
MAF	Ministry of Agriculture and Forestry
MEA	Multilateral Environmental Agreement
MGDs	Millennium Development Goals
REDD	Reduced Emissions from Deforestation and Forest Degradation
SFM	Sustainable Forest Management
UN	United Nations
UNCCD	United Nations Convention to Combat Desertification
UNCED	United Nations Conference on Environment and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNFF	United Nations Forum on Forests
WB	World Bank
WCSD	World Commission on Sustainable Development

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1. Introduction

1.1 Global sustainable development framework

Sustainable development has been established as the leading global development goal and it has direct consequences for all branches of development including the forest sector. International development is increasingly focused on sustainable development including its inter-linked economic, social and environmental dimensions. Sustainable use of natural resources including sustainable forest management (SFM) and environmental protection issues such as addressing climate change challenges are key issues within this overall development framework. Moreover, the important contribution of good governance to sustainable development has been recognized globally. SFM within the overall sustainable development framework has become the foundation of best forest management practices including the main aspects of good forest governance at all levels. In its essence, sustainable development is about comprehensive, cross-sectoral, coherent and consistent approaches to development and management of various resources such as forests. The definitions of the key concepts of this study are presented in the following:

- *Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs¹.*
- *Sustainable forest management as a dynamic and evolving concept aims to maintain and enhance the economic, social and environmental value of all types of forests, for the benefit of present and future generations².*
- *Sustainable management means the stewardship and use of forests and forest lands in a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity, vitality and their potential to fulfil, now and in the future, relevant ecological, economic and social functions, at local, national, and global levels, and that does not cause damage to other ecosystems³.*
- *Forest resources and forest lands should be sustainably managed to meet the social, economic, ecological, cultural and spiritual needs of present and future generations⁴.*
- *Global governance refers to 1) broad, dynamic and complex process (including formal institutions and regimes and informal arrangements) of interactive decision-making that is constantly evolving and responding to changing circumstances, 2) multilevel formal and informal governance (e.g. the UN and EU systems, international organizations, national governments, research institutions, private sector, NGOs and local communities), 3) development and implementation of international, national and local rules and laws (e.g. MEAs and soft law), 4) arrangements, cooperation and action based on agreed goals and shared problems (especially global), 5) international regimes (linked principles, norms, rules and decision-making structures for a given issue area and to govern a particular problem) and 6) networks of institutions and standards⁵.*
- *EU governance refers to 1) the European regional governance system within the overall global governance framework including all related institutions and instruments, 2)*

¹ WCED 1987.

² Paragraph 4, Chapter III, NLBI 2007.

³ Paragraph D, Resolution H1, MCPFE 1993.

⁴ Paragraph 2b, Forest Principles, UN 1992b.

⁵ As defined by the following authors: Alger 2001; Cable 1999; Clark 2001; Held and McGrew 2003; Hempel 1996; Karns and Mingst 2004; Keohane 2003; Keohane and Nye Jr. 2000; Kirton and Trebilcock 2004; Marks and Hooghe 2004; McGrew 2001; Nayyar and Court 2002; Rittberger and Zangl 2006; Speth and Haas 2006; Taylor and Curtis 2001; Woods 2003.

European integration, internal market and harmonization development (establishing treaties as the basis) and 3) joint activities of both the EU institutions and the Member States.

The global framework is dynamic and evolving and includes inter-related international, regional, national and local levels and related processes, institutions and instruments. Moreover, global development issues have become broader and more inter-linked and more complex. This means that forest governance and management issues must be addressed through integrated approaches within the broad sustainable development framework. Consequently, there is a need for clear understanding of the overall framework and its key elements. In addition, informed decision-making and dealing with forest issues within this global framework require comprehensive, consistent and cross-sectoral knowledge, understanding and approaches. Therefore, the purpose of this study was to design a framework for and to conduct an assessment of the global and EU governance for SFM with an overriding objective to:

- Contribute to informed-decision making about 1) SFM and good governance within the global sustainable development framework, 2) SFM and good forest governance within the EU sustainable development framework and 3) Africa-EU cooperation in the field of SFM and good forest governance;
- Determine the practical implications of the global and EU frameworks for capacity building in Ethiopia and Southern Sudan;
- Determine the main implications of the global and EU frameworks for institutional and human resource capacity building in WGCF-NR with an emphasis on 1) training and extension, 2) education and research and 3) new curricula development for good forest governance and SFM; and
- Assess the current situation and identify the key development priorities about SFM and good forest governance in Southern Sudan.

1.2 World forests and African development

The FAO global forest resources assessment adopted the concept of SFM as a reporting framework in line with global processes and the need to address forest resources, management and uses from a holistic perspective (FAO 2005a). The assessment aimed at supporting forest-related decision-making and sustainable development at all levels as well as applied the internationally agreed thematic elements of SFM except for the element related to the legal, policy and institutional framework for SFM. The excluded element is about governance, participatory decision-making, law enforcement, monitoring and assessment of progress and broader aspects such as capacity-building, fair and equitable use of forest resources, forest sector infrastructure, transfer of technology, communication and public information. This study focused on this challenging element and aimed at providing a contribution to further assessments and development in this field.

The findings of the FAO (2005a) global forest resources assessment highlight the fact that forests cover 30% of the total global land area and that deforestation (mainly conversion of forests to agricultural land) still continues at an alarming rate globally. Moreover, the increasing area of forest plantations and the important role of forests as carbon sinks were recognized. In addition, 84% of the global forest resources are under public ownership, but the share of private ownership has been increasing globally (but very slowly or not at all in Africa). In sum, the results of the assessment suggest that global progress towards SFM has advanced or remained stable with positive development such as an increase of the global forest area for biodiversity conservation and social services as well as an increase in the area of productive and protective forest plantations. Moreover, the area of forests under private ownership as well as the value of wood removals and the amount

and value of non-wood forest products have increased. Negative trends include a decrease in the area of primary forests and a decline in forestry education as well as a growing incidence of various forest disturbances (FAO 2005a).

The progress towards SFM in Africa has been limited as indicated by a continuing loss of forest area, a marginal increase in protected forests and an increasing volume of wood removals that most likely are unsustainable. The assessment concluded that SFM has a significant potential for the promotion of overall sustainable development. Suggestions for future assessment included enhanced efforts to support capacity-building in developing countries for international reporting and country reporting in support of policy processes (FAO 2005a).

Sustainable natural resource management is essential for African development and all governments should make protection and rehabilitation of forests a development priority. In addition, natural resources, reforestation activities and sustainable management practices play a major role in climate change mitigation efforts in developing countries. African development priorities include more focus on leadership, good governance and long-term sustainability as well as on interrelated key issues such as climate change, poverty reduction, deforestation, desertification, land ownership, secure livelihoods and environmental protection (Maathai 2009). Sustainable development requires critical assessment of sustainable long-term benefits of short term interventions in the context of foreign aid to Africa, and good governance is the foundation of good business and economic growth. Moreover, political will and strong institutions as well as governance and financial innovations are needed (Moyo 2010). Challenges of forest governance and related decentralization issues are likely to increase in Africa due to a growing demand for access to land and resources and because of competing demands for government revenue, local livelihood values and the provision of public goods in the form of forest ecosystem services (German et al. 2010).

Democratic environmental governance requires broad-based assessments of its key elements: local discretion (democratic institutions and decision-making) and local representation including responsiveness and accountability of local government and forestry institutions (Ribot 2010). Good governance and decentralization are important elements of environmentally sustainable development and related poverty reduction. In addition, effective and equitable forest governance reforms and decentralization require strengthening of the capacity of local institutions, social networks and local actors as well as integration of this capacity into decision- and policy-making (Capistrano 2010).

Good governance requires enhancement of the capacities of governmental and non-governmental institutions as well as empowerment of people to be active development partners. Additionally, a holistic approach to development involves an equitable, sustainable and accountable use of all resources as well as emphasis on democratic governance, human and other rights and responsible and accountable management of state affairs (Maathai 2009). Sustainable solutions require focus on long-term development and related systems and holistic approaches. More emphasis on good governance and country ownership could help to promote African development by reducing dependency on foreign governments for financial assistance (Glennie 2008). Good governance and related practices are important in the context of foreign aid including both international and national institutions and policies (Calderisi 2006).

The State of the World's Forest (FAO 2007a) report provides a global perspective on the forest sector in line with sustainable development and its environmental, economic and social dimensions. This report applied the seven thematic elements of SFM that have been internationally agreed as a framework for SFM: 1) extent of forest resources, 2) biological diversity, 3) forest health and

vitality, 4) productive functions of forest resources, 5) protective functions of forest resources, 6) socio-economic functions and 7) legal, policy and institutional framework. The last element deals especially with new policies and laws including SFM and NFPs as well as community-based, decentralized and private-sector forest management. International commitments highlight the importance of voluntary tools (e.g. management guidelines, C&I, codes of best practices and certification standards) in promoting SFM jointly with legally-binding instruments such as agreements at various levels.

Sustainable forest development is especially challenging in areas suffering from continuous conflicts and severe poverty as is the case in many African countries. Furthermore, conflicts significantly increase deforestation and the extent of uncontrolled forest fires. The designated primary forest functions in Africa are presented in Table 1. Africa has lost 9% of its forest cover between 1990-2005 and only few countries have increased or improved their forests through afforestation and reforestation including the establishment of forest plantations. The area covered by other wooded land is also declining. Forests in Africa are almost totally owned by national governments and managed by national forest agencies which do not have enough financial resources for SFM (FAO 2007a).

In brief, the overall regional progress towards SFM in Africa is characterized by slow and varied advancement with positive signals such as new forest laws and policies, high level commitment and development of NFPs. However, there is often limited law enforcement capacity or lack of effective implementation of NFPs and very low levels of forestry investments. SFM needs to be supported by policy, legal and institutional changes as well as by comprehensive assessments and informed decision-making. The key forest sector development issues include addressing climate change, C&I for SFM, codes of best practice, wood energy, and non-binding, voluntary and legally binding tools for SFM at all levels as well as secure forest tenure and access to forest resources, and a global consensus on the need for a multidisciplinary approach to forest management (FAO 2007a).

Table 1. Primary forest functions in Africa (2007).

Production (%)	Multiple purpose (%)	Conservation (%)	Protection (%)	Not specified or unknown (%)
30	25	16	5	24

Source: FAO 2007a.

1.3 Problem statement

Sustainable forest management has been established as a fundamental element within the global sustainable development framework including good forest governance at all levels. Moreover, global and regional (e.g. EU) governance for SFM has broadened the framework of forest policy, law, governance and management including all levels of governance. In general, global governance for SFM is currently an essential issue that has not been fully addressed by forest research. This is particularly true about dynamic, applied and practically oriented research with an overall aim to promote the achievement of good forest governance and SFM at all levels.

This new global governance framework for SFM means that decision-making about the management, conservation and sustainable development of all types of forests has become more complex and takes place within this overall global framework including dynamic, inter-related and

evolving processes, institutions and instruments. The global framework has implications for all levels and activities including best practices in the forest sector. This study aimed at promoting informed decision-making about good forest governance and SFM by providing knowledge about the overall governance framework including its all levels and by highlighting field level development and capacity building priorities in this context (case studies on Ethiopia and Southern Sudan). Modern decision-makers and managers at all levels need to be aware of and understand the overall global framework to make well-informed decision about the future course of SFM and good forest governance.

Furthermore, decision-makers in the EU institutions and Member States require more information on EU governance for SFM such as good forest governance aspects and field level development and capacity building priorities. The field level priorities are demonstrated especially through the case study on Southern Sudan. Moreover, the existing, emerging and necessary linkages between all governance levels need to be highlighted, so as to identify gaps and mutually supportive elements as well as the most urgent capacity building priorities related to SFM, good forest governance and good governance in general.

There is also a huge demand for institutional and human resource capacity building to create awareness, competence, capabilities, capacity and to implement sustainable management and good governance practices. Therefore, the case study about Ethiopia demonstrates how good forest governance and SFM can be supported through capacity building for new focus areas related to training and extension, education and research, and new curricula development within higher education institutions. It is already clear at this point that future SFM and good forest governance at all levels include comprehensive, cross-sectoral, coherent and consistent approaches in line with the dynamic and evolving overall global framework.

1.4 Aims of the study

1.4.1 General aim

The overall aim of this study was to produce timely information on global and EU governance for SFM so as to support informed decision-making on and capacity building for SFM and good forest governance at all levels and particularly in Ethiopia and Southern Sudan. This study focused on all linked and inter-related levels of the global framework including the main elements of the key instruments and the main features of specific local conditions. The sustainable development framework implies future-oriented, dynamic, evolving and interrelated approaches with strategic and normative statements about the current situation and future development priorities concerning the selected focus area such as SFM and good forest governance within the overall global framework. The idea was to provide both an overall picture (a descriptive approach) of the dynamic and evolving framework and essential details about practical capacity building measures (a normative and prescriptive approach) based on the assessment of the overall framework and the specific case studies. This study aimed to answer the following overall research questions:

- 1) What are the main implications of the global governance framework for capacity building for good forest governance, good governance and SFM?
- 2) What are the main implications of the EU governance framework for capacity building for good forest governance, good governance and SFM?

1.4.2 Specific objectives

This study included case studies on capacity-building priorities and new focus areas in good forest governance and SFM in Ethiopia and Southern Sudan. In addition, these case studies are closely linked to the overall research questions. The case study on Ethiopia aimed at answering the following specific research questions:

- What are the main implications of the Ethiopian forest law for capacity building for good forest governance, good governance and SFM?
- What are the main implications of Ethiopia's governance framework for new capacity building focus areas in 1) training and extension, 2) research and education and 3) new curricula development for good forest governance and SFM in WGCF-NR?
- What are the main implications of the AFLEG and AMCEN frameworks for new capacity building focus areas in 1) training and extension, 2) research and education and 3) new curricula development for good forest governance and SFM in WGCF-NR?
- What are the main implications of the EU forest policy framework for new capacity building focus areas in 1) training and extension, 2) research and education and 3) new curricula development for good forest governance and SFM in WGCF-NR?
- What are the main implications of the EU governance framework for new capacity building focus areas in 1) training and extension, 2) research and education and 3) new curricula development for good forest governance and SFM in WGCF-NR?
- What are the main implications of the global governance framework for new capacity building focus areas in 1) training and extension, 2) research and education and 3) new curricula development for good forest governance and SFM in WGCF-NR?

The case study on Southern Sudan was practically oriented including national and local level assessments. The specific research questions of this case study were:

- 1) What are the main implication of the new GoSS Forest Policy Framework for capacity building for SFM, good forest governance and good governance in Southern Sudan?
- 2) What is the current situation and what are the main development priorities in 1) SFM, 2) sustainable natural resources management, 3) environmental and land degradation and climate change challenges, 4) land use and ownership and 5) forest and natural resources governance in selected villages in the northern parts of Renk County (with statements made by the Renk County officials)?
- 3) What is the current situation about good forest governance in Southern Sudan and especially in Renk County?
- 4) How are MEAs (NLBI, ITTA 2006, CBD, UNFCCC and UNFCCD) currently implemented and enforced in Southern Sudan and especially in Renk County?
- 5) What are the main implications of the AFLEG and AMCEN frameworks for capacity building for good forest governance in Southern Sudan
- 6) What are the main implications of the EU forest policy framework for capacity building for good forest governance, good governance and SFM in Southern Sudan?
- 7) What are the main implications of the EU governance framework for capacity building for good forest governance, good governance and SFM in Southern Sudan?
- 8) What are the main implications of the global governance framework for capacity building for good forest governance in Southern Sudan?

1.5 Analytical framework

The designed analytical framework of this study is based on the global governance framework. This framework is presented in Figure 1 and it comprises the global, regional, national and local levels. Moreover, this study applies a comprehensive, cross-sectoral, coherent and consistent analytical approach to solve the research problem and to meet the aims of this study. The analytical structure and implementation stages are presented in Figure 2. The specific outline of the research approach is presented in the Materials and Methods section and it includes the operationalization of these overall frameworks. In general, the research topics of this study are assessed and discussed in the context of the following frameworks:

- Sustainable development at the international and EU level.
- Global and EU governance
- Sustainable forest management and good forest governance.
- International and EU law (including sustainable development law and international environmental law).

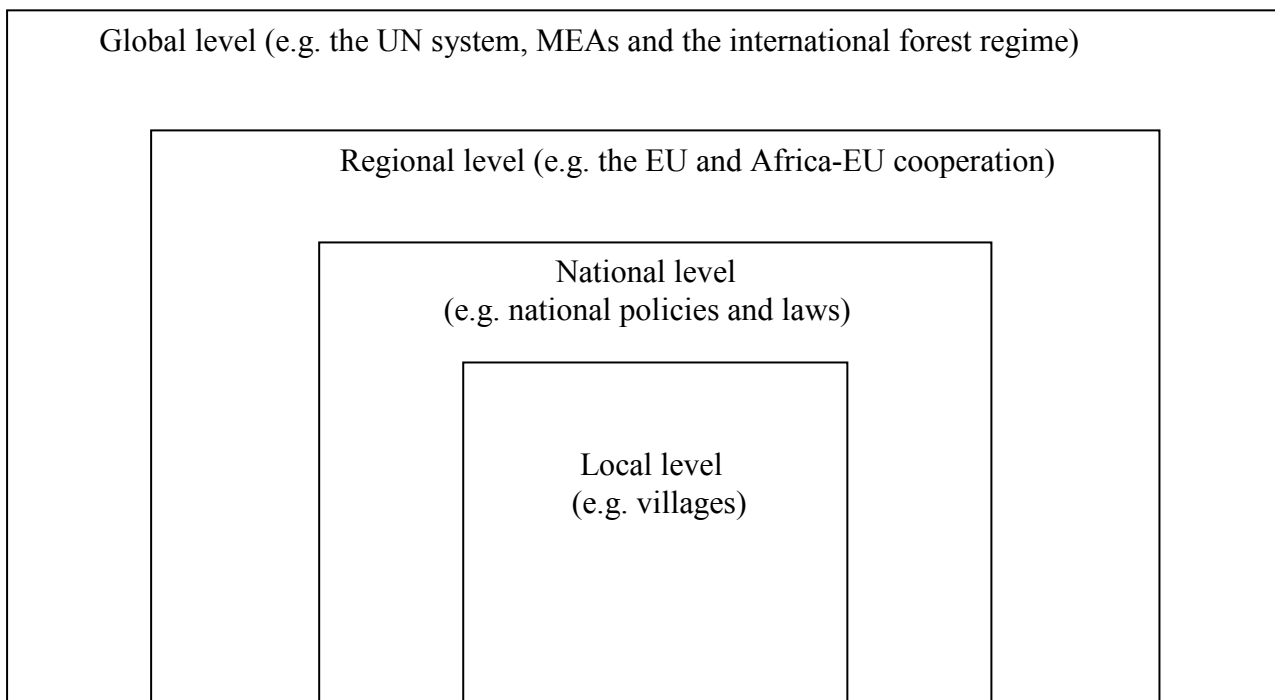


Figure 1. Global governance framework.

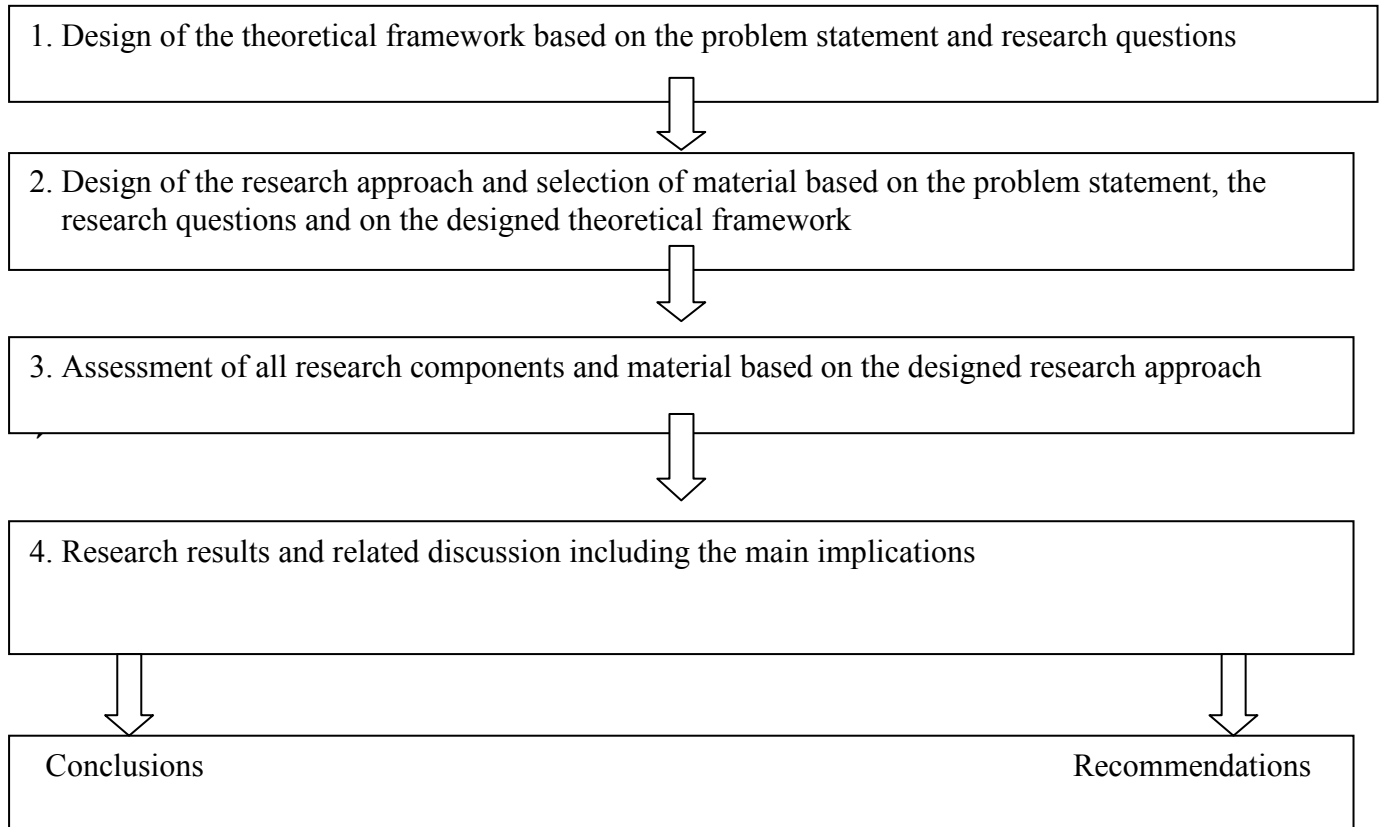


Figure 2. Analytical structure and implementation stages.

2. Framework in Ethiopia

2.1 Introduction

Ethiopia has a long and highly interesting history and it is a land with remarkable geo- and topography (the Great Rift Valley and the highlands) and a diverse fauna and flora (Munro-Hay 2002). Ethiopia is an old state and it has had international relations for a long time. In addition, Ethiopia was the only African country that became a founding member of the UN (Both 2004). Ethiopia is located in the Horn of Africa and is the 10th largest and third populous country in Africa. The land area is 1.1 million km² and the population numbers 85 million. The climate is characterized by moderate temperatures due to high altitude as well as by moderate rainfall of approximately 850 mm annually, on average. The highlands have two rainy seasons and the lowlands with a relatively sparse population, have tropical or sub-tropical climates. The topography of the country influences the climate through the effect of tropical monsoons, natural vegetation, soil conditions and the settlement history of peoples. Ethiopia has a rich nature and landscape with mountains, extensive savannas, lakes and rivers and a total of 14 major wildlife reserves. Ethiopia has plentiful natural resources, productive land and vast human resources, but most of them are not effectively developed or utilized. The land area which has potential for agricultural development comprises 60% of the total land area, but only about 15% of it is currently developed (CIA 2009; Embassy of Ethiopia 2009).

The GDP of Ethiopia consists of agriculture (46.7%), services (40.4%) and manufacturing (12.9%). Major exports include coffee, oil seeds, hides and livestock and major imports comprise machinery, equipments and industrial inputs. Ethiopia is still in the process of implementing many reforms required by a market economy. Moreover, the development of the manufacturing sector has been very slow and there has been a low level of industrial development. The raw material demand of various agricultural factories cannot be fully met by the inefficient subsistence agriculture. The service sector including trade, public administration and education has increased. The population comprises 80 nationalities, many religions and about 80 different languages. Ethiopia aims at promoting good external relations in line with its own policy and legal framework. The border lines of Ethiopia with its neighbouring countries are very long including a 1606 km border with Sudan (CIA 2009; Embassy of Ethiopia 2009). The relations between Ethiopia and Sudan are very much linked to the time and context, regional events, natural resources, religion, refugees and ethnic groups (Both 2004).

The Ethiopian terrain is characterized by a high plateau with a central mountain range divided by the Great Rift Valley which is especially vulnerable to natural hazards such as droughts and geological events. Moreover, the biological diversity of Ethiopia has regional and global significance. The highland forests and their life-supporting functions maintain a significant part of the biological diversity. The various forest ecosystems are typically under major threats such as the growing need for agricultural and grazing land (including inappropriate management practices and use of fire) and logging for timber, fuelwood and charcoal. Moreover, the situation is worsened by ineffective forest laws and lack of commitment and accountability from governmental and civil society actors. The traditional management systems practiced by various local communities are not generally fully respected and taken into account in measures to promote sustainable natural resources management. All these factors contribute to increased deforestation and forest degradation and to an overall environmental degradation and depletion of natural resources (CIA 2009; Embassy of Ethiopia 2009). The key country and forest figures of Ethiopia are presented in Table 2.

Deforestation is a major problem in Ethiopia and linked to many other complex and interrelated environmental threats. Moreover, deforestation and overgrazing cause challenges to agricultural development in Ethiopia and contribute to soil erosion and desertification (Both 2004). Agricultural activities and production levels are often significantly affected by unsustainable management practices and drought. Therefore, agricultural development and improved utilization of the full potential are essential development priorities. Ethiopia has been and is still going through major reforms including governance and market development issues. A new development strategy and economic policy have been introduced and these emphasize the role of agriculture in industrial development. A new constitution that established the Federal Democratic Republic Ethiopia was adopted in 1995. In addition, new strategies support mutually supportive integration of industry and agriculture that leads to growing exports, domestic manufacturing and food supply. There are also many NGOs working on development issues in Ethiopia (CIA 2009; Embassy of Ethiopia 2009).

Transfer of technology and skills and improvement of infrastructure and institutions and promotion of private sector development are all recognized as important development issues which are connected to the overall economic development and international trade. The economic growth has been fast in Ethiopia, but much of the potential has not yet been utilized. In the field of natural resources this means more focus on water and irrigation issues. Moreover, rural and urban poverty remains as a major development issue. Ethiopia has an unutilized development potential and productive capacity in many manufacturing and industry sectors.

Table 2. Ethiopia's country and forest data.

Country data (2008)	Population (million)	Population growth (annual %)	Surface area (1000 km ²)	GDP (billion, USD)	GDP growth (annual %)
	80.71	2.6	1 104.3	26.49	11.3
Forests in Ethiopia	Forest area (1000 ha)	% of land area	Other wooded land (1000 ha)	Forest area annual change rate 2000-2005, (1000 ha/yr and %)	Forest and other wooded land ownership (%)
	13 000	11.9	44 650	-141 / -1.1	100 (public)
Forest classification	Primary forest function	Modified natural forest (1000 ha)	Productive plantations (1000 ha)	Growing stock (m ³ /ha and total million m ³)	Change in annual growing stock 2000-2005 (1000 m ³ /yr)
	96.2 (multipurpose) 3.8 (production)	12 509	491	22 / 285 (1/4 commercial)	- 4 220
Forest stock	Biomass stock in forest (Mt)	Biomass stock in other wooded land (Mt)	Carbon stock in forest (Mt)	Carbon stock in other wooded land (Mt)	
	396 (above- ground) 107 (below- ground) 70 (dead wood) 573 (total)	365 (above-ground) 175 (below-ground) 76 (deadwood) 616 (total)	198 (above-ground) 54 (below-ground) 35 (deadwood)	182 (above-ground) 88 (below-ground) 38 (deadwood)	
Forest products removal (2005)	Total wood (1000 m ³)	Industrial round-wood (1000 m ³)	Fuelwood (1000 m ³)	% of growing stock	
	111 861	2 982	108 879	39.3	
Value of forest products removal (2005)	Total (1000 USD)	USD / ha	Industrial roundwood (1000 USD)	Wood fuel (1000 USD)	Non-wood forest products (1000 USD)
	752 869	58	74 552	641 734	36 583

Sources: FAO 2005b;c (forests in Ethiopia, forest classification and forest stock); WB 2009b (country data).

The Ethiopian industry is very dependent on imported inputs (e.g. raw materials, fuel, building materials and agricultural and industrial machinery) and on inputs from agriculture. More effective utilization of natural resources requires the development of appropriate governance institutions and management practices. This requires better understanding of the overall framework and its dynamic and complex processes (CIA 2009; Embassy of Ethiopia 2009).

The government system in Ethiopia comprises a federal government, regional states (ethnic basis), 68 zones, 2 cities (Addis Ababa and Dire Dawa) over 550 districts and numerous neighbourhoods. The capacity of government, public institutions and governance systems as well as of natural ecosystems to meet the basic needs of people has been significantly challenged by population growth and migration from rural to more urban areas driven by hope of improved living conditions including better sources of water. In addition, rural poverty is further increased by over-intensive use of small farming land of peasant families which causes land degradation and reduced production levels. This growing migration trend is a serious threat to the overall environmental sustainability in Ethiopia including lack of natural resources and healthy water as well as reduced capacity of food production to sustain the whole population and continuing land degradation. (CIA 2009; Embassy of Ethiopia 2009; UCBP 2009).

Ethiopia is facing great social and educational challenges and the situation is not alleviated by its demographic structure. The share of young people of the overall Ethiopian population is high (0-14, 46%) and almost equals the number of 15-64-year-olds which constitutes 51% of the total population. It is estimated that the literacy rate is about 43%. Ethiopia uses 6% of its GDP to education expenditures and children are expected to take part in education for about eight years. The achievement of international and national development goals and the development of sustainable governance and management practices at all levels (especially the local one) require large and immediate inputs for effective capacity building and development within the higher educational institutions such as training the trainers and extension services. The rural education and an expansion of locally targeted education opportunities have been important development issues for a long time (CIA 2009; Embassy of Ethiopia 2009).

Each university in Ethiopia is governed by a board and the board chairman is a representative of the regional state. Universities are run by a president (appointed by the federal government with consent of the region) and there are also two vice presidents (one for academic and research affairs and another for administration and finance). Faculties are accountable to the academic and research vice president. Moreover, a vice minister in the Ministry of Education gives general policy direction to universities. The national institutional development and assessment of HEIs takes place within an administrative system and the Higher Education Institutions Board is the main central steering and monitoring institution for HEIs such as universities (UCBP 2009). The faculties of universities have an academic commission which prepares proposals to the Board based on the recommendations of department councils on study programmes, courses, curricula, research and teaching materials. Teachers are selected based on specific criteria and they are continuously assessed. Traditionally, the higher education in Ethiopia has been financed by the government (12% of the education budget is allocated for HEIs) through provision of funds to institutions by the Ministry of Finance. Currently, many new universities are being established in rural areas within the University Capacity Building Program (UCBP) of the Ethiopian Ministry of Education and the Ministry of Capacity Building. Ethiopia recognizes the importance of higher education for national development and aims at improving the access to university education throughout the country (UCBP 2009).

The latest reforms in the education sector include an increased autonomy of HEIs, new curricula, education of new academic staff and training innovations. The progress of educational development

in Ethiopia has been held back by many obstacles such as cultural, historical, social and political issues like preference of work over school especially in rural areas. This means that the reform and institutional strengthening of higher educational institutions must aim at more practice oriented and relevant training closely in touch with the changing international, regional, national and local conditions. Many highly educated Ethiopian professionals move abroad because of higher salary rates and this creates a permanent shortage of qualified personnel in every sector throughout the country. Urban children attend a school more often than the rural ones due to better access to education in urban centres. Women's admission rate has traditionally been relatively low, but lately the share of both female students and teachers has risen significantly (CIA 2009; Embassy of Ethiopia 2009; UCBP 2009).

2.2 Sustainable development priorities

Ethiopia has promoted poverty eradication and sustainable development through its public policies and specific action plans. The sectoral policies, strategies and programs of the latest plan for sustainable development and poverty reduction focus on many key areas such as natural resource management and conservation, rural development, governance, capacity-building, decentralization, industry, private sector development, education, agriculture, livestock development and the environment and development. The role of agriculture in the overall national development is very significant and therefore sustainable development in that sector has a high priority within the overall development framework. In addition, a decline in agricultural productivity is among the causes of environmental problems in Ethiopia (MoFED 2006).

The main environmental problems and threats in Ethiopia include deforestation, desertification, overgrazing, soil erosion and water shortages due to unsustainable management practices. Furthermore, Ethiopia is a party to many MEAs including the CBD, the UNFCCC and the UNCCD. The development of sustainable governance and management practices in Ethiopia requires understanding of both the overall international framework and specific national and local contexts such as TFRK and other relevant knowledge and customs. Local communities have developed specific natural resources management systems based on their long-term experiences related to climatic conditions. Deforestation is a significant obstacle to sustainable development in Ethiopia and a major cause of environmental problems in Ethiopia including the loss of natural habitats, and a declining biodiversity and productive capacity of the land. Ethiopia has lost about 30% of its forests during the last century (MoFED 2006).

Government measures to control deforestation have included promotion of education, reforestation and alternative raw materials and the introduction of new forest management practices and balancing of agricultural and forest-related land uses. Many wildlife species are seriously threatened by the impact of human activities such as deforestation, civil conflicts, pollution, poaching, hunting and habitat and land degradation. In addition, natural disasters such as serious droughts and climate change have an impact on environmental conditions. There are numerous endangered species in Ethiopia such as species facing global extinction. Thus, capacity building for environmental protection and the promotion of natural environments is a major development issues (MoFED 2006).

Natural resources management and conservation in Ethiopia focuses on integrated development and utilization approaches (forest, land, soil and water) for improved livelihoods and resource protection for future generations. Activities in this key area comprise wise use of natural resources and development of both domestic and international markets and focus on human resources and appropriate technology. Additionally, there is an urgent need to promote the overall capacity of the

whole sector with an emphasis on extension services and research. Governance development involves strengthening of law-making mechanisms and support to new law-making procedures, legal drafting and policy formulation. Moreover, capacity building for governance includes a focus on comprehensive frameworks and efficient institutions that support appropriate management practices. Environmental resources and their sustainable management provide a basis for economic and social development and the goods and services needed for economic growth and poverty reduction. In general, development activities aim at managing risks through capacity-building for improved governance structures and institutions with broad participation of all stakeholders especially at the local level (MoFED 2006).

Natural resources management in Ethiopia, and especially forest management, involves a conflict of interest between and among multiple stakeholders (Bekele 2008). Therefore, successful implementation of natural resource policies, laws and regulations requires institutional stability, organizational strength and flexibility. Therefore, the introduction of sustainable natural resources management systems requires building of conflict management institutions especially with a focus on conflict resolution between local community interests and State development objectives. The integrated implementation of UNFCCC, UNCCD and CBD through international technical and financial inputs could contribute to sustainable natural resources management and environment protection, but various policy constraints and organizational limitations would have to be overcome first. These comprise e.g. lack of up-to-date and reliable data on natural resources and the environment and the need for capacity building, information exchange and involvement of regions as well as the integration of the Conventions into overall national planning framework. The key development priorities for national policies, strategies and programmes include (Bekele 2008):

- Enforcement of policies and legislation including political will and active administration support to implement policy objectives.
- Implementation of policies through (1) identification of the real problems and appropriate analysis of alternatives including conflict management, (2) transformation of policies into obligatory provisions (i.e. laws) and strategies into regulations, (3) fair, secure and well defined property right arrangements and (4) people's participation and decentralized resources administration that allows communities and individuals to access, manage and use resources.
- Institutional capacity building including development of stable and foreseeable institutions that create incentives for stakeholder cooperation and related governing rules.
- Incorporation of community-based institutions and knowledge (e.g. informal institutions) to policy formulation processes and their implementation.

The remaining natural forests are essential for the restoration of the native woody species diversity in degraded areas, but fast growing and easily established tree plantations can also contribute to biodiversity management. The linkage between natural forests and plantations implies that the conservation of natural forests should be given high priority and importance (Yirdaw and Luukkanen 2003). Forest plantations have a high potential for restoring natural forest ecosystems on degraded lands at a comparatively low cost when used as “nurse crops” in natural regeneration of woody species. Biodiversity management could thus be one of the main aims of forest plantation management (Yirdaw 2001). Sustainable development requires awareness and understanding of the interdependence of natural, socio-economic and political systems at local and national levels. Deforestation and unbalanced production practices as well as inappropriate land-use systems and land-tenure policies contribute to increased land degradation and desertification. Therefore, improved land-tenure systems and secure land ownership are needed to promote improved land management (Taddese 2001).

Development priorities in Ethiopia include sustainable development for poverty reduction and enhanced food supply. Moreover, there are major challenges for economic development such as an urgent need to promote human and institutional capacities and to combat environmental degradation and support private sector development and sustainable agricultural production (AfDB 2009). Ethiopia has made significant efforts to promote economic development and private sector development. In addition, it has supported the establishment of investment environment for foreign investors especially in the field of agriculture and the related processing industry (Embassy of Ethiopia 2009). Furthermore, national development priorities include governance for sustainability and institutional and human capacity building as well as infrastructure development, food security and basic services (WB 2009a). In addition, the government structure in Ethiopia has been transformed into a federal system with more democratic governance and decentralized authority with devolution of powers to regional states and district authorities (*woredas*). Agriculture and service sectors play a major role in national development. In brief, promotion of sustainability and improved governance are essential development goals jointly with economic growth, education, health, poverty reduction and reducing drought vulnerability (African Economic Outlook 2009a).

The UNDP (2009a) promotes the achievements of the Millennium Development Goals and the Millennium Declaration principles in Ethiopia. These principles include the management, conservation and sustainable development of all types of forests, the principles of sustainable development, good governance and rule of law as well as effective implementation of MEAs, human rights, democracy and poverty reduction (UN 2000a). Sustainable development, poverty reduction and institutional capacity building for democracy are especially emphasized as special needs of Africa. Furthermore, the UNDP works in the area of the environment and sustainable development with an aim to promote sustainable environmental and natural resources management also for ensuring compliance with MEAs and the implementation of federal and regional environmental laws, policies, strategies and action plans taking into account the integration of environmental and energy issues into development planning and addressing climate change challenges (UNDP 2009a).

The EU is a major partner in the promotion of the UN Millennium Development Goals in Africa. The EC treaty⁶ (EU 2006a) states that the EC promotes sustainable economic and social development as well as the integration of the developing countries into the world economy and poverty reduction in the field of development co-operation. The Lisbon Declaration (EU 2007a) stated that a new strategic partnership between the EU and Africa aimed at promoting progress and development based on democracy, the rule of law, good governance and human rights. It also recognized the need to enhance global governance within an open and multilateral framework. The EU support to Ethiopia is mainly focused on rural development and both democratic and economic governance such as capacity-building in key institutions. Moreover, supported fields comprise natural resource management for maintenance, restoration and enhancement activities as well as environmental assessments and the conservation of biological heritage (EU 2007b).

The Africa-EU Strategic Partnership aims at promoting sustainable development such as the establishment of new partnership institutions, instruments and long-term cooperation (EU 2007c). This partnership is based on the following long-term and inter-related priority objectives which set a framework for future development of specific strategies: 1) peace and security, 2) governance and human rights, 3) trade and regional integration and 4) key development issues. The partnership aimed at advancing sustainable natural resources management, environmental sustainability, the rule of law and the respect for international law. Moreover, it strongly supports democratic

⁶ Article 177, p. 125-126.

governance, local governance, human rights and institutional development and reform as well as corporate social responsibility. The partnership promotes comprehensive dialogue on all aspects and concepts of governance. In addition, development priorities include addressing climate change challenges and the establishment of programmes and mechanisms to develop regional and pan-African standards, norms and quality control for trade and private sector development, in line with international standards (EU 2007c).

3. Framework in Southern Sudan

3.1 Introduction

Southern Sudan is characterized by most of the remaining forests of the whole Sudan as well as by an exceptionally diverse nature and population. This implies that the forest sector development is highly important. The forest types in Southern Sudan mainly comprise low-rainfall woodland savanna as well as areas of high-rainfall woodland savanna, tropical evergreen forests and plantations such as the teak (*Tectona grandis*) plantations in Yei County (UNEP 2007). In addition, the fact that the South has a substantial forest reserve means that the development of sustainable regional and international trade development is a major development issue.

Forest resources in Southern Sudan are especially threatened by excessive commercial exploitation and growing demand for construction materials, fuel wood and charcoal (USAID 2007). This implies that sustainability and legality issues must be addressed in the context of trade in various forest products and highlights the importance of local level capacity building for improved governance and sustainable management practices. The basic information about the whole of Sudan and its forest resources is presented in Table 8 while specific data related to Southern Sudan are shown in Table 9.

Southern Sudan has large and diverse forest and woodland resources which provide multiple products and services and also many ecological zones with high levels of globally important biodiversity (USAID 2007). The regional environments in Southern Sudan comprise various types of savanna (based on rainfall and soil profile) characterized by low-density woodlands, mixed scrub and grassland, clay flood plains and wetlands. The Upper Nile State is characterized by flood plains, savanna and wetlands (savanna in Er Renk County). There are semi-arid, dry monsoon and wet monsoon climatic zones in Upper Nile State. In addition, the State has one designated and one proposed game reserve as well as large movements of cattle, sheep and goats in and out of the State due to nomadic pastoralism (UNEP 2007). The soil and bio-climatic conditions in Southern Sudan are favourable for forest plantation development and the rainfall averaging 500-2000 mm in the whole of Southern Sudan and 700-1300 mm in Upper Nile State can support many species such as mahogany, teak, eucalyptus and pines (GoSS 2007).

Upper Nile State has 12 counties including Renk and a population of about 750 000 including many displaced people and extensive natural forests and woodlands. Conflicts have seriously limited the development of sustainable forestry and agriculture. Moreover, livestock overgrazing and widespread forest fires have constrained the reforestation and afforestation efforts. The commercially most valuable gum producing species are *Acacia senegal* and *A. seyal*. The main agro-ecological zones in Upper Nile State are the Iron Plateau (weathered acidic soils) and the flood plains around the River Nile with rich alluvial soils (GoSS 2007). Southern Sudan has a long border line with Ethiopia also in major part of Upper Nile State. The National and State Forest Reserves

serve special purposes such as the management and protection of natural forests and woodlands, to comply with international obligations and to promote research and development (GoSS 2007).

Table 8. Sudan's country and forest data.

Country data (2008)	Population (million)	Population growth (annual %)	Surface area (1000 km ²)	GDP (billion, USD)	GDP growth (annual %)
	41.35	2.2	2505.8	58.44	8.3
Forests in Sudan	Forest area (1000 ha)	% of land area	Forest area (annual change rate 2000-2005, 1000 ha/yr and %)	Forest and other wooded land ownership (%)	Primary forest function (%)
	67 546	28.4	- 589 / -0.8	97.7 (public) 2.3 (private)	44.9 (production) 2.6 (protection) 12.7 (conservation) 39.9 (non or unknown)
Forest classification	Primary forest (1000 ha)	Modified natural forest (1000 ha)	Semi-natural forest (1000 ha)	Productive plantations (1000 ha)	Protective plantations (1000 ha)
	13 509	47 282	1 351	4 728	675
Forest stock	Growing stock (m ³ /ha and total million m ³)	Change in annual growing stock 2000-2005 (1000 m ³ /yr)	Biomass stock in forest (million ton)	Carbon stock in forest (million ton)	
	14 / 939	- 8 200	2 235 (above-ground) 827 (below-ground) 337 (deadwood) 3 398 (total)	1 117 (above-ground) 413 (below-ground) 168 (deadwood)	
Forest products removal	Total (1000 m ³)	Industrial roundwood (1000 m ³)	Fuelwood (1000 m ³)	% of growing stock	
	22 230	2 716	19 514	2.4	
Value of forest products removal	Total (1000 USD)	USD / ha	Industrial round wood (1000 USD)	Wood fuel (1000 USD)	Non-wood forest products (1000 USD)
	1 153 795	17	82 611	379 143	692 041

Source: FAO 2005b;d (forests in Sudan, forest classification, forest stock, forest products removal and value of forest products removal); GoSS 2007 (Forests in Southern Sudan, forest reserves in Southern Sudan and Upper Nile State); WB 2009d (country data).

Table 9. Forests in Southern Sudan.

Forests in Southern Sudan	Forests and woodlands (km ²)	% of total land area	Tropical moist forests (km ²)	Potential land for forest plantations (%)	Potential land for irrigated plantations and drought resistant species (%)
	191 667	29	25 000	50	50
Forest reserves in Southern Sudan and Upper Nile State	Reserved forests (ha)	Under reservation (ha)	Upper Nile State, reserved forests	Upper Nile State, under reservation	Total forest reserves (ha)
	762 778	442 908	204 488	361 093	1 205 686

Source: GoSS 2007.

According to UNEP (2007) regional climate change and desertification contribute to poverty and conflicts. There are numerous development issues which are significant for forest governance and SFM such as institutional, policy and legal framework for forest and biodiversity conservation and capacity building for sustainable natural resources management as well as broader trends such as population movements and decentralization development all linked with climate change challenges (USAID 2007). Population movements due to various reasons such as major conflicts have significant environmental impacts, and deforestation, land degradation and natural disasters (droughts and floods) all contribute to increased risks and negative impacts (UNEP 2007). All this indicates that comprehensive, cross-sectoral and consistent approaches are definitely needed for overall sustainable development, with special emphasis on new governance approaches and sustainable management practices involving all levels. Major issues also include the consideration of sustainability and environmental aspects in the context of industrial development such as the oil industry in Southern Sudan with oilfields, a pipeline and concession areas also in Upper Nile State.

The new powers of the GoSS allow legislation related to government structures, to deliver services at all levels, and the establishment of minimum standards and uniform norms in Southern Sudan on trade, land, the environment, education, agriculture, wildlife and local government, as well as on other issues in line with the peace agreement. Moreover, The GoSS has power over matters (defined in the INC) that cannot be effectively dealt with by a single state and require GoSS legislation or intervention such as forestry, natural resources, rural planning, business, trade licences and conditions of operations. The new powers of states include the development, conservation and management of forests and other natural resources as well as the management, utilization and lease of land. Other powers are related to local government, rural planning, regulation of agriculture, irrigation, traditional and customary law and enforcement of laws within specific state territory (INC 2005).

The GoSS and state governments have legislative and executive competencies over environmental management, conservation and protection. The law which most effectively deals with the subject matter is preferred in a case of power conflicts between the levels of government with respect to GoSS norms and standards, the principle of subsidiarity, the welfare of people and the protection of human rights and fundamental freedoms (INC 2005). The region of Southern Sudan has an overall

federal structure with a major transfer of powers from the national to state level (WB 2009c). A multi-donor trust fund (MDTF) has been established in line with the CPA provisions to support development activities in Southern Sudan such as governance improvement, institutional capacity building, the rule of law, human resources development, poverty reduction and sustainable and diversified growth. In addition, development activities have included forestry, agriculture, education, livestock, water resources and private sector development (WB 2009c;d).

The history of political reforms in Southern Sudan is characterized by continuity and change, but with a lack of well-established state-structure and loose connections between the centre and the region (Rolandsen 2005). Sudan has a repetitive history of complex crises with various historical, sociological, political, economic and international aspects (Khalid 2003). The civil wars in Sudan have been caused by various historical facts such as governance in centre-periphery relations and balance of power between the central and regional governments and legal rights issues. Other key causes comprise the complex and diverse nature of this large country, the interests of foreign governments and investors in natural resources and inequal economic, educational and political development and lack of consensus on national and regional development (Johnson 2003). Post-conflict development requires new political, social and economic arrangements for more equitable governance and more pragmatic policy-making. Moreover, it requires commitment to reconciliation and acknowledgement of the diversity of peoples and their rights of empowerment (Iyob and Khadiagala 2006). Furthermore, post-conflict development in Southern Sudan requires focus on national and economic development based on its diverse resources and on rights to education and development of infrastructure (Both 2002).

3.2 Sustainable development priorities

The environmental situation is serious in Southern Sudan and especially critical in the Northern Upper Nile State including Renk County. Deforestation, land degradation and desertification are still proceeding at an alarming rate. Moreover, climate change challenges, declining biodiversity and continuing water shortage as well as the population pressure, over-grazing and a general lack of resources are major obstacles to reversing the trend of unsustainable development and deteriorating livelihoods. The current situation offers very little protection from unexpected natural events; it shows for instance very limited adaptation and mitigation capacity against the effects of climate change. Furthermore, there are serious policy, institutional and market failures, and environmental governance structures cannot cope with the current trend of increasing environmental threats. In general, environmental concerns have not been a priority and they have often been completely neglected. Rapid population growth and climate change are major underlying factors contributing to various development challenges (LAMPTESS 2009).

Major environmental and social issues include lack of environmental governance and management; deforestation and forest degradation; severe degradation of agricultural and range lands; desertification; water shortages; loss of vegetation; high dependence on wood-based fuels; low buffers against drought; over-population and over-grazing. In brief, environmental degradation is severely constraining development. Consequently, policy reform, capacity-building and institutional strengthening for sustainable natural resources and environmental management are desperately needed to promote overall sustainable rural development including improved livelihoods and environmental conditions (LAMPTESS 2009).

In Renk County, there are many challenges to sustainable rural development challenges such as the drought which often causes immediate shortages of food. Moreover, uncontrolled burning of forests

and other areas with trees due to gum activities is causing a significant loss of forest regeneration and biodiversity and leads to general deterioration of the productive capacity of the land. Various unsustainable management practices and uncontrolled utilization of natural resources are taking place on government-owned lands. For example, the designated forest protection area in Renk County is almost destroyed by continuous logging, burning of charcoal and extensive de-barking of trees with axes for gum production which ultimately leads to the death of those trees. The Forest Department or other departments are not able to monitor or control these harmful activities and there is almost no implementation of new policies or regulations. The forestry staff is highly educated, but the initiatives of the field level officers are not sufficiently supported by higher level officials and there are no high level regulations or guidelines for the forest officials in the field. In addition, the chain of command and forest governance structure between the GoSS MAF DG Forestry and Upper Nile State government (in Malakal) is not fully functional (LAMPTESS 2009).

The UNDP (2009b) has identified that development priorities in Southern Sudan include urgent post-conflict capacity building and development of institutions for governance and the rule of law as well as an effective implementation of policies and legislation. Development activities take place at all levels and include community level measures in priority areas with the participation of both state institutions (GoSS, states and counties) and non-state actors. In sum, good and democratic governance and local government as well as prevention of further conflicts are major development issues in Southern Sudan (UNDP 2009b). In general, Sudan has aimed at improving its relations with its development partners and neighbouring countries such as Ethiopia. Governance improvement and promotion of a sustainable, diversified and equitable economic growth are also essential development priorities. Moreover, agricultural development requires major investments in rural infrastructure, research, materials and equipment as well as measures such as the application of land conservation measures and provision of sustainable rural credit services (African Economic Outlook 2009b).

Local people have knowledge of their environment that may help in the development and assessment of sustainable environmental management practices and in particular locally appropriate sustainable management systems. However, efficient alleviation of environmental problems requires collective actions at all levels (Hares et al. 2006). Environmental governance is a major development issue in Southern Sudan, and the related power and responsibility matters in line with the INC (2005) include the leading role and autonomy of GoSS and states in regional governance as well as the need to promote environmental governance, legislation and management (UNEP 2007).

The people of South Sudan have the right to control and govern their own affairs as a geographic and political entity and the right for self-determination including the definition of their future status. Development principles include recognition of the need for the involvement and participation of the people of South Sudan at all levels of government and national institutions. In addition, these principles encompass good governance, accountability, transparency, democracy and the rule of law at all levels of government (CPA 2004). Moreover, the regulation of land tenure and use involves many levels of authority and should be carried out at an appropriate level of government. All levels of government must also develop relevant legislation to better incorporate customary laws and practices as well as the rights over local heritage and international obligations and practices (INC 2005).

Major investments in sustainable development are needed together with the building up of environmental and natural resources governance that enables conflict resolution (UNEP 2007). A key threat to forest resources in Southern Sudan is uncontrolled commercial forest exploitation and

the demand for construction materials, fuelwood and charcoal. Furthermore, there is a seriously limited institutional capacity to manage natural resources (USAID 2007).

Governance improvement is a major forest sector development priority in Southern Sudan and it encompasses all forest resources and the timber trade. Sustainable utilization of both natural and planted forest resources and the future wood supply necessitate the establishment of appropriate governance and management structures. Moreover, forest-sector planning must contribute to balancing of the current and future supply of and demand for hardwood and softwood (domestic and export markets) through appropriate management of both natural forests and forest plantations in line with the new GoSS framework for designated commercial and protection forest areas (USAID 2008).

The desertification problem is severe in Sudan and strategies for sustainable development, natural resource and environmental issues should be more comprehensive, cross-sectoral and cover the whole issue area (Ministry of Agriculture and Forestry 2006). Moreover, improved coordination of and effective linkages between the various institutions (international and national organizations and NGOs) involved in combating desertification and better utilization of traditional knowledge and practices are needed. The main causes of continuous desertification include deforestation, overgrazing, over-cultivation, bush removal, unplanned burning, cultivation on marginal lands and irrational use of heavy machinery. Deforestation can be combated for instance, with community forests and shelterbelts. Desertification has major impacts on natural resources such as a decline of crop productivity, a deterioration of environmental quality and degradation of rangelands, this process then becomes an underlying cause for conflicts (Ministry of Agriculture and Forestry 2006).

Southern Sudan is facing major sustainable development challenges in all sectors of economic development. Sustainable development in Southern Sudan can be supported by capacity-building for sustainable practices in land and natural resource management. Key development issues include community-based land use, natural resource and environmental management planning and the development of government-community partnerships (FAO 2008b).

Sustainable development requires that the main land issues such as tenure arrangements and competition for access to land and natural resources are resolved. Development priorities include the establishment of policy, land use and natural resource management frameworks that contribute to local participation and incorporation of local best practices and experiences into national policy and law development. In addition, issues that need to be addressed include contradictions between governmental land policies and the actual needs of the rural population as well as the division of responsibility related to legal rights, land use and other issues between public and civil institutions. In sum, improvement of resource governance requires policy and law development as well as institutional capacity building (FAO 2008a).

Moreover, sustainable development in Sudan is a major environmental and socio-economic challenge, since the lack of sustainable land use is a common cause of land degradation, poverty, desertification and environmental problems. Sustainable management, conservation and wise stewardship of natural forests and woodlands as well as capacity-building for environmental management are essential development priorities. Sustainable development requires appropriate land use plans and policies as well as environmental information to support sound natural resource conservation, use and management. Other major issues common for the whole country include environmental education, institutional capacity-building and international cooperation in the implementation of MEAs (USAID 2003). Additionally, urgent development priorities comprise a reform of governance (at federal, state and local levels), policies and legislation that address land

tenure and use issues. Comprehensive planning supported by capacity-building at state and local levels and by research should be encouraged jointly with increased training and education efforts ((Ministry of Agriculture and Forestry 2006).

In Southern Sudan, sustainable development can be supported through capacity-building for sustainable practices for land and natural resource management (FAO 2008b). Furthermore, community-based land use, natural resource and environmental management planning as well as government-community partnerships are needed. Establishment of a land law and a policy for Southern Sudan involves development of statutory laws and clarification of land tenure rules and regulations under customary law (FAO 2008b). The main challenges facing environmental governance include meeting the international obligations and building appropriate governance structures and capacity as well as providing resources for regulatory authorities for implementing the existing legislation (UNEP 2007).

There are many opportunities and risks related to forest management and forest industry development in the South. A great potential for industrial and foreign trade development exists there, provided that appropriate governance and sustainable management practices can be established. In general, environmental governance needs to be integrated into other development issues including the application of environmental management approaches such as EIA and other standards and guidelines in development projects (UNEP 2007). The legal foundation of Southern Sudan (The Interim National Constitution) supports legislative action and measures that secure ecologically sustainable development and the use of natural resources jointly with promotion of economic and social development. The new forestry policy is in line with the best practices in SFM and it is based on precise guiding principles such as sustainable development and community involvement. The main forestry development priorities include (USAID 2007):

- Policy and legal development and capacity strengthening in the forestry and environmental sector.
- Decentralization of natural resources authority and support to community forestry, so as to alleviate governmental responsibility for forest management.
- Support for 1) certification of construction material and charcoal enterprises (in which sources of wood can be traced and verified), 2) protected area management for biodiversity conservation, 3) State Forest Departments and forest guards to combat illegal trade in forest products and 4) sustainable management of natural forests and the establishment of community and privately owned wood lots to meet the growing demand for wood and wood products.
- Preparation and implementation of forest management plans and training in SFM.
- Capacity strengthening at local government levels to support natural resource management responsibilities.
- Addressing climate change through maintenance of natural forests and controlling slash and burn agriculture.

In Sudan, some assessments have been carried out on the implementation of global commitments to improved forest governance and SFM in Sudan; they include the delivery of reports to international forest related institutions and MEAs. These indicate that challenges have been acknowledged, but much effort and resources are still needed for further implementation of international commitments and obligations. The implementation of the IPF/IFF Proposals for Action in Sudan would require paying attention to priority issues such as forest protection, combating desertification, expansion of forest plantations to meet the local needs, secure land tenure arrangements, TFRK, recognition of customary and traditional rights, awareness raising and monitoring of trends in the supply of and demand for wood and non-wood products (UNFF 2004a). Moreover, key priorities comprise full

participation of stakeholders (governmental institutions, civil society and local communities) and integration into forest sector planning, decision-making and sustainable forest management for instance through capacity building (training of trainers and extension), C&Is and technology transfer (UNFF 2003).

Furthermore, previous research clearly indicates many critically important development priorities related to forest governance and SFM. The obligations of the country to implement international agreements to combat desertification and to promote sustainable dryland development must be accompanied by identification of the causes of environmental degradation, desertification and poverty (Laxen 2007). Achievement of forest policy goals also requires efficient communication and enforcement of modern forest laws which reflect the new dimensions of forestry with proper consideration of actual rural needs and benefit sharing (ElNasri 2000).

Lack of forest law application, sustainable forest management and adequate infrastructure contribute to increased deforestation, negative climate and environmental impacts and a decline of the overall production capacity. Furthermore, there is a serious lack of resources for appropriate natural resources management and community-based forest management approaches. Development priorities include an integrated approach to natural resources management, a firm land use policy and the involvement of local communities in natural resource management. Specifically, clearly stated natural resource utilization law is needed jointly with its efficient endorsement that would guarantee the 10% reforestation obligation on agricultural lands (Onak 2005).

There are previous studies on collaborative forest management in Sudan. Case studies on Sudan (the Elain natural forest reserve conservation and the Elrawashda forest reserve rehabilitation) indicate that collaborative forest management can be practiced in a way that benefits are shared within the local community and local people are motivated to participate in forest rehabilitation and conservation including community-based forest protection arrangements. The main tree species planted by farmers in Sudan is *Acacia senegal*. Moreover, local people support participatory forest management and this contributes to good forestry practice. There is a need for more focus on SFM, partnerships between public and private actors in forest-sector development, forestry extension, tree planting on farms and on the establishment of new community-managed forests. The role of C&I for sustainable forestry development with partnerships and community participation is becoming more important and C&I are useful tools for sustainability evaluation of forest development and management (Luukkanen et al. 2006).

The results of the case study on eastern Sudan clearly indicate that local people prefer sustainable and participatory forest management practices aimed at meeting the needs of local people (Glover 2005). Moreover, local people want to participate in decision-making and in sharing of benefits. They are also willing to participate in future tree planting and forestry extension should be developed to promote effective participation of local people in forest establishment and management. More secure land tenure system is clearly needed to prevent the crisis of land utilization. Furthermore, land-use policies need to focus on the devolution of natural resource management to local communities and encouragement of local level institutional and normative regimes for sustainable resource management. The results also suggest that collaborative forest management can produce multiple benefits such as reduced vulnerability and improved governance. SFM should be given an essential role in the design of future land use and rural livelihood strategies and plans (Glover 2005).

In Southern Sudan as a whole, rural communities should be supported in improved natural resources management, afforestation, combating deforestation and desertification, efficient fuel-

wood use and in environmental protection. Additionally, multipurpose forest management, a sustainable supply of raw material for the forest industry and community participation in forest and environmental management are highly important development issues. Training and education as well as technical assistance and extension are essential elements of better forest policies and management practices. Additionally, new forest and land-use policies need to emphasize cross-sectoral participation, commercial forestry and the establishment of shelterbelts and windbreaks around agricultural lands (ElNasri 2000). Globally, the SFM approach applies to the management of all types of forest plantations. Sustainable plantation forestry in the tropics requires holistic management (accounting for all dimensions of sustainability) and good standards as well as maintenance of the long-term productive capacity through proper management practices and management of environmental impacts (Evans and Turnbull 2004).

In developing countries in general, local communities should be encouraged to contribute to the formulation and implementation of laws and rules on natural resource utilization and land use. Development options should include forestation of degraded lands so as to address climate change. Moreover, the lack of sustainable management and appropriate governance has caused failures in rain-fed farming systems and thereby environmental problems. New management approaches should address all environmental and socio-economic issues and include capacity-building and training for sustainable practices (Adam 2007). In Sudan, competition over land and natural resources has been and is a traditional source of conflicts. In brief, the reform of land tenure legislation and related administration and management is a complex and long-term process that involves the central and local government levels as well as expertise from international actors. An overall framework for land issues is critically needed in Sudan for a coherent land policy, an adequate legislation, functioning institutions and law enforcement capacity (Pantuliano 2007). The most urgent development priorities for Sudan include (Pantuliano 2007):

- Customary land management, rights and administration also dealing with larger areas and addressing land conflicts between farmers and pastoralists or traders (in timber and other forest products).
- Clarification of the land-use right situation so as to facilitate decision-making on long-term land leases and concessions.
- Establishment of standardised and transparent procedures for property transfers and leaseholds.
- Creation of a distinct community-based land administration system with modernised customary land management institutions.

3.3 Forest governance

The Ministry of Agriculture and Forestry (MAF) of the Government of Southern Sudan (GoSS) has developed a Forest Policy Framework (2007) which forms the foundation of forest governance under its jurisdiction. This framework has been prepared in line with the international forest policy development (e.g. the Forest Principles, IPF and IFF). Moreover, this framework provides a new vision and the main goals and principles for SFM and aims at contributing to the formulation and implementation of a policy and a legislation which ensure proper balance between the use and preservation of forest resources. The vision of the MAF on forestry is: *“A green Southern Sudan, with fully recovered natural and plantation forests, effectively managed for sustainable socio-economic development”* (GoSS 2007).

The essential development priorities include the establishment of effective management regimes to ensure sustained supplies of fuelwood, rural construction materials, and timber for domestic use and

export. In addition, the framework promotes a devolved structure of forest governance regimes for enabling an equitable access to forest benefits for all stakeholders and for sharing of the associated costs. Important issues also include the mutually supportive interaction of forests and trees with agricultural development. The main background elements of the new Forest Policy Framework are stated as follows (GoSS 2007):

- The MAF gives highest priority to efforts aimed at achieving sustainable rural development and conservation of the natural resources and the environment.
- Forests and forestry activities (including agroforestry) are expected to contribute significantly to 1) revenue generation, 2) food security, 3) poverty alleviation and 4) provision of environmental services.
- Natural forests and forest plantations 1) are important in the context of the overall GoSS strategy to promote integrated rural development (including basic needs such as sustainable household food security, shelter, woodfuel, safe and clean water, good local governance, empowerment and self reliance) and 2) play an essential role in stabilizing and increasing the agricultural production and socio-economic development.
- The forest sector is expected to contribute significantly to resettlement and rehabilitation efforts.
- The successive wars have caused extensive damage to forests and woodlands and a destruction of the entire forestry sector and its infrastructure.

In general, sustainable management of forests and other natural resources plays a key role within the overall development policy framework in Southern Sudan. Consequently, policy, legal and institutional reforms as well as capacity building and development for good governance, sustainable natural resources management and environmental protection can significantly contribute to sustainable development in Southern Sudan. Unsustainable management practices, uncontrolled utilization of natural resources and environmental degradation are now seriously constraining the achievement of the stated development goals. Thus, sustainable natural resources and environmental management need to be better integrated into local development and post-conflict capacity-development contexts. Furthermore, the reform of forest policy and legislation is a process that needs to be supported by appropriate development of institutional and human capabilities in line with the global commitments and obligations.

The main environmental threats that need to be addressed urgently include deforestation, forest and land degradation, desertification, the loss of biodiversity, water shortages in Southern Sudan and climate change challenges. Other issues that influence natural resources management and environmental protection include a general lack of environmental management as well as continuing conflicts, the population pressure and over-grazing. The Forest Policy Framework represents new visions and development aspirations of the people of Southern Sudan during and after a great transition (characterized by the CPA and the establishment of GoSS responsibilities) and replaces the Forest and Environment Act (2003) which included a provision for mandatory forested cover on agricultural lands (10% in rain-fed agricultural schemes and 5% on irrigated agricultural land).

The MAF Directorate of Forestry is responsible for the management of National Forestry Reserves (NFR) including the State Forest Reserves (SFR), in formalized partnerships with State governments and local communities and involving provisions for sharing the benefits from forest resources (GoSS 2007). The MAF is obliged to ensure the protection and management of various types of natural woody vegetation for biodiversity conservation, research purposes, seed production programmes, environmental stabilization and local and national socio-economic development. Moreover, it is responsible for compliance with international obligations (MEAs). The new forest

framework is based on the new forestry paradigm developed within the UN system (forest-related MEAs and processes) and aimed at addressing the emerging international issues such as the climate change challenges.

The land ownership issue is controversial in Southern Sudan and policy on land ownership must be properly addressed to prevent it from having an adverse impact on the use of forests and the related responsibilities. The Comprehensive Peace Agreement (CPA 2005) guarantees that GoSS-MAF will assume the ownership of forests and woodlands within its territory and manage and protect the forest plantations and reserves as a national resource and heritage. Since the formation of the Government of Southern Sudan (2005) the GoSS-MAF has addressed illegal activities in forests by issuing several ministerial orders to implement a degree which bans illegal logging in Southern Sudan.

Measures to end illegal activities included prohibition of teak and mahogany exports from Southern Sudan, cancellation of provisional contracts, the appointment and deployment of forest guards, a compulsory registration of private plantations and the issuance of licenses to private plantation owners as well as licensing of individuals wishing to trade in forest products (including charcoal). The forest sector mission of the MAF is based on the following elements (GoSS 2007):

- Development and implementation of appropriate policies, legislation, institutional reforms and strategies for the forest sector.
- Establishment and ensured sustainable management of industrial and non-industrial plantations to meet a growing wood demand.
- Reversing the trend of declining forest cover and ultimately ensuring a 20% forest cover.
- Encouragement and support to competitive private sawmilling and manufacturing forest industry, based on supply from sustainably managed forests.
- Strengthening of forestry institutions and services to 1) increase the productivity, 2) achieve a household food security, 3) alleviate poverty and 4) contribute to the macro-economy.
- Combating desertification and desert encroachment.
- Protection and conservation of forest biodiversity.
- Protection of agricultural land.

4. Theoretical framework

4.1 Introduction

The design of the theoretical framework for this study was based on the original problem statement and the selected material as well as on the aims of the study including the specific research questions. The five main elements of the designed framework comprise: 1) sustainable development, 2) SFM, 3) global governance, 4) international law and 5) EU law. The theoretical approach was based on inductive logic in a sense that this study was organized starting from the research problem (strongly linked to practice and actual needs), followed by the collection of the research material. The framework of material-based qualitative research was partly formed during the analysis process and clarified and defined towards the end of the study. Moreover, the approach was based on deductive logic in a sense that the key elements of the assessment (SFM and good forest governance) are derived from multiple theoretical frameworks as outlined in the following sections. In sum, the designed approach was based both on existing data and theory. The next stage in this study consisted of stating the research questions and a related assessment of the material, based on the

research problem. This was followed by thematic classification of the results of the assessment and analysis as well as by related generalizations, links to other studies and new theory development.

Furthermore, the design of the theoretical framework was partly driven by the fact that previous writings and studies usually have not discussed or placed SFM and good governance within broader international frameworks such as global governance and international law. Therefore, this study approached these topics through a holistic and comprehensive framework and multidisciplinary and integrated approach. The underlying idea was to provide a broader perspective to these key concepts within their overall theoretical framework, especially with a view to contribute to informed decision-making in a real world.

4.2 Sustainable development

4.2.1 Introduction

Sustainable development is a fundamental part of the present theoretical framework since SFM is ultimately based on the principles of sustainable development. Moreover, good forest governance is also inter-linked with this framework for instance through the internationally recognized and agreed principles and elements of good governance. Moreover, the sustainable development framework provides an outline of the main background elements that underlie and are closely connected to the study of SFM and good forest governance.

Sustainable development⁷ (SD) has been established as the leading development goal and principle at the international level and it has direct consequences for all branches of development including the forest sector. Sustainable development is an evolving and dynamic approach and future oriented, based on changing and various contexts. Moreover, the sustainable development process refers to sustainable use of resources (to the sustainable and efficient use of forest resources and to reduced deforestation) and comprehensive, cross-sectoral and integrated approaches to development. In order to fully understand the main features and principles of sustainable development it is essential to look into the evolution of this development paradigm within the context of international policy processes.

The Declaration of the UN Conference on the Human Environment (UN 1972) outlined many development principles and recognized the common global responsibility to improve and protect the environment (both the natural and the man-made) for present and future generations. The key issues in this context comprised safeguarding of natural resources for the benefit of present and future generations including rational planning and appropriate management. This notion implies that the productive capacity of renewable resources should be maintained jointly with appropriate restoration and improvement activities. In addition, this declaration highlighted the importance of appropriate institutions to enhance the environmental quality through planning, management and control of environmental resources.

Furthermore, education, science and technology should support development and be applied to the identification, avoidance and control of environmental risks and to finding of solutions to environmental problems. Moreover, the principle stating state sovereignty in the right to exploit national resources, based on national environmental policies and taking into account the

⁷ Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED 1987).

responsibility to avoid external environmental damage, was included in this declaration. The principles also comprised the obligation of states to ensure that international organizations promote the protection and improvement of the environment through coordinated, efficient and dynamic measures (UN 1972).

The concept of sustainable development was defined by the World Commission on Environment and Development (WCED 1987) as a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development and institutional change are all in harmony and enhance both current and future potentials to meet human needs and aspirations. Furthermore, the Commission produced a proposal for the legal principles for environmental protection and sustainable development (Table 16).

Table 16. The legal principles for environmental protection and sustainable development.

1. Fundamental human rights (all human beings have the fundamental right to an environment adequate for their health and well-being).
2. Inter-generational equity (states shall conserve and use the environmental and natural resources for the benefit of present and future generations).
3. Conservation and sustainable use (states shall maintain ecosystems and ecological processes essential for the functioning of the biosphere, shall preserve biological diversity and shall observe the principles of optimum sustainable yield in the use of living natural resources and ecosystems).
4. Environmental standards and monitoring (states shall establish adequate environmental protection standards and monitor changes in and publish relevant data on environmental quality and resource use).
5. Prior environmental assessments (states shall make or require prior environmental assessments of proposed activities which may significantly affect the environment or use of natural resources).
6. Prior notification, access and due process (states shall inform in a timely manner all persons likely to be significantly affected by a planned activity and to grant them equal access and due process in administrative and judicial proceedings).
7. Sustainable development and assistance (states shall ensure that conservation is treated as an integral part of the planning and implementation of development activities and provide assistance to other states in support of environmental protection and sustainable development).
8. General obligation to cooperate (states shall cooperate in good faith with other states in implementing the preceding rights and obligations).

Source: Adapted from WCED 1987.

Sustainable development is a new and innovative concept which aims at integrating environmental, economic and social considerations within an overall development process (WCED 1987). The key elements of the sustainable development process include policy and institutional development and reforms, as well as institutional and legal changes at the international, regional and national levels, with an emphasis on informed decision-making. In addition, sustainable development involves broad-based participation of all sectors and stakeholders as well as the establishment of clear goals and incentives and enforcement of appropriate laws, regulations and standards jointly with the assessment of sustainability of planned development projects and the application of broad environmental impact assessments (e.g. policies, programmes, products and projects).

Moreover, sustainable development priorities include the strengthening and extending of existing international conventions and agreements as well as the negotiation of new global and regional conventions or arrangements to promote cooperation and coordination in the field of environment and development (WCED 1987). The principles of the Rio Declaration (UN 1992a) outlined the following key elements of sustainable development:

- Balancing of current and future development and environment-related needs.
- Integration of the development process and environmental protection.
- International cooperation for poverty reduction.
- Common but differentiated responsibilities of states and special needs of developing countries.
- Promotion of sustainable patterns of production and consumption.
- Exchange of scientific and technological knowledge.
- Development, adaptation and transfer of technologies (including new and innovative ones).
- Public awareness and participation in decision-making processes.
- Effective environmental legislation and environmental standards and management.
- A supportive and open international economic system (including a conducive trade policy).
- Liability and compensation for the effects of environmental damage caused by activities within state jurisdiction or control.
- Cooperation to prevent cross-border environmental degradation.
- The precautionary approach and a polluter-pays principle.
- Environmental impact assessment (for activities that are likely to have a significant adverse impact on the environment).

Sustainable development is a long-term process which requires comprehensive, cross-sectoral and consistent approaches at all levels as well as case-specific and locally-adapted actions. In addition, sustainable development is widely used and accepted as a global development framework that includes the creation of a system of international environmental governance (CGG 1995). International and national sustainable development indicators can support sustainable development and informed decision-making at all levels for appropriate sustainable development policies (Agenda 21 1992i). National decision-making processes and development assessments can apply sustainable development indicators such as land-use change (including land degradation), desertification, land areas covered by forests, areas of forests under SFM, and the information on forest management practices (CSD 2007).

The United Nations Conference on Environment and Development (UNCED) aimed at establishing a new global partnership with broader cooperation and promotion of international agreements. The Rio Declaration on Environment and Development (UN 1992a) established sustainable development as the leading global development goal and defined its key principles: 1) the right to development, 2) integration of environment and development issues, 3) international cooperation, 4) special needs of developing countries, 5) common and differentiated responsibilities of states, 6) environmental impact assessment, 7) sustainable production and consumption patterns, 8) the polluter-pays principle and 9) a precautionary approach. The declaration included the following relevant principles (UN 1992a):

- *States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities*

*within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction*⁸.

- *The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations*⁹.
- *In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it*¹⁰.
- *All States and all people shall cooperate in the essential task of eradicating poverty as an indispensable requirement for sustainable development, in order to decrease the disparities in standards of living and better meet the needs of the majority of the people of the world*¹¹.
- *The special situation and needs of developing countries, particularly the least developed and those most environmentally vulnerable, shall be given special priority. International actions in the field of environment and development should also address the interests and needs of all countries*¹².
- *Indigenous people and their communities and other local communities have a vital role in environmental management and development because of their knowledge and traditional practices. States should recognize and duly support their identity, culture and interests and enable their effective participation in the achievement of sustainable development*¹³.

Agenda 21 was one of the key instruments produced within the UNCED and it was a UN action programme for the implementation of the global partnership for sustainable development. This programme promoted broad public participation and involvement of all stakeholders in development actions. The basic elements also included the aim to provide new and additional financial resources to developing countries. This action programme has been very significant for the advancement of various global and national sustainable development efforts.

The new global partnership highlighted an international commitment to sustainable development with recognition of the need for both an international and a national enabling environment to promote sustainable development in developed and developing countries. The programme promoted sustainable development through trade focusing on mutually supportive international trade and environmental policies (Agenda 21 1992a). Moreover, the aims included integration of the environment and development at all levels of decision-making for an effective governance (e.g. policy and legal) framework for sustainable development, taking into account the local social values and infrastructures as well as coherent policies, plans and management practices and market-based instruments (Agenda 21 1992b).

The action programme promoted sustainable and integrated land resources management taking into account institutional development and the rights of indigenous people and local communities (Agenda 21 1992c). In addition, the aims included the strengthening of the role of indigenous people and their communities in the international and national implementation of sustainable development with the following specific objectives (Agenda 21 1992d):

- *Recognition of their values, traditional knowledge and resource management practices with a view to promoting environmentally sound and sustainable development*¹⁴.

⁸ Principle 2.

⁹ Principle 3.

¹⁰ Principle 4.

¹¹ Principle 5.

¹² Principle 6.

¹³ Principle 22.

¹⁴ Paragraph 26.3a, Chapter 26, Section III.

- *Enhancement of capacity-building for indigenous communities, based on the adaptation and exchange of traditional experience, knowledge and resource-management practices, to ensure their sustainable development*¹⁵.
- *Establishment, where appropriate, of arrangements to strengthen the active participation of indigenous people and their communities in the national formulation of policies, laws and programmes relating to resource management and other development processes that may affect them, and their initiation of proposals for such policies and programmes*¹⁶.
- *Involvement of indigenous people and their communities at the national and local levels in resource management and conservation strategies and other relevant programmes established to support and review sustainable development strategies*¹⁷.

Agenda 21 recognized that scientific and technological information as well as access to and transfer of environmentally sound technology are essential requirements for sustainable development (Agenda 21 1992e). Moreover, the programme contributed to the development of science for sustainable development for instance to support informed decision-making and with a special focus on developing countries. This action area also promoted related capacity and capability building (Agenda 21 1992f).

In addition, the development priorities within this programme comprised the promotion of education, training and public awareness for sustainable development with a focus on strengthening of national capacity for scientific education and training and for the application of environmentally sound, socially acceptable and appropriate know-how and technology. A local responsibility and control over awareness building activities was emphasized, in line with the principle of devolving the authority, accountability and resources to the most appropriate level (Agenda 21 1992g). Agenda 21 also comprised the following elements that need to be taken into account in the development of international law (Agenda 21 1992h):

- *The further development of international law on sustainable development, giving special attention to the delicate balance between environmental and developmental concerns*¹⁸.
- *The need to clarify and strengthen the relationship between existing international instruments or agreements in the field of environment and relevant social and economic agreements or instruments, taking into account the special needs of developing countries*¹⁹.

The United Nations Nairobi Declaration (UN 1997) on the future role of the United Nations Environment Programme (UNEP) stressed the need for further development of an international environmental law that aims at sustainable development with coherent interlinkages among the existing international environmental conventions. Moreover, this declaration emphasized the need to promote the implementation of internationally agreed norms and policies and to support and monitor compliance with international agreements and environmental principles. Cooperative action to address emerging environmental challenges and contribution to governmental and other institution building were also among the declared new roles of UNEP (UN 1997).

The UN Millennium Declaration (UN 2000a) reaffirmed the support for the principles of sustainable development and contributed to a statement on fundamental values that are essential to international relations. These values comprised for instance democratic and participatory governance, sustainable management of natural resources and all living species in accordance with

¹⁵ Paragraph 26.3a, Chapter 26, Section III.

¹⁶ Paragraph 26.3b, Chapter 26, Section III.

¹⁷ Paragraph 26.3c, Chapter 26, Section III.

¹⁸ Paragraph 39.1a, Chapter 39, Section IV.

¹⁹ Paragraph 39.1b, Chapter 39, Section IV.

sustainable development. Moreover, they comprised a shared responsibility for nations to multilaterally manage global economic and social development as well as to address the threats to international peace and security. The declaration comprised the following statements (UN 2000a).

- *We reaffirm our support for the principles of sustainable development, including those set out in Agenda 21, agreed upon at the United Nations Conference on Environment and Development*²⁰.
- *We resolve therefore to adopt in all our environmental actions a new ethic of conservation and stewardship and, as first steps, we resolve: to intensify our collective efforts for the management, conservation and sustainable development of all types of forests*²¹.
- *To intensify cooperation to reduce the number and effects of natural and man-made disasters*²².

The declaration focused on human rights, democracy and good governance and emphasized the rule of law. Furthermore, it especially recognized the importance of good governance at the international and national level for the achievement of development goals (e.g. poverty eradication), in addition to transparent financial and trading systems. The declaration comprised the following statements on meeting the special needs in Africa (UN 2000a):

- *To give full support to the political and institutional structures of emerging democracies in Africa*²³.
- *To take special measures to address the challenges of poverty eradication and sustainable development in Africa*²⁴.

The UN Johannesburg Declaration on Sustainable Development (UN 2002a) of the World Summit on Sustainable Development (WSSD) highlighted the global commitment to sustainable development encompassing the advancement and strengthening of its interdependent and mutually reinforcing economic, social and environmental dimensions at local, national, regional and global levels. Essential sustainable development priorities covered the management and protection of natural resources. Moreover, the declaration recognized that sustainable development requires long-term approaches and improved governance as well as broad-based participation in policy formulation, decision-making and implementation at all levels. The declaration contained the following statements (UN 2002a):

- *We recognize that poverty eradication, changing consumption and production patterns, and protecting and managing the natural resource base for economic and social development are overarching objectives of, and essential requirements for sustainable development*²⁵.
- *We reaffirm the vital role of the indigenous peoples in sustainable development*²⁶.
- *To achieve our goals of sustainable development, we need more effective, democratic and accountable international and multilateral institutions*²⁷.

The WSSD plan of implementation (UN 2002b) emphasized the importance of the integration of all components of sustainable development and good governance at the international and country levels, including sound policies. The essential development priorities comprised integrated and sustainable management of natural resources with a focus on transparent national regulatory framework,

²⁰ Paragraph 22, Chapter IV.

²¹ Paragraph 23, Chapter IV.

²² Paragraph 23, Chapter IV.

²³ Paragraph 28, Chapter VII.

²⁴ Paragraph 28, Chapter VII.

²⁵ Paragraph 11, p. 2.

²⁶ Paragraph 25, p. 3.

²⁷ Paragraph 31, p. 4.

involvement of all stakeholders and improved accountability of public institutions and private companies as well as on public-private partnerships that take into account the local conditions and needs. The plan comprised the following statements on forests (UN 2002b):

- *Sustainable forest management of both natural and planted forests and for timber and non-timber products is essential to achieving sustainable development as well as a critical means to eradicate poverty, significantly reduce deforestation, halt the loss of forest biodiversity and land and resource degradation*²⁸.
- *The achievement of sustainable forest management, nationally and globally, including through partnerships among interested Governments and stakeholders, including the private sector, indigenous and local communities and non-governmental organizations, is an essential goal of sustainable development*²⁹.

Development priorities related to forests included action on forest law enforcement and the illegal international trade in forest products. The plan recognized that the implementation of SFM can be supported by forest law enforcement and governance at all levels as well as by capacity building and appropriate technology. Moreover, indigenous and community-based forest management systems need to be recognized and supported by full and effective participation of the local people. In addition, integrated land and resource management can contribute to SFM. The plan contained the following statements on the necessary actions at all levels to achieve sustainable development in Africa (UN 2002b):

- *Create an enabling environment at the regional, subregional, national and local levels in order to achieve sustained economic growth and sustainable development and support African efforts for peace, stability and security, the resolution and prevention of conflicts, democracy, good governance, respect for human rights and fundamental freedoms, including the right to development and gender equality*³⁰.
- *Provide financial and technical support for afforestation and reforestation in Africa and to build capacity for sustainable forest management, including combating deforestation and measures to improve the policy and legal framework of the forest sector*³¹.

The UN Millennium Development Goals (MDGs) are the main internationally agreed development priorities at all levels and they include ensuring environmental sustainability, development of a global partnership for development, eradication of extreme poverty and achievement of universal primary education. The goal related to environmental sustainability aims at integration of the principles of sustainable development into country policies and programmes and at reversing the decline in environmental resources such as forests (UNDP 2010).

Strategies and practical measures to achieve these goals require a commitment to good governance and related capacity building as well as strengthening the rule of law through legal institutions, administration and civil services. Moreover, decision-making processes need to be transparent, participatory and accountable. Governance has many dimensions and development strategies should focus on all (public, civil and private) sectors. Application of governance components and indicators can assist in various development activities (UN 2009).

Urgent implementation of international political and legal commitments to promote sustainable development is important and includes the application of the principle of common but differentiated responsibility (UN 2000b). Moreover, major environmental challenges such as the continuous

²⁸ Paragraph 45, Chapter IV, p. 28.

²⁹ Paragraph 45, Chapter IV, p. 28.

³⁰ Paragraph 62a, Chapter VIII, p. 36.

³¹ Paragraph 62n, Chapter VIII, p. 37.

environmental degradation can be addressed through the evolving framework of international environmental law and the development of national laws that ensure improved environmental liability, compliance and enforcement. Environmental considerations must be integrated into decision-making, particularly into the promotion of international and national environmental governance and the rule of law with broad participation and access to relevant information.

Trade and environmental issues need to be integrated in line with sustainable development. Private sector development especially in the field of decision-making on investment and technology necessitates an increased focus on environmental performance and accountability as well as on precautionary approaches, the polluter-pays principle and innovative development of cleaner and resource-efficient technologies to support life cycle economy. Achievement of these goals requires the creation of enabling international and national environments (UN 2000b).

4.2.2 Sustainable development law

The sustainable development law is a part of the present theoretical framework because SFM and good forest governance are major elements within this legal framework for sustainable development, including all aspects of sustainability. Moreover, the sustainable development law belongs to the overall framework of international law (which is presented in section 4.5); it provides a legal foundation for sustainable management practices and related good governance.

The ILA (2002) stated that sustainable development is a widely accepted global objective involving comprehensive and integrated approaches to economic, social and political processes with an aim towards sustainable use of natural resources and the protection of the environment, taking into account the needs and interests of future generations. Sustainable development and environmental protection require a legal basis with an emphasis on integrative approaches (Experts Group on Environmental Law 1986). In addition, sustainable development is part of new efforts to integrate environmental, economic and social considerations into a new development paradigm characterized by a dynamic process, normative aspects and steering of change (Basse 1997; Dresner 2002; Baker 2006). Sustainable development is the main goal and guiding norm of international environment and development policy for the major international institutions (Lang 1995; Lafferty and Langhelle 1999; Elliot 2006).

The sustainable development law has emerged as a new branch of international law with its multiple sources and instruments. The international law on sustainable development is evolving rapidly and integrated principles and practices of sustainable development law are emerging in many areas (Segger and Khalfan 2006). The sustainable development law as an emerging area of international law has the same sources as the general international law and encompasses legal principles and instruments at the intersection of environmental, social and economic laws. The principles of a sustainable development law have a normative character in international law and they generate obligations or rights for states and guide the international law and policy towards sustainable development and play a role in the interpretation or application of the international law. The integration principle of sustainable development has a special role within the institutions and normative processes of international law. Soft law is often created by parties to an international agreement as a part of its implementation and its instruments can constitute evidence of emerging customary international law and act as tools to interpret and define treaties and custom (Sands 1995; Ebbesson 1996; Bugge 1997; Paradell-Trius 2000; Sands 2003; Segger and Khalfan 2006).

International law needs to be further developed towards more comprehensive approaches that ensure the integration of social, economic, financial, technological, cultural and environmental

objectives and activities and the balancing of developmental and environmental concerns. The interpretation and application of the interrelated sustainable development principles (Table 17) should take place in the context of other principles (Bell and McGillivray 2006; ILA 2002). Sustainable development is associated with many normative principles that guide international law and environmental management practices (Baker 2006). Management and protection of natural resources for the promotion of sustainable development is a fundamental priority, and the international sustainable development law approach integrates economic, social and environmental dynamics and laws (Baker 2006; Segger et al. 2006).

The sovereignty of states over their natural resources in line with the international law is restricted by their responsibility not to cause irreparable damage to the territories of other states (Segger and Khalfan 2006). Moreover, the sovereign right of states to manage their own natural resources in line with their environmental and developmental policies includes an obligation to manage those natural resources sustainably. This refers to rational management and to taking into account the needs of future generations in determining the rate of the use of natural resources (ILA 2002).

A sustainable management approach could achieve the obligations implied by this principle by applying standards to govern the use of specific natural resources (Segger and Khalfan 2006). Sustainable use as a normative principle can be defined within a specific international regime (e.g. the international forest regime) and in relation to the practice of states, international organisations and lending agencies. Moreover, regulatory regimes and principles have implications for the sustainable utilisation and conservation of natural resources, especially in the context of the evolution of the international law (Birnie and Boyle 2002).

Table 17. The main principles of sustainable development law.

- The sustainable use of natural resources principle.
- The principle of inter-generational and intra-generational equity.
- The principle of common but differentiated responsibilities.
- The precautionary principle.
- The principle of preventive action.
- The principle of good governance.
- The principle of public participation.
- The principle of access to information and justice.
- The principle of integration.
- The co-operation and partnership principle.
- The consistency principle.
- The right to development.
- The polluter-pays principle.

Sources: Experts Group on Environmental Law 1986; Sands 1995; Ebbesson 1996; Burger 2000; Birnie and Boyle 2002; FAO 2002; ILA 2002; Sands 2003; Baker 2006; Birnie et al. 2009.

Good governance is an essential element of sustainable development law and of all related processes and instruments. The promotion of sustainable development involves international governance regimes and new governance practices. Furthermore, sustainable development and related governance arrangements imply major institutional reforms and changes in overall organizational arrangements encompassing multiple levels and new instruments. Sustainable development has become the guiding principle of international environmental governance and the UN has the leading role in the development of global environmental governance (Baker 2006).

The progress of international law on sustainable development involves the establishment of good governance with appropriate decision and policy-making institutions, comprehensive approaches, participation in decision-making and co-operation at all levels (Hossain 1995; Reid 1995). The UN principles of good governance include many of the principles of sustainable development as well as general principles such as the rule of law, transparency and accountability, effectiveness and efficiency, subsidiarity (actions should be taken at the appropriate level of government), participation, responsiveness to the needs of stakeholders, and gender equity (Baker 2006).

Sustainable development implies a multilevel approach with integrated, inter-sectoral, interdisciplinary, coordinated and consistent approaches as well as governance at all levels taking into account the integration principle (ILA 2002; Rao 2000). The promotion of sustainable development and the principles of good governance require dynamic and constructive approaches such as the application of emerging and intertwined policy and legal principles as well as the process of institutional change (Ginther and De Waart 1995).

Moreover, good governance in the context of sustainable development implies practices such as the rule of law, democratic and transparent decision-making procedures, participation, corporate social responsibility, socially responsible investments, financial accountability, and public procurement based on codes of best practice. Decision-making processes for sustainable development should always apply the precautionary approach to risk management with appropriate precautionary measures. Sustainable natural resources management involves planning based on clear criteria and well-defined goals as well as environmental impact assessments and accountability for any harm (ILA 2002).

Sustainable development requires good laws and functioning legal institutions aiming at legal reform to support the growing role of environmental awareness, globalisation, regionalisation, good governance, privatisation and devolution, and decentralisation. In addition, sustainable development is increasingly incorporated into legislation and it is an essential element in modern forest and natural resources laws. New forestry legislation promotes integration of sustainability principles into forest management (particularly through the use of management planning tools) and has moved towards a more balanced and integrated approach to forest management; it also complies with the international obligations derived from conventions and agreements (FAO 2002).

4.2.3 Sustainability science

Sustainability science is an obvious and essential part of the present theoretical framework because a study on SFM is about research on one branch of sustainability within the overall context of sustainable development. Moreover, good governance, such as good forest governance, is a part of this scientific framework for sustainability. Sustainability science as a new academic discipline has become an important field of scientific research and it provides broad and holistic approaches and a framework for addressing sustainability. In general, sustainability science can meet various requirements such as those of government, industry and academia. Governance, management and

related decision-making can be supported by sustainability science as well as by sustainability assessments and measurement.

Furthermore, sustainability science promotes integrated and multidisciplinary approaches as well as holistic problem solving based on the application of a range of scientific disciplines. Typical features include addressing a broad global or specific local development problem starting from the problem itself and its characteristics. The case-specific fields, solutions and methods are determined only after a comprehensive assessment of the problem at hand. The overall research approach of sustainability science includes the construction of an appropriate framework and exploration of information and data from many sources. The sustainability approach involves an integrated and multidisciplinary treatment of many levels, scales and contexts as well as of their dynamic changes.

Sustainability science resembles sustainable development because it is an evolving and dynamic field of study which is very much dependent on the prevailing context. In addition, it is characterized by the aim to improve our common understanding about the dynamic relationship and complex interconnections among natural and man-made systems. The results of and progress made within this field of study can advance the design, assessment and implementation of sustainable management practices such as SFM.

Science has a significant role in supporting informed government decision-making. Important global issues that should be addressed by science include the identification and assessment of major global and regional threats and risks of irreversible damage to natural ecosystems (e.g. deforestation, desertification and climate change). Moreover, science should provide recommendations about how to deal with these threats and risks as well as support to governments and intergovernmental organizations in the implementation of policies to address these threats and risks (WCED 1987).

Science for sustainable development aims at supporting proper management of the environment and development for the benefit of current and future generations. Issues include provision of information to promote improved formulation and selection of policies within the decision-making processes as well as promotion of long-term assessments and capacity development in all countries. Moreover, scientific knowledge should be applied to the definition and support of the goals of sustainable development. Sustainable development requires long-term perspectives as well as integration of both local and regional effects of global change and best scientific and traditional knowledge within development processes (Agenda 21 1992k).

The emerging new discipline of sustainability science has its origins in the concept of sustainable development proposed by the WCED (1987) although sustainability is considered to be a much more multifaceted concept in this context (Komiyama and Takeuchi 2006). This new field of science aims at understanding the fundamental character of interactions between nature and society and at focusing on the capacity of society to guide those interactions towards sustainable development, with incentive structures such as markets, rules, norms and scientific information (Kates et al. 2001). Sustainability is recognized as a key issue, encompassing the participation of all stakeholders (e.g. the industry, government and the academic community). Moreover, the concept of sustainability science as a discipline points the way toward a sustainable society that addresses the necessary social reforms, inter-generational equity and the different levels of the sustainability system: the global, social and human levels (Komiyama and Takeuchi 2006).

Sustainability science is connected with the political agenda for sustainable development and promotes the integration of research planning, monitoring, assessment and decision support into systems for adaptive management. Moreover, sustainability science research involves the invention,

extension and use of new methodological approaches and participatory procedures. Progress in sustainability science requires problem-driven and interdisciplinary research approaches that also address capacity-building and coherent planning systems (Kates et al. 2001). The key features of sustainability science are described as follows (Komiyama and Takeuchi 2006):

- Sustainability science 1) needs to adopt a comprehensive and holistic approach to identification of problems, issues and perspectives involving the sustainability of global, social and human systems, 2) can offer comprehensive and practical solutions for sustainability problems based on transdisciplinary approaches and cooperation among researchers, industry, governments and the general public and 3) needs to construct a framework within which various disciplines can provide C&I for sustainability (these can be integrated to form a new structure for knowledge, methods and issues), taking into account case-specific environmental and cultural conditions.
- Sustainability problems may derive from interactions between the three levels of the sustainability system.
- Sustainability science applies the principle of precautionary approach and recognizes the need for both global and local approaches to sustainability.

Long-term strategies for sustainable development have become a major global challenge that includes incorporation of strategic planning into decision-making as well as policies and institutional arrangements for the management of natural resources (Ascher 2006). Comprehensive approach as applied in policy sciences is an especially useful analytic tool for promoting sustainability, addressing problems and selecting policies. A comprehensive approach takes into account the overall context and promotes integrative, multidisciplinary and multimethod assessments (Ascher 2007).

4.3 Sustainable forest management

4.3.1 Introduction

Sustainable forest management is naturally a fundamental part of the theoretical framework of this study including good forest governance issues. A SFM framework provides an outline of the main background elements that underlie or are closely connected to studies in this field within the overall sustainable development framework. The Forest Principles (UN 1992b) included the following statement that links state sovereignty and sustainable development:

- *States have the sovereign and inalienable right to utilize, manage and develop their forests in accordance with their development needs and level of socio-economic development and on the basis of national policies consistent with sustainable development and legislation, including the conversion of such areas for other uses within the overall socio-economic development plan and based on rational land-use policies*³².

The Non-Legally Binding Instrument on All Types of Forests (NLBI) was adopted by the UN General Assembly in 2007 and it is the latest and most significant international instrument related to forests and SFM. It represents the strongest commitment to SFM at the global level. The following presents the intergovernmentally agreed definition of SFM as adopted by the UN General Assembly (UN 2007):

³² Principle 2(a), The Forest Principles.

Sustainable forest management as a dynamic and evolving concept aims to maintain and enhance the economic, social and environmental value of all types of forests, for the benefit of present and future generations³³.

The seven internationally recognized and agreed elements of SFM³⁴ comprise: 1) the extent of forest resources; 2) forest biological diversity; 3) forest health and vitality; 4) productive functions of forest resources; 5) protective functions of forest resources; 6) socio-economic functions of forests and 7) a legal, policy and institutional framework. The international understanding of and consensus on SFM has been developing through policy processes and conferences starting from the definition stated in the Forest Principles (UN 1992b), adopted at the UNCED in 1992:

Forest resources and forest lands should be sustainably managed to meet the social, economic, ecological, cultural and spiritual needs of present and future generations.

The Forest Principles defined these needs as forest products and services including wood and wood products, water, food, fodder, medicine, fuel, shelter, employment, recreation, habitats for wildlife, landscape diversity, carbon sinks and reservoirs and, other forest products and services. Moreover, the principles stressed the importance of addressing forest issues and management in a comprehensive and holistic way and within the overall context of sustainable development and environmental sustainability. In addition, the principles stated that appropriate measures should be taken to protect the forests against harmful effects of pollution, including air-borne pollution, fires, pests and diseases, to maintain their full multiple value (UN 1992b). The current understanding of SFM is very much based on development work and definition made by the Ministerial Conference for the Protection of Forests in Europe (MCPFE 1993):

Sustainable management means the stewardship and use of forests and forest lands in a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity, vitality and their potential to fulfil, now and in the future, relevant ecological, economic and social functions, at local, national, and global levels, and that does not cause damage to other ecosystems³⁵.

Chapter 11 of Agenda 21 related to combating deforestation was a part of a dynamic process which can be regarded as a new global partnership for sustainable development. The key elements of that chapter included the promotion of institutional capacity-building for, holistic approach to and the improvement and harmonization of policies and legislation for the management, conservation and sustainable development of forests (Agenda 21 1992j).

Since then the Food and Agriculture Organization of the United Nations (FAO) has adopted this definition, and many forest policy processes have further developed the definition of SFM (namely the MCPFE, IPF, IFF and UNFF). Moreover, many C&I processes have contributed to the definition of SFM, especially through identification of the key thematic elements. The C&I processes define and present the main elements of SFM and the key characteristics of the necessary conditions and fundamental processes. Moreover, C&I can be used as tools for the assessment and implementation of SFM.

SFM is the leading and the most fundamental global goal related to the management, conservation and sustainable development of all types of forests. In brief, the concept of SFM is the most important one the present study, and all the other concepts such as sustainable development and

³³ Paragraph 4, Chapter III, NLBI.

³⁴ Identified by existing C&I processes.

³⁵ Paragraph D, Resolution H1, MCPFE 1993.

good governance are linked to it in one way or another. The definition of SFM helps to understand why it is directly and indirectly linked to the broader overall framework for global and EU governance and to the international strive towards sustainable development. In general, the concept of SFM involves balancing of the growing demand for both forest products (wood and non-wood) and services with forest conservation and preservation (e.g. health of forest ecosystems and forest biodiversity).

Furthermore, multiple stakeholders and interest groups (e.g. international organizations, governments, the forest industry and local communities) are involved at all levels. Therefore, balancing of different demands and values is needed jointly with conflict resolution and reconciliation of diverse interests. SFM has replaced sustained yield (production of timber without reducing the natural capital base and its production capacity) as a cornerstone of forest management and policy, which means that forests are treated as a whole and as a part of a larger picture in an integrative manner including all goods (wood and non-wood) and services derived from them.

SFM can be interpreted in different ways depending on the context. It is a dynamic and evolving concept which is closely tied to overall sustainable development and its related goals and values (SFM is also a goal itself and the specific means to this end will often have to be interpreted on a case by case basis). Changing public values and trends affect what constitutes SFM at some specific point of time. Moreover, SFM involves broad economic, social and environmental goals which can be connected to various management frameworks or be transferred into best practices for operational forest management. Therefore, informed decision-making on SFM calls for comprehensive, cross-sectoral and consistent approaches.

SFM has been established within all major management, policy and legal frameworks at the international (e.g. the UN system), regional (e.g. the EU) and national levels. Moreover, SFM is clearly stated in multiple international instruments such as the multilateral environmental agreements (MEAs) and other legal instruments, policy statements of international institutions, and the strategies of financial institutions such as the World Bank (WB). Therefore, it can be stated that SFM is the most important concept in current forest management, governance, policy and law.

Global forest issues encompass close linkages to climate change challenges such as carbon balance and storage aspects as well as to biodiversity conservation, combating desertification and protection of water resources. The current global forest sector priorities highlighted by the World Forestry Congress (WFC 2009) cover sustainable management of all types of forests (for instance forest protection and restoration and biodiversity conservation) as well as the maintenance of high carbon stocks through reduced deforestation and forest degradation. Moreover, it is internationally recognized that SFM provides an effective framework for forest-based climate change mitigation and adaptation. This implies that comprehensive, integrated, cross-sectoral and consistent development approaches are needed at national and local levels. The key forest sector development priorities in line with the WFC 2009 outcomes and the aims of this study comprise:

- Improvement of forest governance.
- Enhancement of capacity building and financing.
- Combating deforestation and forest degradation through 1) improved forest governance, 2) inter-sectoral collaboration, 3) sustainable rural livelihoods and 4) economic incentives.
- Sustainably harvested forest products as renewable and low emission materials.
- Informed decision-making based on forest monitoring and assessments.
- Empowerment of forest dependent communities and indigenous peoples.

4.3.2 Previous studies

SFM is the leading global forest development framework and it has received considerable interest within forestry and related research fields. Various writings outline the main elements and inter-linkages of SFM and its implementation at multiple levels. SFM requires the development of consistent and adaptive political and legal frameworks at the international and European level and acknowledgement of the fundamental role of the sustainable development principle. Moreover, comprehensive, multilevel and diverse policies and legislation are needed jointly with integrated and coherent instruments that ensure broad partnerships and participation. Decision-making in SFM requires the integration of multiple stakeholders and more institutional arrangements for consensus building (Schmithüsen 2003a; 2003b).

The concept of SFM provides an overall policy direction and long-term goal for multipurpose forest management (FAO 1993). The requirements for SFM encompass policies that can be implemented and laws that can be enforced as well as institutions that are capable of meeting their responsibilities with integration of forestry and sustainable land-use and participation of local people in the decision-making processes (FAO 1994a). The key actions and policy changes to achieve sustainable and multipurpose management of natural forests and plantations and to promote rehabilitation of degraded lands comprise (FAO 1993):

- Development of forest policies that promote SFM in the broadest sense and reform of forestry legislation and regulations to provide a consistent and comprehensive framework for the long-term sustainability of forests and for the participation of forest-dependent people.
- Strengthening of forestry services and staff capabilities (by training and motivation of staff) to provide advice and support for the implementation of SFM programmes that are economically feasible, socially acceptable and environmentally sound.
- Promotion of collaboration, coordination and multidisciplinary approaches among institutions involved in all aspects of land use and provision of training to all involved in rural development with emphasis on the linkages between forest management and sustainable development.
- Harmonisation of regulations covering all forms of land use (especially forestry and agriculture) and the environment to ensure consistency in the move towards sustainability.
- Development of integrated and sustainable land-use systems and training/extension services to promote the maintenance or establishment of trees and woodlots within farmland as part of sustainable agricultural systems.

SFM and sustainability require understanding of the impacts of management decisions on multiple system components in addition to commitment to continuous improvement, intergenerational equity, adaptive management, changing institutions and future orientation (Adamowicz and Burton 2003). SFM involves addressing dynamic and changing management aspects and incorporates the three pillars of sustainable development: economic, environmental and socio-cultural sustainability (Wilkie 2003). Moreover, SFM is a globally recognized, dynamic, multidimensional and normative concept used to broadly define the long-term goals for forests and their utilization (Rametsteiner 2001).

Development priorities encompass the enhancement of forest governance, efficient application of the principles of SFM and integration of forestry with other sectors, institutional reforms and incorporation of traditional knowledge into policy-making processes (Mery et al. 2005a). The achievement of SFM practices requires institutional reform, evolution and innovation such as commitment to the values underlying SFM by all key stakeholders; major educational commitment

to SFM; new tenure arrangement; results-based regulation and increased application of scientific expertise and professional knowledge (Nelson et al. 2003).

In addition, forest-based sustainable development requires innovative inter-sectoral development, coordination, capacity-building and stakeholder involvement at all levels (Mery et al. 2005b). SFM as a management standard requires broad and cross-disciplinary information (Hickey et al. 2006) and should reflect the implications of a wider operating environment in forestry (Hickey et al. 2005). Moreover, SFM implies that forest resource managers must balance economic, social and environmental values associated with forest resources and monitor and collect information on environmental, economic and social impacts (Hickey and Innes 2005).

The wider operating environment of SFM includes the role of international stakeholders and the key functions of international standards as well as new regulatory approaches to forest management (Hickey 2004). SFM implies dynamic, integrative and multi-disciplinary approaches (De Montalembert 1995; Szaro et al. 2000). Sustainability requires effective legal, administrative and market-based institutions as well as management planning with codes for forest practice and rational allocation of property rights (Ferguson 1996).

4.3.3 SFM within forest policy framework

SFM is a major forest policy goal at all levels and therefore it should be defined also in the context of the forest policy process (cf. Figure 3) which is often used as a framework for addressing forest policies. The policy cycle framework can be applied to the development, implementation and improvement of forest policies and laws (Schmithüsen 2003b). This means that it can be applied to policies and laws for SFM. In addition, the policy process approach can be applied to policy assessment, and decisions about the future may require new legislation and policies or amendments to the existing policy and legal framework (Ripley 1995). The policy process includes the use of multiple decision-making criteria or standards and many sources of knowledge (O’Laughlin 2004). The characteristics of the policy cycle within the sustainable development and sustainability framework include (Nilsson 2004):

- Establishment or reform of policy instruments and institutions.
- Continuous and adaptive process with evaluations of policies based on the policy goals.
- Implementation of international agreements on C&I (modified to national, regional and local levels) and application of voluntary certification in line with the overall sustainable development framework.
- SFM at the field/local level.
- Establishment of transparent monitoring and impact assessment systems.
- Setting policy-relevant research priorities and adapting to changing conditions.

NFPs can be used as coordination and planning instruments for the achievement of the SFM goals with holistic and inter-sectoral approaches (Schmithüsen 2003b). Fredriksson (2003) recognised that forest policy is a statement about how forest resources should be managed, used and developed and noted that that forest policy includes both the long-term goals and the means to achieve these goals. Forest policy is part of a governance system and it aims to achieve sustainable development (O’Laughlin 2004).

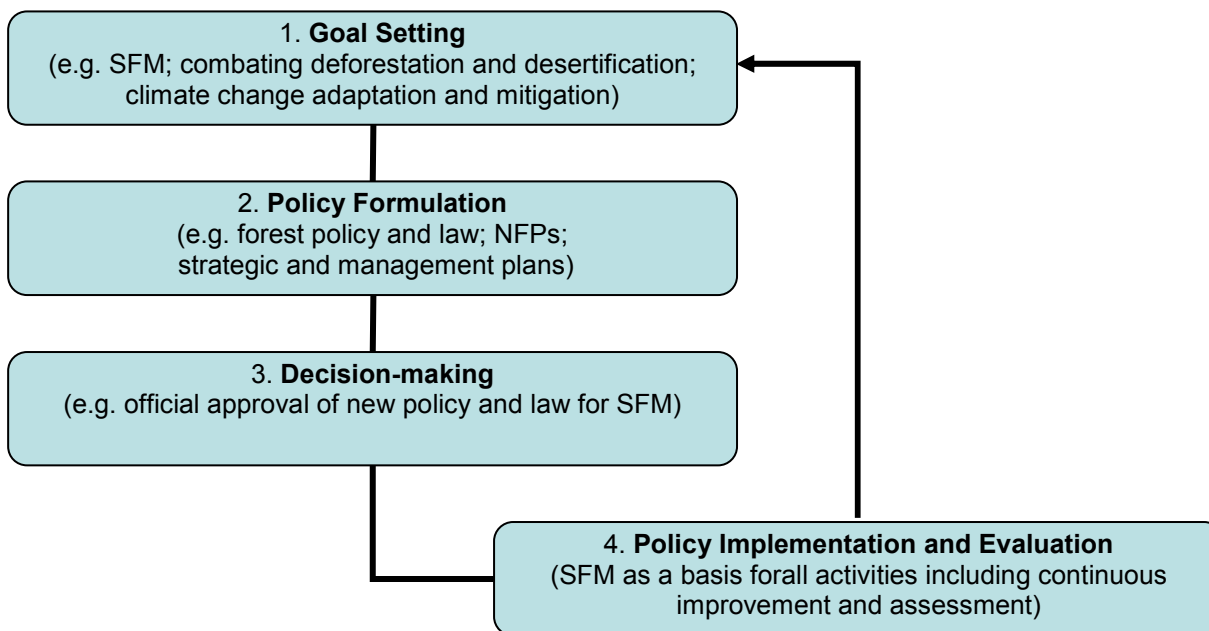


Figure 3. SFM within the forest policy cycle.

Moreover, forest policy implementation requires overall coordination within sustainable development frameworks, institutional regimes and forest sector programs and strategies (Nilsson 2004) as well as multiple and continuously evolving policy tools at all levels, encompassing legal, market-based, economic, financial, management, R&D, training, extension and information tools (Fredriksson 2003; Merlo and Paveri 1997). Integrated decision-making about sustainability policies and SFM is essential (McCool and Stankey 2001). The following criteria can be applied to the assessment of the effectiveness of policy and legal networks (Schmithüsen 2003b):

- Consistency (e.g. compatibility of objectives and instruments with international commitments, multilateral agreements, public policies addressing land use, economic development and environmental protection).
- Comprehensiveness (e.g. dimension of SFM).
- Subsidiarity (e.g. the significance of forest resources at many levels and for many stakeholders).
- Applicability (e.g. the whole policy framework and established responsibilities, tasks and forms of stakeholder participation in the regulation of forest uses and management practices).

4.3.4 C&I for SFM

SFM has been defined within the context of international C&I processes, and their role has been significant in providing both an overall framework and a practice-oriented approach. The long-term use of C&I for SFM is essential for the promotion of SFM and for the role of forests in sustainable development. The identified common thematic areas of SFM are based on the criteria of regional and international C&I processes (FAO 2004). The key issues for further development of C&I for SFM include improved communication and information management across all management levels and better stakeholder involvement, for instance the private sector, NGOs and local and indigenous people. The C&I for SFM should be incorporated into NFPs based on stakeholder participation. Moreover, better links are needed between C&I for SFM, international agreements and cooperation, certification, and forests assessments at all levels (FAO 2004).

The C&I for SFM have many applications and they serve as a framework for goals, strategic planning, communication and stakeholder relations as well as for monitoring SFM, NFPs and certification at all levels (FAO 2003a). The main development priorities comprise harmonization between the regional sets of C&I and coordination between regional processes as well as consideration of a global common core set of C&I for SFM. Moreover, improved cross-sectoral and institutional coordination and linking the C&I for SFM with the sustainable development indicators at international, national and local levels are all essential development issues. Capacity building for the implementation of C&I for SFM is essential especially in developing countries (FAO 2003b).

The use of C&I as a mechanism for defining SFM is widely accepted and this approach creates a framework that defines both the scope and the key elements of SFM (Brand 1997). The hierarchical framework for the development of consistent and coherent SFM standards at all levels includes the SFM goal and related principles, as well as the C&I for SFM (Lammerts van Bueren and Blom 1997). The ultimate goal of the C&I for SFM is to promote improved forest management practices in the longrun, taking into account the social, economic, environmental, cultural and spiritual needs of all stakeholders. In addition, C&I for SFM play an essential role within the sustainable development framework for forestry (Nilsson 2004). The C&I approach is a new tool that promotes a global definition of SFM and has a great potential to improve forest policy and management (Raison et al. 2001a; 2001b; 2001c). In essence, the goal of SFM requires the implementation of C&I for SFM (Siry et al. 2005).

In general, C&I for SFM are management tools which are designed to support the improvement of the quality of forest management as an integral part of sustainable development. The development and implementation of C&I for SFM is a dynamic and evolving process (ISCI 1996b). Moreover, C&I for SFM can assess and demonstrate progress towards SFM and they can be used in decision making to plan and implement sustainable development policies and measures at all levels and to report on progress towards sustainability. They can also assist in the development and assessment of international policy instruments, management practices, guidelines and legal arrangements encompassing issues related to international trade in forest products derived from sustainably managed forests. The criteria contain the main components of SFM and reflect the current objectives and expectations of society towards SFM (ISCI 1996a).

4.4 Global governance

4.4.1 Introduction to global governance

Global governance is one of the most important elements of the theoretical framework for this study since it provides the overall framework for good governance comprising good forest governance and relevant elements of SFM. Global governance is an emerging issue within the global sustainable development framework. Globalization and growing international cooperation have created the need to address issues and solve problems through global institutions in addition to and jointly with national and local systems. Global governance is relevant in almost all sectors of international activities.

Forests and their sustainable management are major international issues in many ways and carry various cross-sectoral interlinkages. Therefore, it is only logical that international approaches to forest governance and sustainable management have emerged due to various driving forces and pressures. Several authors have defined this concept and related ones such as the international regimes. Assessment of the international discourse suggests that a general agreement exists on the

following characteristics of global governance (Hempel 1996; Cable 1999; Keohane and Nye Jr. 2000; Alger 2001;; Clark 2001; McGrew 2001; Taylor and Curtis 2001; Nayyar and Court 2002; Held and McGrew 2003; Keohane 2003; Woods 2003; Karns and Mingst 2004; Kirton and Trebilcock 2004; Marks and Hooghe 2004; Rittberger and Zangl 2006; Speth and Haas 2006):

- Global governance includes 1) multilevel formal and informal governance (e.g. the UN and EU systems, international organizations, national governments, research institutions, private sector, NGOs and local communities), 2) development and implementation of international, national and local rules and laws (e.g. MEAs and soft law), 3) arrangements, cooperation and action based on agreed goals and shared problems (especially global), 4) international regimes (linked principles, norms, rules and decision-making structures for a given issue area and to govern a particular problem) and 5) networks of institutions and standards.

Global governance is a broad, dynamic and complex process (with formal institutions and regimes and informal arrangements) of interactive decision-making that is constantly evolving and responding to changing circumstances. International law, regimes and standards have a fundamental role in global governance and they should be supported by appropriate compliance and enforcement arrangements. The international community need to build a more effective system of global governance with an evolving system of international norms in line with sustainable development (CGG 1995). Furthermore, environmental governance includes conventions and comprehensive regimes (application of international norms and definition of rights and responsibilities) as well as framework conventions which establish general objectives and obligations. Development of effective governance, regimes and management involves the development of flexible and adaptive institutions in line with changing conditions and including agreed principles and consultation processes that govern the sustainable use of environmental resources (Greene 1996; 2001).

Governance is about integrated and sustainable management assigns responsibilities to all participants (Brady 2005). A successful design of global environmental governance involves the global, national and local levels (redistribution of some of the environmental authority of sovereign states to supranational entities and local communities). The international governance instruments include hard law (binding agreements and policies), soft law (non-binding codes of conduct and guidelines) and voluntary action plans (Hempel 1996). Moreover, the new institutions of governance and international regimes have a major impact on national level institutions and policymaking (Grindle 2000; Howlett and Ramesh 1995).

International regimes refer to international institutions for the governance of limited issue-areas; dynamic international regimes comprise standards for cooperation that indicate desirable long-term development within the particular issue area. Components of international regimes comprise principles, norms, rules and the decision-making procedures which form more or less coherent normative systems to govern and manage a specific issue area (Gehring 1994; Keohane 2005; Krasner 1982; Rittberger and Zangl 2006; Weiss et al. 1994). International regimes based on MEAs may function jointly with international law as international governance and management instruments (Ebbesson 1996).

4.4.2 Governance research

There are many interesting previous studies and writings about research approaches and specific methodologies in the context of governance, including forest governance, SFM and the overall sustainable development. The traditional role of academics in explaining things and identifying problems can be and should be broadened to addressing normative questions on the policies, political systems and governance structures that are necessary or desirable (Humphreys 2006). The

present study involves an analytical assessment of many governance levels and a focus on a new and emerging global normative framework for SFM. The main future research issues include the ability of new governance arenas to simultaneously address global forest problems and promote democratic governance and interaction between state and non-state authorities (Glück et al. 2005).

Forest policy and sustainable forestry require multidisciplinary policy analysis to support informed decision-making and to generate sustainable management options through synthesis of multiple perspectives (O’Laughlin 2004). Moreover, a problem-solving approach seeks to address problems without challenging realities such as dominant actors, relationships and ideologies and considers environmental problems to be mainly management issues to be addressed through more effective policies and strengthened environmental institutions (Humphreys 2006). A study of decision-making involves integration of normative (e.g. decision-making criteria), prescriptive and descriptive approaches within the overall context and its realities (Kleindorfer et al. 1993). The complexity of political processes and forestry issues in international, European and national policy development means that interdisciplinary research approaches are needed (Schmithüsen 2004a;b).

A study of multi-level and good governance involves a normative dimension as well as issue areas such as supranational organizations (e.g. the UN and the EU), the emergence of global norms (e.g. good governance) and transnational threats and risks (Welch and Kennedy-Pipe 2004). Analytical approaches to global governance may involve formal and informal as well as vertical or horizontal aspects with multiple actors such as intergovernmental organizations, governments, the general public, NGOs and transnational corporations (Rosenau 2003). A study of sustainable governance involves consideration of broad systems that incorporate interactions between governance institutions, complex natural systems and human stakeholders as well as of appropriate levels of decision-making. Moreover, innovative research approaches and integrated assessments are essential (Costanza et al. 1999). Held and McGrew (2003) recognized that an analytical approach to global governance encompasses the following aspects:

- Global, regional or transnational systems of authoritative rule-making and implementation as the main units of analysis.
- Focus on the evolving system of formal and informal political coordination across multiple levels among public authorities (states and intergovernmental organizations) and private agencies promoting common purposes or aiming to resolve collective problems.
- Diverse sources of rule-making, political authority and power.

Assessment of environmental governance comprises for instance the assessment of various approaches such as innovative institutional arrangements and international organizations and the identification and determination of governance principles (Biermann and Pattberg 2008; Esty and Ivanova 2002; Speth and Haas 2006). International environmental governance implies normative and institutional approaches. In addition, the main development priorities in this field comprise improved overall policy coordination and coherence (in addition to case-by-case approach) as well as the application of MEAs to promote coordination and linking of different international legal regimes and of common norms and rules at all governance levels (Kiss and Shelton 2004).

Additionally, multi-level governance often refers to an analytical model as well as to a normative concept. Approaches to the study of international organizations include an analytical approach which focuses on regimes. Regimes represent normative and regulative functions and are usually formed by a treaty which creates commitment among the participating signatory states (Bache and Flinders 2004). A study of international regimes involves analysis of norms and institutions (Gehring 1994) and studies on organizations often require cross-disciplinary analysis (Alvarez 2005).

Forest-related research must serve the society and its results should be used in policy processes and decision-making. Moreover, research approaches need to be relevant which means emphasis on future orientation and identification of emerging issues. Research on SFM involves bridging the gap between traditional knowledge and modern forest science (Guldin et al. 2005). Science can help policy makers to create a new vision and new possibilities for forest management. New knowledge can lead to new ideas among policy makers at local, regional, national and international levels. In addition, science can help to advance SFM by identifying critical factors that are needed to achieve the desired outcomes (Lewis Jr & Koch 1999).

Cross-sectoral approaches and an improved use of forest research to support decision-making are internationally recognized priorities. In addition, the global change implies substantive and procedural changes to traditional forest policies with a more international approach and a focus on SFM (Hellström 1999). There is a need for assessments of the following priority issues (Larson and Ribot 2007):

- The sustainability of internationally supported legal forest regimes in practice and from the point of view of local communities.
- Good governance and sustainable management systems including participation.
- The criterium of sustainability as the basis of forest laws.
- Incorporation of international agreements into forest legislation.

4.4.3 Forest governance

Forest governance provides the theoretical framework for addressing good forest governance and relevant aspects of SFM. Forest governance has become important element of forest sector development at all levels. Moreover, it is an example of the overall governance for sustainable development and sustainability. The design of appropriate governance systems and institutions is essential for the achievement of SFM. Forest governance is a broad, evolving and dynamic subject that covers formal and informal processes and institutions as well as related standards and principles at all levels. Moreover, the forest governance framework encompasses the international forest regime that is based on MEAs and other international instruments. In brief, the international regime is a system of governance and co-operation comprised of common standards and principles as well as of formal and informal conventions.

Addressing forest governance issues takes place within a broad, dynamic and evolving framework with multiple and complex processes and elements that change over time. Therefore, comprehensive, innovative and adaptive approaches are particularly useful in this context. International governance development has involved the establishment of institutions, organizations and regimes to promote effective governance. Governance encompasses decision-making, management and leadership processes and actors and activities at various levels as well as related formal and informal institutions. Decision-makers operate at local, national, regional and international levels, and today's issues increasingly result from interrelated and interdependent development that affects all or some of these levels. In sum, informed decision-making about forest governance and SFM requires understanding of the overall global governance framework and its main elements.

Furthermore, SFM requires management approaches that are based on good governance and are in line with the principles of sustainable development. Good forest governance creates an enabling environment and supporting conditions for successful implementation of SFM. In general, international development has a major influence on forest governance and SFM. Good forest governance and SFM both imply application of sustainable development and sustainability

principles to forest issues and to development within the forest sectors as a whole. These issues involve increasing state responsibilities and also more involvement, participation, rights and duties assigned to governance actors as well as a greater focus on shared efforts and responsibilities through broader public-private-community partnerships. In addition, governance and management for sustainability include a clear orientation towards comprehensive, cross/inter-sectoral, coherent, co-ordinated, holistic, integrative, precautionary, balanced and long-term approaches.

There are a lot of interesting previous writings and studies on forest governance or related issues at various levels. International forestry framework is characterized by changing needs such as the need for internal consistency and harmonisation of national forest policies as well as the application of the international principle of multiple use and crossdisciplinary approaches to address interrelated forest issues (Westoby 1987). A distinct international regime on forests has emerged based on hard, soft and private international law encompassing a number of regime principles promoting economic, environmental and social objectives (e.g. sustainable use of forests). Moreover, the international forest regime overlaps with other international environmental regimes and comprises a mix of hard and soft provisions. These provisions form a coherent and fragmented system of rights and obligations for states and other actors (Humphreys 2006).

The global governance level includes global forest policy processes such as the UNFF, and global forest governance encompasses holistic, comprehensive and multisectoral approaches (Jokela 2006). Moreover, global governance comprises management of global problems, formation and expansion of international regimes and management organizations and regulation of global problems including norms. The forest regime is composed of soft international law sources (non-legally binding forest principles and Chapter 11 of Agenda 21) and the principles and policies that have been consensually agreed upon within the IPF, the IFF and the UNFF processes (Jokela 2006). These principles have contributed to the normative framework of the global forest regime. The formation of the forest regime and global norms are based on international forest negotiations, and SFM is the most important global forest-related norm (Jokela 2006). Earlier writings have established that the international forest regime comprises international, regional and national levels and corresponding instruments and institutions (Maini and Schmithüsen 1991; Skala-Kuhmann 1996; Glück et al. 1997; Tarasofsky 1999a;b; Glück 2000; Humphreys 2001; Le Master et al. 2002; Le Master 2003; Schmithüsen 2003a;b; Bernstein and Cashore 2004; UNFF 2004b; Glück et al. 2005; Kant and Berry 2005b).

The UNFF has provided the main institutional focus for the emerging forests regime (Humphreys 2003). In addition, the UNFF is the worldwide platform which connects national governments, NGOs, the private sector and international organisations such as the WB, FAO, UNEP and UNDP (Schmithüsen 2003a). In general, international regimes consist of implicit and explicit principles, norms, rules and decision-making practices within a specific area of international relations and the overall international relations and policy framework. An international legal agreement may in the future provide a framework for a regime (Humphreys 1996). Moreover, the international regime refers to a management system and related tools (e.g. international organizations) to support global governance (Archer 2001). The normative framework of the forest regime is founded on three components (Humphreys 1999a; 2001a; Glück et al. 2005; Humphreys 2006):

- Hard international legal instruments (e.g. MEAs with a forest-related mandate such as ITTA, CITES, UNFCCC, CBD and UNCCD) and regional treaties such as the resolutions of the Ministerial Conferences on the Protection of Forests in Europe (in Helsinki 1992, in Lisbon 1998 and in Vienna 2003).
- Soft international law on forests (e.g. the Forest Principles; Chapter 11 of Agenda 21; the IPF/IFF proposals for action and the UNFF resolution).

- Consensually agreed principles and policies of international institutions (e.g. FAO Principles for NFPs) and private international law on forests.

The emerging international forest regime is formed within the global political context and it comprises international legal instruments such as conventions, agreements and declarations addressing forests and forestry directly or indirectly (Schmithüsen 2003a ; 2004a;b). SFM issues are included in many MEAs and these agreements are supported by less strongly binding documents at the multilateral level including statements of SFM principles and global forest forums (Virtanen and Palmujoki 2002). The main principles of the forest regime include for instance the sovereignty of states over their forest resources with the obligation to manage their forests so as not to cause damage to other states, forest protection, formulation and implementation of NFPs, participation by local communities and their partnership with other actors, TFRK of indigenous forest peoples as a part of SFM, C&I for SFM, and reporting (Humphreys 1999a).

SFM and the promotion of sustainable forest practices require appropriate forest governance, institutions and policies as well as informed decision-making and the establishment of clear ownership or property rights to forests and trees (FAO 1999). Good governance is a long-term and continuing process that is essential for the achievement of development goals; promotes sustainability (including the balancing of the economic, social, and environmental needs of present and future generations); the rule of law; effective policy implementation especially at the local level and capacity-building including codes of practice, standards as well as human and technical resources and customary institutions (FAO 2007b).

A global forest convention is and has been a major issue on the global development agenda for a long time. The arguments in favour of a global forest convention state that an umbrella convention would provide a more integrated, consistent and comprehensive treatment of forests in international law as well as strengthen the existing MEAs (Humphreys 2005; 2006). More binding global rules on forestry (e.g. the forest convention) could set minimum requirements for SFM to balance various global issues (Ekroos 2005).

An international arrangement on forests could provide a global framework for forest policy and a legal basis for addressing all forest-related issues in a holistic, balanced and comprehensive manner. In addition, it could promote the achievement of SFM based on the achievements of the intergovernmental forest policy processes and establish obligations to implement binding policies for SFM at the international, regional and national levels including reinforcement of existing forest-related obligations in existing internationally legally binding instruments and addressing fragmentation problems (UNFF 2004b). A global forest convention would comprise sustainable management and conservation as well as sustainable development of all types of forests including the development of NFPs for the implementation of the new understanding of SFM (Glück 2000).

Conventions and authoritative agreements form the necessary global framework for SFM and for the preparation and implementation of sustainable policies and programmes on natural resources (Kaarakka and Holmberg 1998). Global governance reforms including forest regimes are necessary and a global forest convention could promote SFM (VanderZwaag and Mackinlay 1996). An international forest instrument should include a consistent purpose, objectives and fundamental principles whereby it could provide a framework for the establishment of internationally recognised and consensus-based standards of sustainable forestry practices (Schmithüsen 1996). It should be noted that SFM is already defined in accordance with internationally developed and accepted norms for forest management practices (Maini and Schmithüsen 1991).

International instruments on forests should establish internationally accepted standards and norms for forest management and practices encompassing the development of forest institutions and revision of policies and legislation (Maini 1991; 1992; 1995; 1997). The basic principles of any international instrument for the conservation and development of forests should include the balancing of state sovereignty and the responsibility for SFM and sustainable development as well as the establishment of forest governance (FAO 1991).

A forest convention should deal with conservation and wise use of forests with a focus on effective coordination of policy, planning and implementation at all levels, including the specific issues combating deforestation and forest degradation as well as the customary land use by local communities (GLOBE 1992). In addition, a framework convention could define goals, principles and criteria for SFM in line with the principles of sustainable development at all levels while addressing the existing international agreements related to forest issues (Bass and Thomson 1997).

Sustainable development is the key principle in SFM and forest policies and laws (De Montalembert and Schmithüsen 1993; 1994; Schmithüsen 2004a,b). The principle of sustainable development is essential in international instruments and very useful for comprehensive forest management (Brunnée 1996). In addition, SFM is closely linked to sustainable development with MEAs including holistic and integrative approaches as well as appropriate institutional and decision-making systems (Kant and Berry 2005a).

Forest governance refers to how decisions related to forests and forest dependent people are made, who is responsible, and how power is used and how accountability is created. It encompasses decision-making processes and institutions at local, national, regional and global levels (CIFOR 2009). New governance arrangements including the forest regime should aim at integrating SFM and community-based natural resources management, with decentralized decision-making and institutional structures (Glück et al. 2005; Larson and Ribot 2007; Cronkleton et al. 2008; Larson and Soto 2008). Good forest governance and SFM are closely linked and both require informed decision-making among various actors such as the local communities, governments, international organizations, forest enterprises, training providers and extension workers, law enforcement authorities, donor organizations, multilateral development agencies, NGOs, financiers and investors. Key issues related to good forest governance and SFM include (CIFOR 2009):

- Capacity of local communities and forest dependent people to participate, exercise rights and represent their interest in international, national and local management decision-making and forest-related agenda setting processes.
- Strengthening or transformation of national and local policy frameworks, government policies, multi-stakeholder processes, institutions, capacities and practices to better promote SFM and equitable balancing of stakeholder needs and interests based on norms of good governance.
- Forest law enforcement and institutional capacity-building (including environmental justice and combating illegal forest activities).
- Linking global and local governance and decentralization.
- Forest finance and trade (including risk assessment and monitoring tools and mechanisms for financial institutions, regulatory agencies and civil society organizations to support SFM).
- Corporate responsibility (environmental and social), accountability and responsible investment options in the forest sector.

4.5 International law

4.5.1 Introduction

International law is an essential element of the present theoretical framework since it provides the ultimate setting for forest law at all levels including SFM and good forest governance aspects. Moreover, SFM and good forest governance are elements of international law in this particular field and they should be examined within this decision-making framework. International law provides a legal framework for all international affairs encompassing global and EU governance for SFM and international forest policy processes. Moreover, international law has many implications for regional, national and local levels. International law involves both public and private law and provides a framework for specific legal fields such as sustainable development law and international environmental law. The UN and its institutions form the essential basis of international law and international environmental law (Birnie and Boyle 2002; Brownlie 2003; Sands 2003).

In general, international law regulates the relationships between states and between them and international organizations. The international legal system is complex and dynamic and it includes a mix of inter-related hard and soft law instruments as well as multiple institutions that aim at promoting the rule of law (Shelton 2003). International law can be understood as a core international institution encompassing a set of norms, rules and practices created by states and other actors to promote multiple goals (Reaus-Smith 2001).

Moreover, the development of international law involves the interplay of various institutions and instruments such as international organizations, treaties, customary international law, conference diplomacy, international courts, non-binding declarations and resolutions as well as codification and progressive development processes. In addition, the development of rules of international law must be accompanied by effective means to ensure enforcement, compliance and dispute settlements (Birnie and Boyle 2002; Birnie et al. 2009). International legal rules are developed in a dynamic process and international rules can adapt, change and evolve in relation to changing conditions and international priorities (Joyner 2005). The UN agencies have developed and applied multiple normative instruments within the framework of international law and its various sources (Schachter 1997; Szasz 1997; USAID 1997).

International law includes many principles that are very important for good forest governance and SFM such as the principles of sustainable development law presented previously. The general principles for natural resources management are presented in Table 18, and the main principles of international environmental law are outlined in Table 19. All the principles of international law are inter-related (e.g. through the principles of sustainable development).

The development, establishment and application of international law is closely connected to global governance which is a broad, complex and dynamic process of interactive decision-making involving formal institutions, regimes and informal arrangements (Birnie and Boyle 2002; Birnie et al. 2009). Global, regional, national and local levels of governance are all connected and both global and regional governance have developed rapidly as indicated by the strong role of international organizations and the EU as well as by application of new standards and institutional reforms (Brownsword and Lewis 2006; Lewis 2006). International agreements and regional law (e.g. at the EU) establish environmental standards and create environmental law which provides a framework for decision-making (Bell and McGillivray 2006).

Table 18. The general principles for natural resources management

- The principle of guardianship and sovereignty (international and state responsibilities and rights about sustainable development and sustainable use of natural resources).
- The principle of the conservation and wise use of natural resources (e.g. forests).
- The principle of precaution and protection (applicable in every aspect of governance affecting natural resources or the environment).
- The principle of partnership and cooperation.
- The principle of responsibility and liability (e.g. consistency with international legal obligations in accordance with international law).

Source: GLOBE 1992.

International organizations such as the UN play a major role in the development and implementation of both international law and global governance by creating new policies, standards, codes of conduct and legal obligations (Amerasinghe 1996; Archer 2001; Emmerij et al. 2001; Reaus-Smith 2001; Klabbers 2002; Akande 2003; Brownlie 2003; Sands 2003; Amerasinghe 2005; Maduro 2006; Rittberger and Zangl 2006). International organizations create external rules such as conventions and other binding rules as well as recommendations and declarations which influence the development of both customary and codified law (Schermers and Blokker 1995).

Table 19. The main principles of international environmental law.

- The principle of sustainable development.
- The principle of sustainable use.
- The precautionary principle.
- The principle of preventive action.
- The principle of inter- and intragenerational equity.
- State sovereignty over natural resources and the responsibility not to cause transboundary environmental damage.
- The principle of co-operation.
- The polluter-pays principle.
- The principle of common but differentiated responsibility.

Sources: Birnie and Boyle 2002; Brownlie 2003; Sands 2003; Joyner 2005; Birnie et. al 2009.

Good governance may appear as a legal norm or principle of law within international law and development policy frameworks. Moreover, good governance implies sustainable development with its economic, social and environmental dimensions as well as includes elements such as rule of law; democracy; transparency; participation; accountability; respect for human rights; responsibility and reasonable decision-making (Seppänen 2003).

International trade law is an important field within international law and it is increasingly linked to other fields such as sustainable development, natural resources and environmental law. Forestry issues within the WTO framework include the promotion of SFM in line with sustainable development as well as addressing the issue of international trade of illegally harvested forest products (WTO 2004). The WTO Agreement and the Doha Ministerial Declaration support

sustainable development and environmental protection (WTO 2001; 1994a). Global resources need to be used in line with sustainable development while ensuring environmental protection and preservation (WTO 1994b). Development priorities include the promotion of technical assistance and capacity building especially in developing countries (WTO 2001).

Recently, the WTO has emphasised the importance of climate change mitigation and adaptation as a means to promote sustainable development globally, with a focus on measures such as large investments and significant changes to current policies, laws and actions as well as MEAs as frameworks and instruments. Moreover, the maintenance of forest cover (carbon sinks), reduced deforestation and land degradation, innovative technologies, technology transfer, voluntary standards as well as improved land and farm management practices are all promoted to address climate change mitigation and adaptation (WTO 2009).

International environmental law has major implications for forest law development, SFM and good forest governance at all levels in addition to general international law, sustainable development law and international trade law. Future development requires the establishment of more coherent frameworks for the co-ordination of existing rules and the development of new rules (Sands 2003). In addition, development priorities include improved assessment of environmental risks to support decision-making, reform of international institutions, rational and integrated treatment of different subject matters of international law and better compliance with and implementation and enforcement of international environmental law (Sands 1999). International and national legal frameworks require constant revision to respond to new challenges (Kiss and Shelton 2004).

4.5.2 Sources of international law

The framework of international law comprises many legal instruments and a broad basis of sources of law. Article 38 of the Statute of the International Court of Justice (UN 1946) provides that the Court decides in accordance with international law and applies the following sources of law:

- International conventions (whether general or particular) establishing rules expressly recognized by the contesting states.
- International custom as evidence of a general practice accepted as law.
- The general principles of law recognized by civilized nations.
- Judicial decisions and the teachings of the most highly qualified experts of the various nations as subsidiary means for the determination of rules of law (subject to the provision that decision of the Court has no binding force except between the parties and in respect of that particular case).

The first three sources are primary and formal and the fourth one is a supplementary, secondary and subsidiary source as well as a material source with a special degree of authority (Birnie and Boyle 2002; Brownlie 2003; Sands 2003; Thirlway 2003; Birnie et al. 2009). The formal sources produce applicable legally-binding rules whereas the material sources provide evidence of the existence of rules and of consensus among states concerning particular practices or rules (Brownlie 2003). The last source can be used for the determination and interpretation of legal rules and principles. All the legal rules and principles of international law can be found from the sources of law. Moreover, rules and principles of international law must derive from the recognized sources. The application of international law should always be based on the particular sources of international law (Thirlway 2003).

Treaties are the main sources of international law and the main instruments of international relations (Birnie and Boyle 2002; Sands 2003; UNFF 2004c) and they create binding legal obligations and

have a direct influence on the content of the law (Brownlie 2003; Fitzmaurice 2003). Moreover, treaties belong to the same primary category of sources and legal instruments as international conventions and agreements. In addition, preparatory documents and other sources of law can be used in interpretation of treaties. International custom is the second most important source of international law and it can be created through customary and general practice of states which is accepted as law (Skala-Kuhmann 1996; UNFF 2004c). The instruments which form a global forest-related legal framework include the Forest Principles, CBD, CCD, FCCC, the Kyoto Protocol and Chapter 11 of Agenda 21 (Schmithüsen 2003a). The implementation of forest-related MEAs should be linked with the results of the UN forest policy process such as the IPF, the IFF and the UNFF (Tarasofsky 2002).

Compliance with and implementation of MEAs is a major international development issue involving legal measures and innovative approaches (UNEP 2008). Moreover, MEAs can provide governance through environmental norms, participatory decision-making, transparency, accountability and conflict resolution including sustainability and trade issues. The implementation and enforcement of MEAs includes the following measures (UNEP 2008):

- Development of national frameworks and instruments (e.g. laws, regulations, plans, assessments and certification systems).
- National institutional capacity building and broad stakeholder consultation and involvement (including local communities).
- Financial and technical assistance including international cooperation such as action programmes and capacity-building in and technology transfer to developing countries.
- Design of national measures which 1) are in line with the relevant legal system and economic, social and cultural conditions, 2) take into account appropriate community requirements and 3) apply proper standards and are technically, economically and socially feasible.
- Training, education and awareness raising.

The sources of custom encompass policy statements, executive decisions and practices, state legislation, international and national judicial decisions, patterns in treaties in the same form and the practice of international organs as well as general principles of international law (Brownlie 2003). International custom is based on state practice and *opinio juris* which means conviction that conduct is motivated by a sense of legal obligation (Birnie and Boyle 2002; Sands 2003). The existence of international customary law can be established by two particular criteria which are complementary and compulsory for the creation of customary international law (UNFF 2004c): the state practice should be consistent with the rule of constant and uniform usage and this state practice exists because of the belief that such practice is required by law (*opinio juris*). The key elements which form the formal source of custom include duration; uniformity and consistency of the practice; generality of the practice and *opinio juris* (Brownlie 2003).

Determination of the content of international customary law encompasses examination of authoritative statements of states, multilateral and unilateral declarations, agreements, legislative acts, court decisions, actions in international organizations in specific issue areas as well as of state policies and conduct in international bodies, the UN and its programmes and special agencies and bodies established by MEAs and regional agreements. These international bodies produce instruments such as treaties, codes of practice, recommendations, guidelines, standards and declarations of principles (Birnie and Boyle 2002; Birnie et al. 2009).

Provisions of declarations may reflect customary international law or may later gain binding character as customary law (UNFF 2004c). The material sources such as conclusions of

international conferences of states have a direct influence on the content of the law and that these conclusions may be a form of multilateral treaty or constitute strong evidence of customary law in that specific case. Conclusions may also include a convention embodied in a final act expressed as a codification of existing principles (Brownlie 2003).

The third source of international law is the general principles of law which usually encompass both principles of the international legal system and those common to the major national legal systems of the world (UNFF 2004c). Soft law has an essential and growing role in international relations and in the development of international law as expressed in the dynamic interplay between soft and hard obligations (Shelton 2003). Treaties can reflect, codify or create general principles of law (Brownlie 2003; UNFF 2004c). Moreover, the general principles of international law may be deduced or generalised from treaties, customary law, established standards of behaviour for international society and drawing analogies with national law (Birnie and Boyle 2002; Brownlie 2003; Sands 2003). Legal principles can be applied to legal decision-making as well as to interpretation and application of rules at all levels of law (Winter 2006). The UN bodies and processes have produced specific emerging norms of international environmental law (e.g. legal principles) to support the normative framework for guiding interstate relations in the fields of the environment and natural resources (Joyner 1997; 2005).

The fourth source includes judicial decisions, for instance international tribunals, ICJ and the European Court of Justice (ECJ) and national courts, and teachings of experts. Decisions may be regarded as authoritative evidence of the state of the law and they may reflect judicial consistency (Brownlie 2003). Furthermore, teachings of experts may provide evidence of the state of the law in general and in specific cases. The ICJ has a broad jurisdiction over international affairs encompassing issues specified by the UN Charter and existing treaties and conventions as well as matters such as interpretation of treaties or assessment of breaches of international obligations (UN 1946).

Recently, the source base of international law has developed further and become broader. The development towards broader sources has produced a new element called international soft law which includes the following sources (Skala-Kuhmann 1996; Humphreys 2001; Birnie and Boyle 2002; Sands 2003; Shelton 2003; Joyner 2005; Birnie et al. 2009):

- Instruments and documents such as codes of best practice, decisions, declarations, directives, final acts, guidelines, manifestations, principles, recommendations, resolutions, standards, strategies, statements and some treaties of international, regional and national organizations, organs and conferences.
- Texts adopted by states and international institutions that contain norms or statements of obligation and texts which are political commitments that can lead to law such as a custom or treaty.

Framework or umbrella treaties often contain soft law instruments such as the declarations of principles (Birnie and Boyle 2002; Birnie et al. 2009). Soft law instruments are mainly created by international organizations and they can evolve into customary or treaty law. Furthermore, soft law can indicate and define modern and emerging trends (e.g. customs, state practice and obligations recognized by states); assist in the interpretation of treaties and other sources of law; fill in gaps in international legal instruments and codify existing law and deal with matters that reflect new concerns of the international community including standards, statements and other instruments (Ulfstein 1997; Chinkin 1998; Fitzmaurice 2003; Redgwell 2003; Shelton 2003; Karns and Mingst 2004; Cassese 2005; Bell and McGillivray 2006).

4.6 EU framework

4.6.1 EU governance

The EU governance framework is included in the present theoretical framework because it provides a framework for all the sustainable development efforts of the EU and its Member States, including Africa-EU cooperation and partnership as well as SFM and good forest governance issues. Moreover, this framework is inter-linked with the global governance framework and provides an outline of the main background elements of EU external development policies.

The EU has developed an advanced regional governance system and related institutions and instruments. This EU governance system is based on the global overall framework and development (international commitments and obligations), European integration, market and harmonization development (establishing treaties) and activities of both the EU institutions and the Member States. Moreover, the EU governance structure includes both the external and the internal affairs and in the present study the focus was on the external EU governance.

The EU policies aim at promoting sustainable forest development and SFM at the global level through many international institutions and their instruments. Moreover, the European Commission and the Member States are actively promoting sustainable management and protection of forests at the global level through international forest policy processes and the EU development co-operation policies. The EU forest policy instruments aim at supporting and developing the principles of SFM to maintain the environmental, social, cultural and economic functions of forests (EU 2003a;c). The external EU policies on sustainable development and management of forests include (EU 2003a):

- International forest policy processes and climate change.
- Development co-operation.
- International trade and external relations.

The European Commission highlights the importance of the principle of sustainability in the contexts of forests and broader development (EU 2003a). Therefore, the EU forest policies tend to be consistent with the principle of sustainability and take into account the important role of forests in overall sustainable development at all levels. Regionally, the EU provides a framework for implementation of SFM in line with the principles of subsidiarity and shared responsibility, but the Member States have the actual responsibility for forest policy development and implementation including NFPs. The EU strategies and policies on forestry and forest-based industries cover a wide range of goals at the global, regional, national and local levels (EU 2003c). The EU efforts to promote SFM include (EU 2003a):

- The global level priority to promote sustainable and equitable forest management as a means of 1) reducing poverty, 2) increasing the use of sustainably-produced wood and other forest products and 3) meeting the international obligations so as to improve the environment and to preserve biodiversity and natural resources.
- A leading role in supporting developing countries in their international forest-sector co-operation.
- The primary objective of EU development co-operation to reduce poverty through sustainable development and sustainable management of natural resources (e.g. forests).
- An active role in research and development.

Sustainable development is a fundamental and overarching objective of the EU and it is based on its charter. In addition, integration of sustainable development policy priorities is an essential priority. The principle of sustainability is included in the Treaty of Amsterdam (1997) as one of the

fundamental principles for EC policies and programmes and this implies that support and monitoring systems for sustainability must be developed to cover all policy areas. In addition, according to the Amsterdam Treaty sustainable development refers to the commitment to ensure a prudent use of natural resources and to take into account the environmental and economic interests of present and future generations.

Sustainable development within the EU framework involves governance systems and structures as well as coordinated action at all levels to ensure effective implementation of the principle of sustainability in all policy sectors encompassing both traditional governmental functions and non-governmental regulation as well as the involvement of all stakeholders in a multilevel system. Development priorities include institutional reforms and sustainability policies as well as integration guidelines and administrative structures for a multilevel legislative system (EU 2000). The EU Sustainable Development Strategy is based on the EU commitment to sustainable development made within the UNCED, and it includes the following objectives (EC 2007; EU 2006):

- Natural resources: improvement of the management and avoidance of the overexploitation of natural resources including the recognition of the value of ecosystem services.
- Global partnership: promotion of sustainable development actively world wide and ensuring that the internal and external EU policies are consistent with global sustainable development and its international commitments.
- Good governance: promotion of coherence between all European Union policies and coherence between local, regional, national and global actions to enhance their contribution to sustainable development.

Good governance is a major element of sustainable development and it can be defined both as a process of better policy-making and a process by which better policy decisions are implemented. Moreover, good governance is important in the context of assessments of sustainable development under the guiding principles of the EU Sustainable Development Strategy and cross-cutting issues such as policy integration and coherence as well as partner involvement and democracy (EC 2007).

The sustainable use of natural resources is an essential element of sustainable development within the EU framework. In addition, policy coherence and effectiveness are important for ensuring adequate conservation and management of natural resources. The EU promotes the contribution of trade and financing to sustainable global resource management including private investments to introduce new management practices and innovative technologies as part of corporate social responsibility. The EU sustainable development indicators are arranged under themes such as natural resources, good governance and global partnership (EC 2007):

- Indicators for forest management and health comprise: 1) forest increment and fellings and 2) forest trees damaged by defoliation (this indicator is going to be replaced by an indicator on deadwood which refers to biodiversity in forests).
- Indicators on global partnership, dealing with issues such as ODA, financing for sustainable development, globalization of trade and global resource management.
- Indicators on good governance that address issues such as policy coherence (including the vertical dimension which focuses on coherence between EU and national levels as well as the horizontal dimension which focuses on coherence between sectoral policies) and effectiveness, implementation of Community law, openness and public participation, and economic instruments (e.g. the polluter-pays principle, taxation and subsidies).

The EU as a regional organization is an important actor in global governance (Karns and Mingst 2004) as well as a governance system and framework for policy (e.g. foreign policy) and coherence

as well as for legally binding obligations (Smith 2005). The supranational level, encompassing international law and European legislation, comprises significant drivers of changes in the field of forest policy and law and possesses a key role for sustainable approaches (Ekroos 2005). In addition, good governance is a widely applied principle within EU development projects (Seppänen 2003).

The EU development integrates regional and global governance with a focus on sustainable development and close links to international processes (Archer 2001; Brownsword and Lewis 2006; Hogg 1999; Liberatore 1997). Governance and legal frameworks are inter-related and closely connected within the EU framework which gives an important role to arrangements such as integrated soft law approaches (Trubek et al. 2006). The EU has created strong and progressive environmental policies including the involvement of state and non-state actors at different levels of governance (Fairbrass and Jordan 2004).

Governance for SFM within the EU framework is in accordance with EU's international obligations and consistent with the UN instruments, MEAs, sustainable development and general international law and its principles. The EU supports a global legally binding instrument for the management, conservation and sustainable development of all types of forests. The EU governance for SFM is mainly implemented through international relations, trade and development co-operation.

Furthermore, the EU promotes sustainable development and sustainability strategies including SFM and related policies, laws and governance structures at all levels. The EU governance for SFM focuses on comprehensive and integrated approaches within the global framework. In brief, the EU aims at promoting the sustainable management of forest resources and forest lands to meet the social, economic, ecological, cultural and spiritual needs of present and future generations.

Global and European levels of action are intertwined and the global level has significantly influenced the forest policy development within the EU (Jokela 2006). The EU foreign policy for the environment comprises both global environmental negotiations and a global EU policy for the promotion of sustainable development (Jokela 2004). International legal instruments together with continental, regional and supranational processes constitute a multilevel policy and legal frameworks which have an impact on national and subnational level policies (Schmithüsen 2003b).

The European policy development for SFM takes place within a complex framework including global, regional and national levels as well as multiple cross-sectoral linkages (Tikkanen and Pajari 1998; Tikkanen et al. 2002). The development of consistent approaches and adaptive political and legal frameworks for SFM is a major challenge for international and European forest policies (Schmithüsen 2003a). International processes define SFM under the premises of sustainable development and this implies broadening of the sustainability concept and cross-sectoral approaches within forest management as well as major pressures to modernize forest laws (Weiss 2002).

The main drivers of forest law reforms in Europe comprise international agreements and the adoption of the principle of sustainable development in the forest sector (Bauer et al. 2004). Moreover, the principles of sustainable development and sustainability have become the main benchmark for judging new and revised forest laws (Schmithüsen 2004a;b). SFM requires appropriate policy and legal frameworks and is closely connected to the principle of sustainable development (Schmithüsen 2003a).

Pan-European conventions and declarations form the basis for SFM and for balancing regional economic, ecological and social goals. In addition, forest law should provide a framework for SFM

encompassing its economic, environmental, social and cultural aspects (Fredriksson 2003). The EU Forestry Strategy is based on the principles of SFM and the multifunctional role of forests. More comprehensive, integrative and cross-sectoral approaches are needed in line with the overall goal of sustainable development (Flies 2004; 2002). The strategy includes the main policy principles and guidelines for sustainable management practices in line with the global forest processes (Johnson and Corcelle 1997).

4.6.2 EU law

The EU law framework is also an important part of the present theoretical framework since it provides a legal framework for all EU efforts towards sustainable development. Moreover, this framework is inter-linked with and belongs to the overall framework of international law. This framework also outlines the main legal background elements behind all EU external policies such as the development policies and the Africa-EU partnership.

The EU has developed a comprehensive, cross-sectoral and consistent legal framework in line with the European integration development and harmonization and internal market policies. The EU legal framework is a regional legal order and system within the overall framework of international law. The sources and instruments of EU law include both the sources of international law and specific sources of EU law. In addition, EU law is a special legal system and order because it is binding on the Member States and thus has priority over national law. In general, the EU legal system is an exceptional example of innovative as well as dynamic and effective international law.

The EU law is based on international law and the constitution and it covers a broad range of legal fields such as trade, environment and SFM. The EU legal framework is an essential element of the global and regional governance framework. All the EU Member States are also UN Members and this means that they are already part of that international legal framework. Moreover, EU governance for SFM and other fields is based on both the EU law and policies within the overall international context. The EU has the most developed set of regional rules of international environmental law encompassing practical development and application of principles and rules which set standards, implement procedures and operate institutional arrangements.

The EC constitutes a new legal order of international law which applies within the Community and therefore within the Member States. This means that the EC law takes priority over conflicting national law (national law and its interpretation must be in line with the EC law) and that national courts and national administrations are obliged to ensure that EC law is fully applied; this also concerns the EC environmental law. The objectives in the treaty basis of the EU comprise sustainable development and protection of the environment (Krämer 2000). The EU is a regional integration organization and its objectives include the achievement of sustainable development, with integration of environmental requirements into other policies (Krämer 2006). The sources of EU law include (Shaw 2000):

- External sources (international agreements).
- Internal sources (the founding treaties, general principles of law and EU legislation).
- Primary sources (treaties and general principles of law).
- Secondary sources (EU legislation created by policy and law-making processes by the institutions including soft law).

The sources of EC law include customary international law and general principles of international law (Lenaerts et al. 2005). In addition, the sources comprise the decisions of the ECJ (Fairhurst 2006). The ECJ has recognized that international agreements to which the EC is a party are an

integral part of the Community's legal system encompassing legally binding and legally non-binding decisions of international forums established by these treaties (Hey 1998).

The rule of law is the fundamental basis of EU, and its activities are based on treaties which are agreed by all its member states and constitute the primary source of European legislation (the secondary legislation such as regulations, directives and recommendations are derived from the treaties). Secondary legislation and measures of the EC institutions should be in line with and interpreted in the context of the treaties which include the fundamental objectives and principles of European policy and legal development (Jan 1997).

The EU law is an evolving framework which is influenced by international development including the activities within existing or new MEAs as well as within major international institutions and their instruments. The main norms within the EU framework comprise regulations (immediately effective in the Member States and not requiring national legislation), decisions (directed toward specific states and their governments) and directives which bind the Member States while national legislators may choose the normative means for their implementation in line with their goals).

In general, the EU law has primacy and it is directly applicable and effective. Moreover, the EU law is characterized by the interpretation of national law in the context of EU law and the goal of integration. The fundamental EU legal principles comprise the rule of law, good governance, sustainable development, environmental protection, sustainable utilization of natural resources and human rights principles. The role of legal principles as guidelines formed by evolving written law and legal practice is essential within EU law.

European governance aims at less and better legislation and promotes the increased use of consistent soft law instruments such as recommendations, communications, codes of practice or codes of conduct, action programmes, resolutions, declarations, conclusions and guidelines (Senden 2004). The EU international relations law is dynamic and multi-layered allowing participation in international agreements and related obligations (Koutrakos 2006). International agreements concluded by the EC are binding on the Community and its Member States (Hartley (2004; Lenaerts et al. 2005).

The role of new principles is significant within EU law, and sustainable development has implications for legal measures, international cooperation and economic relations at the international, regional and national levels. In addition, the main environmental principles common to national, regional and international law include, for instance, best environmental practices, best available technologies, precaution and prevention (Kiss and Shelton 1997). The EC often applies soft law through the practice of its institutions and soft law can be transformed into hard law by legal or administrative decisions and by legislation (Snyder 1993). General principles refer to generally accepted and recognized principles that apply to some specific legal area such as environmental law (Tridimas 2006).

The European environmental law includes international norms accepted by the European states, the EC law and the laws of European states related to the environment. The EC environmental law includes all rules derived from all levels and related sources (Kiss and Shelton 1997). Furthermore, the EC environmental law must be considered within the overall EU legal and political framework (Sands 2003). In general, the EC is a very important source of environmental law and the Member States have limited their sovereign rights in this particular legal domain (Bell and McGillivray 2006).

Forests and SFM are major issues within the overall EU policy and legal framework for foreign and sustainable development policies. The EU and its Member States are actively involved in international forest-related processes as well as in the development of global forest governance and international law and policy on forests and SFM.

The development of consistent approaches and adaptive political and legal frameworks for SFM is a major challenge for international and European forest policies (Schmithüsen 2003a;b). Pan-European conventions and declarations form a basis for SFM and sustainable development (Fredriksson 2003). Forest law development has been dynamic and innovative within the EU and the main driving forces behind this development are international agreements and more integrative and cross-sectoral approaches as well as the commitment to SFM and the adoption of the principle of sustainable development in the forest sector. Other influencing factors include institutional changes and participatory processes at national and local levels as well as the emphasis on multiple uses and values of forests (Bauer et al. 2004; Cirelli 1999; Cirelli and Schmithüsen 2000).

4.7 Summary of the theoretical framework

The summary of the designed theoretical framework for this study is presented below. The summary framework includes international, regional, national and local levels which form a comprehensive, coherent and inter-linked overall framework including all the main theoretical elements described in the previous sections. This framework is dynamic and evolving and ultimately aims at providing a descriptive and normative framework for the promotion of informed decision-making about SFM and good forest governance. The summary of the designed theoretical framework is presented in the Figure 4.

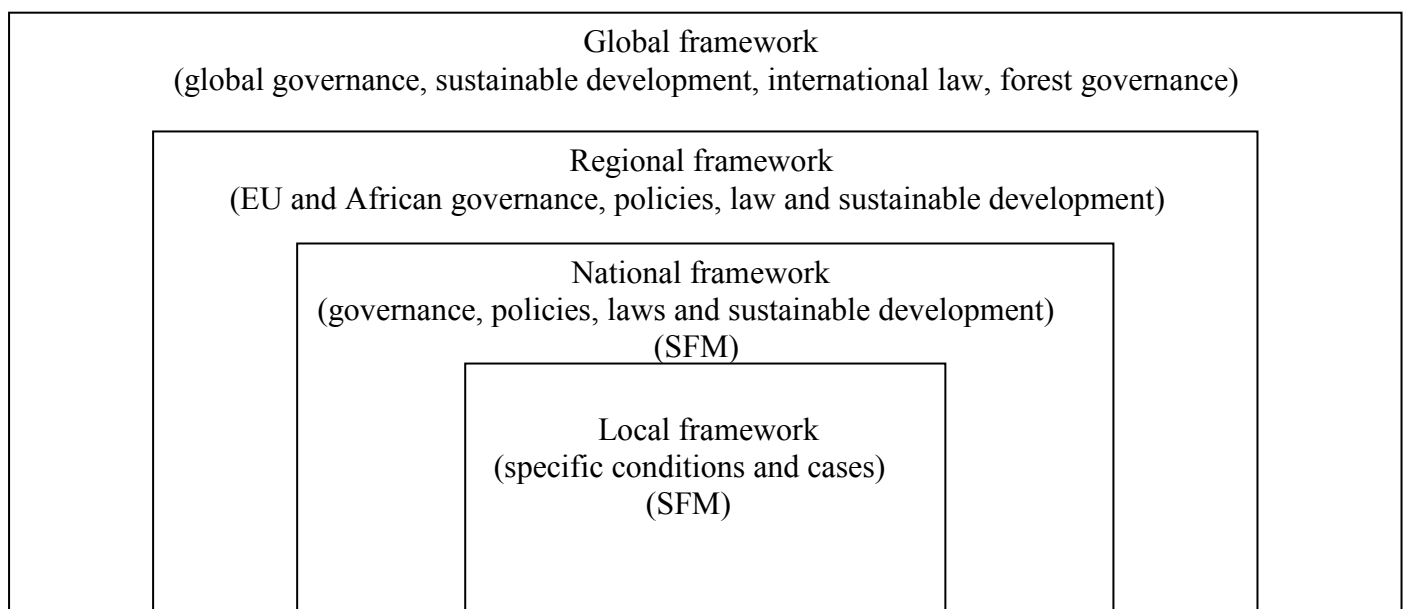


Figure 4. Summary of the designed theoretical framework.

5. Research approach and material

The research approach of the present study was ultimately based on the problem statement, the aims of the study and on chosen analytical and theoretical frameworks. The research approach was comprehensive, multidisciplinary and integrated in accordance with the basic principles of sustainable development. Moreover, the approach aimed to be coherent and consistent within the overall global sustainable development framework. The research approach and its implementation stages are presented in Figure 5.

The elements of the matrix-based assessments were based on the internationally recognized elements of good forest governance, good governance and SFM. Moreover, the case study on Ethiopia included an assessment of capacity building focus areas within a higher education institution (HEI) which in this study was the Wondo-Genet College of Forestry and Natural Resources (WGCF-NR). The selected elements were:

- Good forest governance: 1) multiple actors, levels and networks, 2) NFPs, policies and laws (SFM), 3) standards and principles (SFM), 4) decision-making and institutions and 5) partnerships and participation (including TFRK).
- Good governance: 1) capacity-building and empowerment, 2) extension and training, 3) education and awareness, 4) responsibility and effectiveness, 5) coherence and 6) transparency and accountability.
- SFM: 1) the extent of forest resources, 2) forest biodiversity, 3) forest health and vitality, 4) productive functions of forest resources, 5) protective functions of forest resources, 6) socio-economic functions of the forest and 7) the legal, policy and institutional framework.
- Higher education capacity building: 1) training and extension, 2) education and research and 3) new curriculum development.

The case study on Southern Sudan included interviews and group discussions (village chiefs and other villagers attended) in the project villages in Renk County, Upper Nile State: Shikh Yasin, Abu Khadra, Magara (2 villages), Goz Fami (2 villages), Goz Rum and Nger. These villages are located in the northern parts of Renk County. In addition, interviews and discussions were carried out with the staff of the GoSS MAF DG Forestry in Juba (State of Central Equatoria) and with the Renk County authorities (the County Vice Deputy Commissioners office and the Renk County Forest Department). The main themes of interview and discussion sessions and related questions are presented in Table 20.

The diagnostic and planning tool for good forest governance known as the pyramid (See Mayers et al. 2005) was adopted and applied to the case study on Southern Sudan that involved multiple stakeholders. The approach applied matrix-based assessments with a focus on what is and what is not working and on appropriate next steps to promote good forest governance. Moreover, it comprised scoring in relation to the state of progress and development of each element within the levels: red (no actions taken and more is missing than working), amber (some action is taken and the working parts more or less balance the missing parts) and green (progress is being made and more is working than missing).

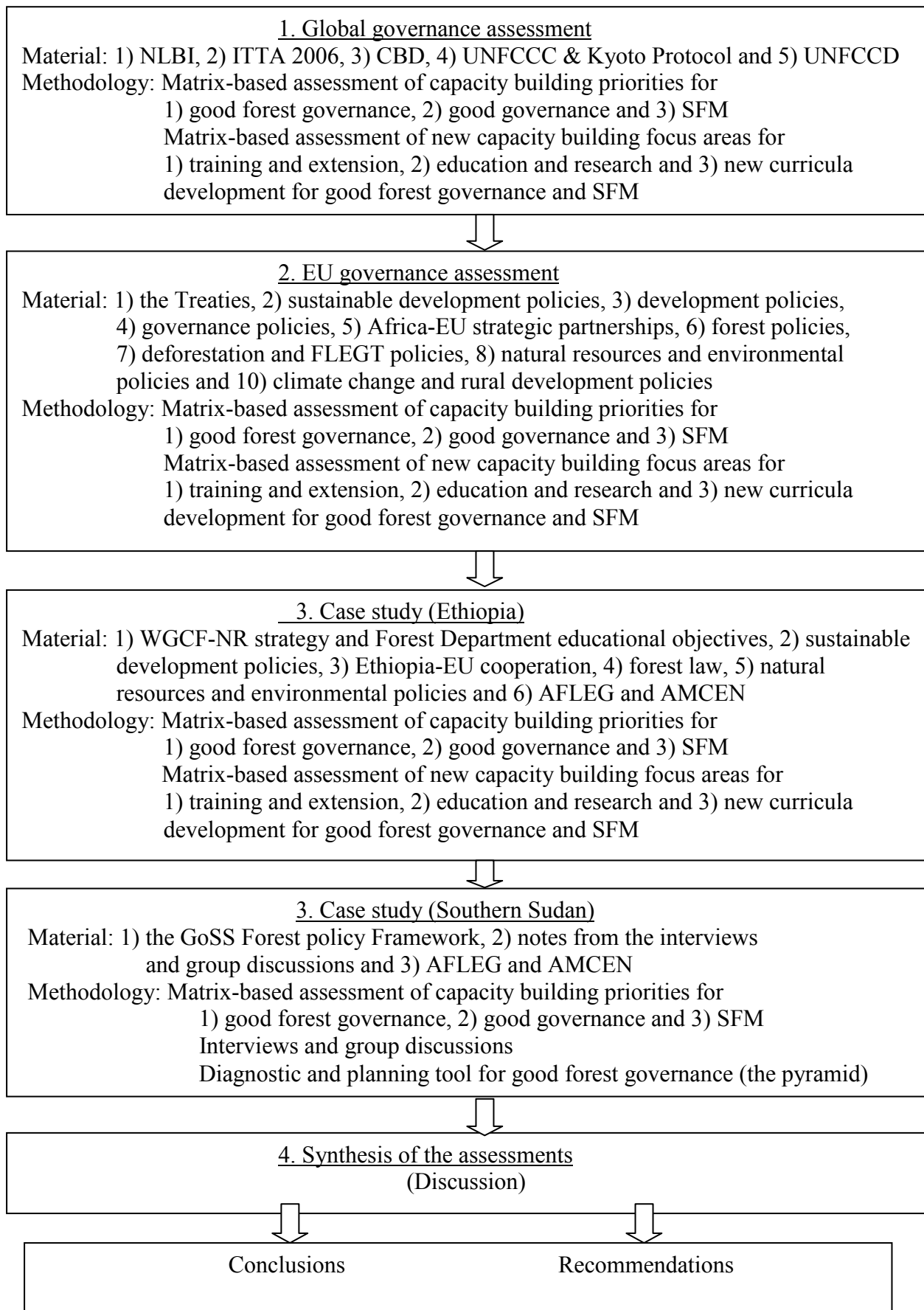


Figure 5. Research approach and implementation stages.

Table 20. Research questions of the interviews and group discussions.

- Sustainable forest management: 1) How sustainable is forest management?, 2) has the wood supply decreased, increased or remained the same? and 3) are trees important and do people like trees?, 3)
- Sustainable natural resources management: 1) How sustainable are current practices? and 2) has the supply of resources decreased, increased or remained the same?
- Environmental and land degradation and climate change challenges: 1) Have the environmental conditions become more severe, better or remained the same?, 2) has the quality of land declined, improved or remained the same? and 3) has the climate changed and if so what kind of impacts it has caused?
- Land use and ownership: 1) Who owns the land?, 2) who uses the land? and 3) who controls land use rights and decides land use practices?
- Governance and public forest authorities: 1) Are there any policies/regulations for forests and natural resources?, 2) if so what is allowed and prohibited?, 3) who enforces policies/regulations, 4) who monitors resource use activities?, and 5) what are the main problems and are there any conflicts?
- Governance reform and development needs: 1) What are the most urgent reform and development needs?, 2) what do people want from the government? 3) are there alternative activities or new livelihood ideas? and 4) are new policies or regulations

This tool provides a comprehensive framework (cf. Figure 6) and it can promote the goal setting for and participatory assessment of forest governance at the national level. The levels of the framework each describe an element of forest governance that should be progressively achieved and put in place, but do not explain the necessary process needed to achieve that element. The elements of good forest governance are based on the generally desirable elements of good practice (based on multiple sources and experiences). Moreover, this analytical tool can link international, national and local levels of forest governance and integrate international policies and field level progress into SFM through identification and implementation of key improvement priorities for good forest governance. In general, this tool is designed for creative use and the encouragement of new ideas (Mayers et al. 2005).

The pyramid tool can support the capacity of stakeholders to manifest national governance that supports local forest governance and potentially contributes to the improvement of international forest governance. In addition, this tool can support NFPs and other broad strategic processes involving multiple stakeholder and sectors such as sustainable development strategies and complement international reporting needs and field-level assessments. This tool can also bring together knowledge of the progress towards good forest governance from many sources and unite assessments of various interventions within and outside the forest sector (Mayers et al. 2005).

Good forest governance can help to address underlying forest problems including many elements that are critical for the achievement of SFM. Moreover, good forest governance can help to establish the essential enabling conditions for SFM, including policy, legal and institutional aspects. The underlying assumption of this tool is that it is possible to identify some common key elements of good forest governance that are shared by many nations. These key elements are not absolute and can vary and change with time and place, in line with case-specific conditions. Moreover, the underlying aspects of this approach include a holistic and cross-sectoral perspective and encouragement of integrated and complementary approaches, thus contributing to synergy between initiatives and instruments (Mayers et al. 2005).

The main uses for this tool are participatory assessment and dialogue, planning improvements (setting objectives and targets) and continuous monitoring and reporting (progress towards SFM). There are limitations to this tool for instance, it does not offer totally objective results or very specific C&I for the evaluation of forest governance in any country. Moreover, the arrangement of the levels and the order of the achievement or implementation of various elements is not absolute and can vary (Mayers et al. 2005).

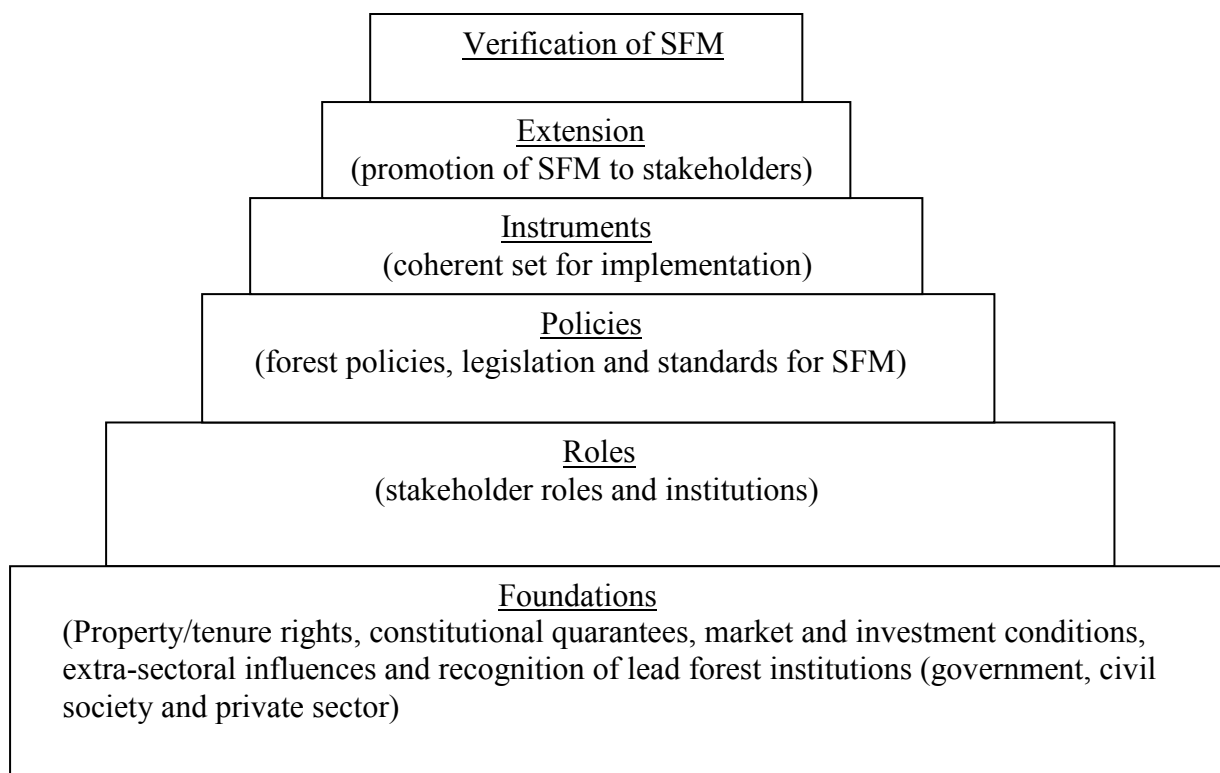


Figure 6. The pyramid of good forest governance (adapted from Mayers et al. 2005).

The elements of good governance within the pyramid framework are mostly under the control of forest stakeholders whereas the elements within the foundations part are less directly controlled by them. However, the forest stakeholders should acknowledge the opportunities and constraints implied by these extra-sectoral elements. In this tool, the basic systems that can contribute to good forest governance include information, participatory mechanisms, finances, skills, and planning and process management (e.g. priority-setting, decision-making, coordination and accountability).

The matrix-based assessment of the implementation and enforcement of MEAs was based on both the UNEP (2008) manual on compliance with and enforcement of MEAs and the analytical tool for good forest governance (the pyramid). The main idea was to find out what is and is not working currently as well as to suggest appropriate measures to promote implementation and enforcement activities. The elements of this assessment were:

- The national framework and instruments.
- National institutional capacity building.
- Broad stakeholder consultation and involvement.
- National measures in line with standards and national and local systems, conditions and needs.
- Training, education and awareness raising.
- Financial and technical assistance.

6. Results

6.1 Global governance framework

6.1.1 Non-legally binding instrument on all types of forests

The Non-Legally Binding Instrument on All Types of Forests (NLBI) was adopted by the UN General Assembly in 2007. The definition of the scope of this instrument clearly states that this instrument applies to all types of forests. The Member States should respect the principles of the NLBI which define that the instrument is voluntary and non-legally binding. Moreover, the Member States commit themselves to global, regional and national work towards achieving the shared global objectives on forests and recognize, in line with the instrument, that SFM is a dynamic and evolving concept which aims at maintaining and enhancing the economic, social and environmental values of all types of forests for the benefit of present and future generations. The results of the matrix assessment of the implications of the NLBI for good forest governance are presented in Table 21. and the results on the implications for SFM and good governance are presented in Annex 1. The purpose of the NLBI was to (NLBI 2007):

- 1) Strengthen political commitment and action at all levels to implement effectively sustainable management of all types of forests and to achieve the shared global objectives on forests.*
- 2) Enhance the contribution of forests to the achievement of the internationally agreed development goals including the Millennium Development Goals particularly with respect to poverty eradication and environmental sustainability.*
- 3) Provide a framework for national action and international cooperation.*

The role of international cooperation for the implementation of SFM and achievement of good governance at all levels are among the main elements of the NLBI. The Member States of the NLBI emphasize that SFM contributes significantly to sustainable development and poverty eradication and recognize that forests and trees outside forests provide multiple economic, social and environmental benefits. In addition, the Member States recognize the sovereign right of States to exploit their own resources pursuant to their own environmental and developmental policies and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction in line with the UN Charter and the principles of international law. The principle on the common but differentiated responsibilities of countries was also recognized. The NLBI global objectives on forests are as follows (NLBI 2007):

- 1) Reversing the loss of forest cover worldwide through SFM including protection, restoration, afforestation and reforestation and increased efforts to prevent forest degradation.*
- 2) Enhancement of forest-based economic, social and environmental benefits including improvement of the livelihoods of forest dependent people.*
- 3) Significant increase of 1) the area of protected forests worldwide and other areas of sustainably managed forests and 2) the proportion of forest products from sustainably managed forests.*
- 4) Reversing the decline in official development assistance for SFM and mobilization of significantly increased, new and additional financial resources from all sources for the implementation of SFM.*

6.1.2 IPF/IFF Proposals for Action

The IPF's mandate was to pursue a consensus and formulate options for further actions to combat deforestation and forest degradation as well as to promote the management, conservation and sustainable development of all types of forests (IPF 1997). Moreover, the Panel was asked to promote multidisciplinary action at the international level consistent with the Forest Principles and taking into account Agenda 21. The Panel recognized that SFM requires comprehensive forest policy frameworks and broad intersectoral approaches. The Panel was mandated to consider the following main interrelated programme elements (IPF 1997):

- Implementation of the UNCED decisions related to forests at the national and international levels including an examination of sectoral and cross-sectoral linkages: 1) progress through national forest and land-use programmes, 2) underlying causes of deforestation and forest degradation, 3) traditional forest-related knowledge, 4) fragile ecosystems affected by desertification and drought, 5) impact of airborne pollution on forests and 6) needs and requirements of developing and other countries with low forest cover.
- International cooperation in financial assistance and technology transfer: 1) financial assistance and 2) technology transfer and capacity-building and information.
- Scientific research, forest assessment and development of C&I for SFM: 1) assessment of the multiple benefits of all types of forests, 2) forest research, 3) methodologies for the proper valuation of the multiple benefits of forests and 4) C&I for SFM.
- Trade and environment in relation to forest products and services.
- International organizations and multilateral institutions and instruments including appropriate legal mechanisms.

The results of the matrix assessment of the implications of the IPF/IFF Proposals for Action for good forest governance are presented in Table 22 and the results on the implications for SFM and good governance are shown in Annex 2. The IFF continued the international forest policy dialogue and promoted the implementation of the IPF Proposals for Action and further dealt with the issues based on the IPF process. The aim of the Forum was to promote the management, conservation and sustainable development of all types of forests. The programme elements of the IFF comprised (IFF 1999):

- Promoting and facilitating the implementation of the IPF Proposals for Action and reviewing, monitoring and reporting on progress in the management, conservation and sustainable development of all types of forests by 1) promoting and facilitating implementation and 2) monitoring progress in implementation.
- Matters left pending and other issues arising from the programme elements of the IPF process: 1) needs for financial resources, 2) trade and environment, 3) transfer of environmentally sound technologies to support SFM, 4) issues that need further clarification and 5) forest-related work of international and regional organizations and under existing instruments.

Table 21. Implications of the NLBI for good forest governance.

Good forest governance element	Development priorities
Multiple actors, levels and networks	<p>Education, extension and training for the implementation of SFM</p> <p>Increased, new and additional financial resources from all sources</p> <p>International trade in forest products from sustainably managed forests</p> <p>Forestry R&D (including integrated and interdisciplinary research)</p>
NFPs, policies and laws (SFM)	<p>Development and implementation of NFPs and policies for SFM</p> <p>Forest law enforcement and good governance at all levels</p> <p>Cross-sectoral policy integration and coordination</p> <p>Combating illicit international trafficking in forest products and addressing forest-related illegal practices</p>
Standards and principles (SFM)	<p>C&I for SFM</p> <p>Good environmental practices</p> <p>Forest products from sustainably managed forests</p> <p>Efficient production and processing of forest products</p> <p>TFRK in SFM</p> <p>National and local adaptation of forest-related technologies</p> <p>Environmental impact assessments</p> <p>Voluntary instruments for forest products from sustainably managed forests</p> <p>Protection of forest health from natural events and human activities</p>
Decision-making and institutions	<p>Linking global, regional, national and local governance through networks</p> <p>Cross-sectoral policy integration and coordination</p> <p>Sharing and use of best practices in SFM</p> <p>TFRK in SFM</p> <p>Multiple values of forest products and services</p> <p>Incorporation of scientific expertise into SFM</p> <p>Incentives for SFM and forest protection</p> <p>Monitoring, assessment and reporting about progress towards SFM</p>
Partnerships and participation (including TFRK)	<p>Partnerships for the implementation of SFM</p> <p>International, regional and subregional partnerships for SFM (including South-South cooperation)</p> <p>TFRK in SFM</p> <p>Access to and transfer of environmentally sound and innovative technologies and knowhow about SFM</p> <p>Participation of all stakeholders (including local communities)</p>

Table 22. Implications of the IPF/IFF Proposals for Action for good forest governance.

Good forest governance element	Development priorities
Multiple actors, levels and networks	<p>Coordination, collaboration and complementarity of activities among bilateral and multilateral donors and among international instruments related to forests</p> <p>Establishment of protected areas to safeguard forest and related ecosystems including water supplies and historical and traditional uses</p> <p>National information on the management, conservation, and sustainable development of all types of forests</p>
NFPs, policies and laws (SFM)	<p>Development, implementation, monitoring and evaluation of NFPs including 1) consistency with national policies and international agreements, 2) international cooperation in the forest sector, 3) multiple approaches for SFM, 4) integration of C&I for SFM into the overall process of NFPs, 5) partnerships and participatory mechanisms to involve interested parties, 6) recognition and respect for customary and traditional rights (e.g. indigenous people and local communities) and 7) capacity-building including training, extension services, technology transfer and financial assistance</p>
Standards and principles (SFM)	<p>National-level C&I for SFM taking into account 1) the participatory and cross-sectoral approach, 2) specific country conditions and integration with NFP and 3) internationally and regionally agreed initiatives</p> <p>Internationally, regionally, subregionally and nationally agreed C&I as a framework for promoting best forest practices and in facilitating SFM</p> <p>Integration of national-level C&I for SFM in national forest assessments</p> <p>Trade in wood and non-wood products and services from sustainably managed forests</p>
Decision-making and institutions	<p>Effective participation of all interested parties in decision-making about forest management</p> <p>Provision of timely, reliable and accurate information as a foundation for public understanding and decision-making</p> <p>Addressing the underlying causes of deforestation and forest degradation</p>
Partnerships and participation (including TFRK)	<p>Identification, preservation and maintenance of TFRK including innovations and practices</p> <p>Community involvement in SFM through technical guidance, economic incentives and legal frameworks</p> <p>Establishment of stronger linkages between traditional and emerging national SFM systems (e.g. between TFRK and new technologies)</p> <p>Education, training, extension systems and participatory research involving indigenous and local communities to develop resource management approaches that will reduce the pressure on forests</p> <p>Promotion, facilitation and finance of access to and the transfer of environmentally sound technologies and corresponding know-how to developing countries</p>

6.1.3 International Tropical Timber Agreement 2006

The ITTA (2006) aims at promoting international trade in tropical timber and timber products from sustainably managed sources in line with the work of the ITTO and the relevant MEAs within the UN framework. The agreement recognizes the contribution of SFM to sustainable development and internationally agreed development goals. Moreover, SFM involves multiple economic, environmental and social benefits including timber and non-timber forest products and environmental services as well as the application of C&I for SFM. Ensuring SFM and legally sourced timber exports requires good governance, clear land tenure arrangements and cross-sectoral coordination (ITTA 2006).

In addition, the ITTA 2006 recognizes that the promotion of SFM needs to be supported by collaboration between members of the agreement, international organizations, private sector, civil society (encompassing indigenous and local communities) and other stakeholders. Collaboration for improved forest law enforcement and the promotion of trade from legally harvested timber is important. Additionally, capacity building within local and forest-dependent communities can support the achievement of the ITTA 2006 objectives. SFM requires increased investments such as reinvestment of forest revenues including timber trade (ITTA 2006). The results of the matrix assessment of the implications of the ITTA 2006 for good forest governance are presented in Table 23 and the results on the implications for SFM and good governance are shown in Annex 3.

6.1.4 Convention on Biological Diversity

The CBD (1992) aims at promoting the conservation and sustainable use of biological diversity. This MEA is relevant in the contexts of forests and natural resources and their sustainable management as well as of overall environmental protection. Moreover, many indigenous and local communities are dependent (in their traditional lifestyles) on biological resources. The equitable sharing of benefits from the use of traditional knowledge, innovations and practices related to the conservation of biological diversity and the sustainable use of its components is another important issue. This convention stipulates that national strategies, plans or programmes should be developed for the conservation and sustainable use of biological diversity or existing strategies, plans or programmes should be adapted for this purpose. In addition, the conservation and sustainable use of biological diversity should be integrated into relevant sectoral or cross-sectoral plans, programmes and policies. Research and public education and awareness should also be promoted (CBD 1992).

The CBD also states that environmental impact assessment of proposed projects that are likely to have significant adverse effects on biological diversity (aiming to avoid or minimize such effects) should be introduced with public participation. Furthermore, arrangements should be established to ensure that the environmental consequences of programmes and policies that are likely to have significant adverse impacts on biological diversity are duly taken into account. The provision of new and additional financial resources as well as of appropriate access to and transfer of technology (including biotechnology) and substantial investments are essential elements of this convention as is the case in other MEAs (CBD 1992). The results of the matrix assessment of the implications of the CBD for good forest governance are presented in Table 24 and the results on the implications for SFM and good governance are shown in Annex 4.

Table 23. Implications of the ITTA 2006 for good forest governance.

Good forest governance element	Development priorities
Multiple actors, levels and networks	<p>Mechanisms for the provision of new and additional financial resources with a view to promote the adequacy and predictability of funding and expertise needed to enhance the capacity of producer members to attain the objectives of the agreement</p> <p>Support and develop tropical timber reforestation as well as rehabilitation and restoration of degraded forest land with due regard for the interests of local communities dependent on forest resources</p> <p>Improved understanding of the contribution of non-timber forest products and environmental services to the sustainable management of tropical forests</p>
NFPs, policies and laws (SFM)	<p>Expansion and diversification of international trade in tropical timber from sustainably managed and legally harvested forests</p> <p>Development of national policies aimed at sustainable utilization and conservation of timber producing forests and maintaining ecological balance in the context of the tropical timber trade</p> <p>The capacity of members to improve forest law enforcement and governance and address illegal logging and related trade in tropical timber</p>
Standards and principles (SFM)	<p>Sustainable management of tropical timber producing forests</p> <p>Information sharing for a better understanding of voluntary mechanisms such as certification to promote sustainable management of tropical forests</p>
Decision-making and institutions	<p>R&D to improve forest management and efficiency of wood utilization and the competitiveness of wood products as well as to increase the capacity to conserve and enhance other forest values in timber producing tropical forests</p> <p>Improved understanding of the contribution of non-timber forest products and environmental services to the sustainable management of tropical forests</p>
Partnerships and participation (including TFRK)	<p>Recognition of the role of forest-dependent indigenous and local communities in achieving SFM and development of strategies to enhance the capacity of these communities to sustainably manage tropical timber producing forests</p> <p>Access to and transfer of technologies and technical cooperation</p> <p>Further processing of tropical timber from sustainable sources in producer member countries to promote their industrialization and to increase their employment opportunities and export earnings</p>

The Conference of the Parties (COP6, Decision VI/22) adopted the expanded programme of work on forest biological diversity which included three programme elements as well as related objectives and activities (CBD 2002): conservation, sustainable use and benefit-sharing (e.g. addressing forest fires and illegal logging) ; institutional and socio-economic enabling environment (e.g. FLEGT) and knowledge, assessment and monitoring (e.g. forest assessments). The parties to the CBD pointed out in 2004 (Decision VII/1 of COP7) that the expanded programme of work on forest biological diversity has promoted the achievement of SFM at global, regional and national levels (CBD 2004a). The parties to the CBD recognized in 2004 (Decision VII/11 of COP7) that SFM can promote the application of the ecosystem approach to forests and that SFM tools such as

C&I can be used to implement this approach which requires integrated and adaptive management to address the dynamic and complex nature of ecosystems (CBD 2004b).

The parties to the CBD concluded in 2008 (Decision IX/5 of COP9) that capacity building for SFM should be promoted, also with respect to non-timber forest products and resources and taking into account the traditional knowledge of indigenous and local communities with their approval and involvement. Capacity building for SFM should also include the management and valuation of forest ecosystem services. Moreover, unsustainable use of forest products and resources should be addressed as a development priority. All obstacles to SFM such as lack of market access for value-added forest products from sustainably managed forests or barriers caused by land-tenure and resource rights and responsibility issues should be removed. Forest law enforcement and governance at all levels are among the key development priorities and they include effective legislative and non-legislative measures to prevent harvesting of forest products (timber and non-timber) and resources against national legislation (CBD 2008).

6.1.5 UNFCCC and the Kyoto Protocol

The United Nations Framework Convention on Climate Change provides an international framework for intergovernmental efforts to address climate change challenges. The convention is based on the recognition that the climate system is a shared resource and its stability can be affected by industrial and other emissions of greenhouse gases. The ultimate objective of this convention and any related legal instruments that the COP may adopt is to achieve (in accordance with the relevant provisions of the Convention) stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic (human induced) interference with the climate system. The convention stipulates that such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner (UNFCCC 1992).

The main implications of this convention for governments include the development of national strategies and information systems on emissions, policies and best practices. Moreover, the convention recognize that States should enact effective environmental legislation and confirms that environmental standards, management objectives and priorities should reflect the relevant environmental and developmental context (UNFCCC 1992). The results of the matrix assessment of the implications of the UNFCCC and the Kyoto Protocol for good forest governance are presented in Table 25 and the results on the implications for SFM and good governance are included in Annex 5.

The Kyoto Protocol is an international agreement that is linked to the UNFCCC and its main features highlight binding emission targets and commitments made by industrialized countries in line with common but differentiated responsibilities. Moreover, the protocol comprises market-based mechanisms to support national measures: emissions trading, a clean development mechanism (CDM) and joint implementation (JI). These mechanisms aim at promoting sustainable development through investment in projects that reduce emissions in developing countries (CDM), joint emission-reduction or emission removal projects (JI) and technology transfer (Kyoto Protocol 1998).

Table 24. Implications of the CBD for good forest governance.

Good forest governance element	Development priorities
Multiple actors, levels and networks	Cooperation between governmental authorities and the private sector in developing methods for sustainable use of biological resources International and national scientific and technical cooperation in the field of conservation and sustainable use of biological diversity
NFPs, policies and laws (SFM)	Establishment of a system of protected areas or areas where special measures need to be taken to conserve biological diversity including development of guidelines for their selection, establishment and management Regulation or management of biological resources important for the conservation of biological diversity whether within or outside protected areas with a view to ensure their conservation and sustainable use Development or maintenance of necessary legislation and/or other regulatory provisions for the protection of threatened species and populations Protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings Rehabilitation and restoration of degraded ecosystems and promotion of the recovery of threatened species e.g. through the development and implementation of plans or other management strategies
Standards and principles (SFM)	Sustainable use of components of biological diversity Adaptation of measures relating to the use of biological resources to avoid or minimize adverse impacts on biological diversity Environmentally sound and sustainable development in areas adjacent to protected areas with a view to furthering protection of these areas Prevention of the introduction of as well as control or eradication of those alien species which threaten ecosystems, habitats or species
Decision-making and institutions	Integration of the consideration of conservation and sustainable use of biological resources into national decision-making Provision of the conditions needed for compatibility between present uses and the conservation of biological diversity and the sustainable use of its components
Partnerships and participation (including TFRK)	Protection and encouragement of customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements Support of local populations to develop and implement remedial action in degraded areas where biological diversity has been reduced Respect, preservation and maintenance of knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biological diversity Wider application of knowledge, innovations and practices of indigenous and local communities (with the approval and involvement of the holders) and promotion of the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices

The COP7 recognized the importance of good practice guidance, uncertainty management and monitoring of changes in carbon stocks and greenhouse gas emissions by sources as well as of removal by sinks resulting from forestry activities, land use and land-use changes (UNFCCC 2001). In addition, The COP9 noted the importance of the implementation of small-scale afforestation and reforestation projects under the CDM encompassing good practice guidance and the consideration of socio-economic and environmental (e.g. on biodiversity and natural ecosystems) impacts (UNFCCC 2003). The COP10 and COP11 encouraged reporting on greenhouse gas emissions by sources and removal by sinks with annual inventory information on land use, land-use change and forestry activities (UNFCCC 2006; 2004). Moreover, the COP13 adopted the Bali Action Plan which promoted global emission reductions, technology development and transfer, adaptation activities, financial resources and investment and national and international action on mitigation of climate change including the following element (UNFCCC 2007a):

Policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries.

This statement is a major international policy commitment and legal obligation for reduced emissions from deforestation and forest degradation (known as REDD); it has become one of the leading issues in the global agenda related to climate change and forests. Furthermore, the COP13 addressed approaches to reducing emissions from deforestation in developing countries including the recognition of the complexity of the problem, different national conditions and the existence of multiple drivers of deforestation and forest degradation. The promoted approaches included capacity building, technology transfer, demonstration activities and addressing the institutional needs of developing countries (UNFCCC 2007b).

Furthermore, the COP15 emphasized the importance of sustainable management of forests, conservation and enhancement of forest carbon stocks in developing countries while advocating full and effective engagement of indigenous peoples and local communities as well as the potential contribution of TFRK. The need to establish national forest monitoring systems (with capacity building and the involvement of indigenous peoples and local communities in monitoring and reporting) and to identify the drivers of deforestation and forest degradation were also recognized (UNFCCC 2009a).

Reduced emissions from deforestation and forest degradation (REDD) has become a major element of global climate change policy and it has brought forests and SFM to the core of the international climate change agenda. The REDD+ approach refers to the enhancement of forest carbon stocks in developing countries. In general, REDD aims at combating deforestation and the promotion of forest protection, conservation and SFM through policy instruments and economic/financial incentives.

The conservation and maintenance of forest carbon stocks through SFM and afforestation and reforestation have been recognized within the REDD approach as mitigation activities. SFM, transparent forest governance structures and stakeholder participation are promoted within the climate mitigation actions. In addition, the need to use funds for SFM, conservation and community forestry is recognized. Moreover, actions should complement or be consistent with NFPs and relevant international conventions and agreements. Other key issues include consistency with national sustainable development goals, sustainable finance, technology support and capacity building (UNFCCC 2009b).

Table 25. Implications of the UNFCCC and the Kyoto Protocol for good forest governance.

Good forest governance element	Development priorities
Multiple actors, levels and networks	Consideration of the specific needs and special circumstances of areas that are particularly vulnerable to the adverse effects of climate change Promotion of sustainable development
NFPs, policies and laws (SFM)	Development of appropriate and integrated plans for water resources and agricultural management and for the protection and rehabilitation of areas affected by drought and desertification
Standards and principles (SFM)	Sustainable forest management practices, afforestation and reforestation Development and application of technology transfer, practices and processes that control, reduce or prevent human-induced emissions of greenhouse gases in all relevant sectors including forestry and agriculture Sustainable management and cooperation in the conservation and enhancement of sinks and reservoirs of all greenhouse gases including biomass, forests and other terrestrial ecosystems
Decision-making and institutions	Precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects (lack of full scientific certainty should not be used as a reason for postponing measures in case of serious threats or irreversible damage) Common but differentiated responsibilities and respective capabilities Specific needs and special circumstances of developing countries
Partnerships and participation (including TFRK)	Provision of new and additional financial resources to meet the agreed full costs (including transfer of technology) Transfer of or access to environmentally sound technologies and know-how especially to meet the needs and concerns of 1) arid and semi-arid areas, 2) forested areas and areas liable to forest decay, 3) areas prone to natural disasters, 4) areas liable to drought and desertification, 5) areas with fragile ecosystems and 6) economies that are highly dependent on income generated from the production, processing and export of fossil fuels and associated energy-intensive products Consideration of the specific needs and special circumstances of areas that are particularly vulnerable to the adverse effects of climate change Enhancement of energy efficiency (e.g. new and renewable forms of energy) and promotion of sustainable agriculture

The Bali Action Plan introduced the basis for the REDD approach (policy approaches and positive incentives) in the context of enhanced international and national action in mitigation of climate change. National actions in developing countries should be carried out in the context of sustainable development and be supported by capacity building, finance and technology. Mitigation actions should be based on coherent and integrated approaches taking into account the different conditions in developing countries as well as economic and social consequences of response measures (UNFCCC 2007a).

The REDD approach is defined as an effort to create financial value for the carbon stored in forests and consequently to offer incentives for developing countries to reduce emissions from forested lands and to invest in low-carbon paths to sustainable development. Furthermore, the UN-REDD Programme introduces consensus, consistency, knowledge and best practices at the global level as well as supports national REDD processes through the identification of ways to address specific drivers of deforestation, access to finance and technical assistance, facilitation of the participation of national stakeholders and the development of methods and tools for greenhouse gas emissions monitoring and measurement (UN-REDD 2010).

The REDD approach includes many concerns such as the implications for indigenous people, local communities and natural forests as well as the need for good governance and the role and nature of SFM in this context. The main principles related to the indigenous peoples in the global strategy for REDD (in its focus on indigenous peoples and local communities) include a human-rights based approach to all REDD activities involving indigenous peoples (in line with international policy and law) and broad representation of indigenous peoples through the involvement of legitimate indigenous authorities, institutions and organizations (UNU-IAS 2008). The key element of this strategy comprise (UNU-IAS 2008):

- Engagement of indigenous peoples and forest-dependent communities in all UN processes and bodies relevant to addressing climate change.
- Development of legal framework and consultation mechanisms for indigenous peoples including consideration of customary laws, norms and practices as well as of the rights of forest-dependent communities and evaluation of compliance with government commitments about forests (e.g. UNFF and CBD) and of the legal situation of land tenure and recognition of indigenous territories.
- Capacity building including all actors and structures at all levels (e.g. awareness raising on REDD issues and empowerment of indigenous peoples and forest-dependent communities through train-the-trainer initiatives) and training in good governance for government officials involved in REDD.
- Subnational processes and mechanisms to decentralize REDD and the application of environmental impact assessments and social/cultural impact assessments with the full and effective participation of indigenous peoples.
- Establishment of 1) funds for capacity building and climate change actions that indigenous peoples can access directly (under their direction, control and management) and 2) an independent committee (including indigenous peoples, NGOs and other stakeholders) to monitor all REDD activities at all levels.

6.1.6 United Nations Convention to Combat Desertification

The objective of the UNCCD (1994) is to combat desertification and mitigate the effects of drought in countries experiencing serious drought and/or desertification particularly in Africa. The convention outlines that the achievement of this objective requires effective action at all levels supported by international cooperation and partnership arrangements within the framework of an integrated approach and with a view to contribute to the achievement of sustainable development in affected areas. Moreover, long-term integrated strategies are needed, for instance, an emphasis on both improved productivity of land and the rehabilitation, conservation and sustainable management of land and water resources. These measures contribute to improved living conditions in affected areas particularly at the community level (UNCCD 1994). The results of the matrix assessment of the implications of the UNCCD for good forest governance are presented in Table 26 and the results on the implications for SFM and good governance are shown in Annex 6.

The affected countries in Africa are given priority in the implementation of this Convention and the provisions include specific obligations for regional implementation of combating desertification and/or mitigation of the effects of drought in Africa. Sustainable economic growth, social development and poverty eradication are essential sustainability objectives and priorities of affected developing countries particularly in Africa. National action programmes (NAPs) are promoted as tools for the implementation of the obligations of this convention for affected countries through development partnerships. Desertification and drought affect sustainable development through their interrelationships with important social issues such as poverty, poor health and nutrition, lack of food security, migration, displacement of persons and population growth (UNCCD 1994).

The synergy between UNCCD, CBD and UNFCCC (also UNFF) could be improved through SFM with full participation of local communities, technology innovation and transfer, the use of forest-related knowledge, national and local level (participatory and community-based) forest fire management, information exchange on deforestation, the promotion of afforestation and reforestation activities, renewable energy and the efficient use of firewood as well as national forest inventories. Moreover, capacity building, financial assistance and technology transfer are national development priorities for developing countries within the convention (UNCCD and CBD 2004).

Table 26. Implications of the UNCCD for good forest governance.

Good forest governance element	Development priorities
Multiple actors, levels and networks	Obligation of affected countries to 1) promote regional cooperation and integration in programmes and activities and 2) promote the exchange of information on appropriate technology, knowledge, know-how and best practices between and among them NAPs to encourage active decentralization, devolving responsibility for management and decision-making to local authorities and encouraging initiatives and the assumption of responsibility by local communities and the establishment of local structures
NFPs, policies and laws (SFM)	Obligation of affected countries to provide an enabling environment through appropriate strengthening of relevant existing legislation and enactment of new laws and establishment of long-term policies and action programmes NAPs to 1) define the roles and responsibilities of central government and local authorities within the framework of a land use planning policy and 2) adjust the institutional and regulatory framework of natural resource management to provide security of land tenure for local populations Use and dissemination of the knowledge, know-how and practices of local people in technical cooperation programmes
Standards and principles (SFM)	Obligation of developed countries to promote, finance and/or facilitate the financing of the transfer, adaptation and access to appropriate environmental technologies and know-how Adaptation of relevant environmentally sound technology and traditional methods of agriculture and pastoralism to modern socio-economic conditions Provision of appropriate training and technology in the use of alternative energy sources (particularly renewable energy resources and aimed at also reducing dependence on wood for fuel)
Decision-making and institutions	Obligation of developed countries to assist in strengthening of capacities to enable improvement of institutional frameworks, scientific and technical capabilities, information collection and analysis and R&D Obligation of affected countries to 1) rationalize and strengthen existing institutions concerned with desertification and drought and involve other existing institutions to make them more effective and to ensure more efficient use of resources and 2) implement reforms in progress towards greater decentralization and resource tenure
Partnerships and participation (including TFRK)	Obligation of developed countries to 1) provide and/or facilitate access to financial and/or other resources and 2) continuously allocate significant resources and/or increased resources Obligation of African countries to implement participation of local populations and communities Capacity-building including institution building, training and development of relevant local and national capacities for efforts to combat desertification and mitigate the effects of drought including full participation of all levels of local people Establishment and/or strengthening of support and extension services to disseminate relevant technology methods and techniques

6.2 EU framework

6.2.1 Treaties

The results of this assessment outline the main elements of the EU Treaties and especially their main implications for capacity building for good forest governance and SFM. The summary results of the EU framework assessment are presented in section 6.2.12 and in Annex 8. The Treaty on European Union (EU 2006) includes the recognition of and provisions for sustainable development. The preamble states that the principle of sustainable development should be taken into account and Article 2 stipulates that the EU objectives include the achievement of balanced and sustainable development. Article 6 recognizes that the Union is founded on the principles of liberty, democracy, respect for human rights and fundamental freedoms and the rule of law which are common to the Member States. Moreover, Article 11 provides that the EU defines and implements a common foreign policy covering all areas and including objectives such as the promotion of international cooperation and the development of democracy and the rule of law (EU 2006a).

The Treaty obliges the Member States to support the EU external policy with coherent and effective actions in international relations and recognizes the need to respect consistency between all EU policies and its external activities. The provisions on common foreign and security policy comprise obligations to respect the principles, objectives, general guidelines and consistency of the common foreign and security policy and the decisions taken within the relevant framework (EU 2006a). The EU Treaty comprised the following provisions (EU 2006a):

- *The Union shall be served by a single institutional framework which shall ensure the consistency and the continuity of the activities carried out in order to attain its objectives while respecting and building upon the *acquis communautaire**³⁶.
- *The Union shall in particular ensure the consistency of its external activities as a whole in the context of its external relations, security, economic and development policies*³⁷.

The principles of the Treaty establishing the European Community (EU 2006) include harmonious, balanced and sustainable development of economic activities and a high level of protection and improvement of the quality of the environment. The EC Treaty comprised the following provisions on the environment (EU 2006a):

- 1) *Environmental protection requirements must be integrated into the definition and implementation of the Community policies and activities in particular with a view to promoting sustainable development*³⁸.
- 2) *Community policy on the environment shall contribute to pursuit of the following objectives: 1) preserving, protecting and improving the quality of the environment, 2) protecting human health, 3) prudent and rational utilisation of natural resources and 4) promoting measures at international level to deal with regional or worldwide environmental problems*³⁹.
- 3) *Community policy on the environment shall aim at a high level of protection taking into account the diversity of situations in the various regions of the Community. It shall be based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay*⁴⁰.

³⁶ Paragraph 1, Article 3, p. 11.

³⁷ Paragraph 2, Article 3, p. 11.

³⁸ Article 6, p. 46.

³⁹ Paragraph 1, Article 174, p. 123.

⁴⁰ Paragraph 2, Article 174, p. 123.

- 4) *The Community and the Member States shall cooperate with third countries and with the competent international organisations*⁴¹.

6.2.2 EU sustainable development policies

The results of this assessment outline the main elements of the EU sustainable development policies and especially their main implications for capacity building for good forest governance and SFM. The summary results of the EU framework assessment are presented in section 6.2.12 and in Annex 8. The EU recognized sustainable development as a fundamental objective and established in 2001 a coherent and long-term sustainable development strategy (EU 2001a) which was renewed in 2006 (EU 2006b). The EU strategy was developed in accordance with EU's global commitments and obligations. The original strategy aimed at integrating economic, social and environmental aspects of development and at promoting a new approach to policy-making at the EU and global levels through internal and external policies for sustainability. The EU recognized the need for comprehensive and cross-sectoral approaches. Moreover, the EU aimed at promoting global sustainability and international responsibility, highlighting its role as a development partner and the support to developing countries through external policies for sustainability (EU 2001a).

The EU aims at implementing its global commitments to sustainable development by promoting strong international governance for sustainable development and coherence between and within EU's external and internal policies with integration of sustainability goals into all policies (EU 2003b). The EU emphasized the national responsibility to develop and implement sustainable development strategies as well as to promote good governance and enforce clear and effective laws that support sustainable development. The EU promotes the contribution of trade to sustainable development and aims at providing capacity building and technical assistance for developing countries to promote exports and policies to address sustainability challenges. In addition, the EU contributes to poverty reduction through its external policies (EU 2003b).

In general, the EU strategy provides a policy framework for all EU efforts in this field and it deals with an integrated approach to policy making based improved legislation, impact assessments and the application of the main principles of sustainable development. This involves long and short term approaches and action at all levels, so as to promote economically, socially and environmentally sustainable development including multiple instruments such as regulations, incentives and market-based instruments. The EU strategy makes the following statement (EU 2006b):

*Sustainable development means that the needs of the present generation should be met without compromising the ability of future generations to meet their own needs*⁴².

The renewed EU strategy promotes improved policy-making based on better regulation and on the principle that sustainable development must be integrated into policy-making at all levels (EU 2006). This calls for improved government cooperation at all levels. The idea of the new strategy is to integrate sustainable development into a broad range of EU policies and implement it effectively through practical actions. The application of sustainable development as a guiding principle in decision-making and activities implies significant institutional changes and reforms. The key objectives of the EU sustainable development strategy comprise (EU 2006b):

- 1) Environmental protection.
- 2) Social equity and cohesion.
- 3) Economic prosperity.

⁴¹ Paragraph 4, Article 174, p. 124.

⁴² Paragraph 1, EU 2006. p. 2.

- 4) Meeting our international responsibilities (active promotion of sustainable development globally and ensuring that EU's internal and external policies are consistent with global sustainable development and its international commitments)⁴³.

The EU (2006b) strategy aims at promoting sustainable development globally and it has a distinctive international and external dimension with a focus on global resource use and international development issues. Therefore, the global development aspects and sustainable development considerations need to be integrated into EU decision-making and especially into EU's external policies. The global dimension of the sustainable development strategy must be integrated into development policies encompassing the needs and responsibilities of developing countries (e.g. aid, development cooperation and international trade). Moreover, the EU promotes better international governance and improved coherence and quality of development aid policies. The policy guiding principles of the EU sustainable development strategy comprise the following (EU 2006b):

- 1) Promotion and protection of fundamental rights.
- 2) Solidarity within and between generations.
- 3) Open and democratic society.
- 4) Involvement of citizens.
- 5) The involvement of businesses and social partners.
- 6) Policy coherence and governance.
- 7) Policy integration.
- 8) Use best available knowledge.
- 9) The precautionary principle.
- 10) Make polluters pay.

The EU (2006b) strategy recognized conservation and management of natural resources as a key challenges with an overall objective to improve management and to avoid overexploitation of natural resources while recognising the value of ecosystem services. In this context, the EU aimed at strengthening SFM through the adoption of an EU Forest Action Plan and the implementation of MCPFE resolutions. Moreover, the key challenges comprised global poverty and sustainable development. The EU aimed at addressing these through global promotion of sustainable development and making sure that its external and internal policies are in accordance with its global commitments (as stated within the main UN instruments in this field) and with global sustainable development. Furthermore, promoted cross cutting policy aspects included promotion of education and training for sustainable development as well as R&D for sustainable development with support for decision-making at all levels. The EU planned to use multiple policy, financing and economic instruments in the implementation of its sustainable development policies (EU 2006b).

A recent review of the EU strategy indicate that the EU has integrated the objective of sustainable development into a broad range of policies that also comprise international efforts, for instance, in the context of climate change challenges. In addition, the EU recognized the need to take deforestation, local indigenous knowledge, soil degradation, water demand in agriculture and climate change adaptation into account in its future policies (EU 2009a). The new EU strategy implies that the economic, social and environmental consequences of all policies should be taken into account in relevant decision-making. The focus areas of the EU strategy comprise sustainable use and conservation of natural resources, environmental protection and addressing global poverty and sustainable development challenges.

⁴³ EU 2006. p.4.

The EU wants to link closely the EU level and the national strategies for sustainable development that aim at sharing of best practices and monitoring of progress. Furthermore, the integrated approaches to sustainable management of natural resources and climate change are closely connected to the sustainable development strategy. The EU strategy promotes coordination between government levels and involvement of all stakeholders in sustainable development activities such as the sharing of good and best practices.

The EU (2002a) promotes a global partnership for sustainable development in line with its strategic objective to promote global sustainable development and to fulfil its international commitments. These promoted actions comprise the promotion of good governance at all levels through improvement of global governance (for more coherent, legitimate, participatory and effective economic, social and environmental governance) and strengthening of public institutions and civil society in developing countries. The EU is committed to the promotion of good governance in all its policies. The EU recognized that the UN should take the leading role in the development of a global governance structure for sustainable development and that co-ordination within the UN and between it and other international institutions should be improved to promote global governance for sustainable development. The coherence of EU policies and governance at all levels should be improved encompassing the assessment of economic, social and environmental impacts of major EU policy proposals as well as the adaptation of policies to the objectives of sustainable development (EU 2002a).

Moreover, the key actions comprise the incorporation of sustainable development into regional and bilateral agreements and promotion of the contribution of international trade to sustainable development with support of and capacity building in developing countries e.g. through education and training based on international and EU best practices and on research on sustainable development. Sustainable management of natural and environmental resources is promoted e.g. through effective implementation of MEAs. In addition, the EU aims at enhancing the quantity, quality, impact and sustainability of development co-operation as well as increasing the financing for sustainable development. The EU needs to demonstrate the policy linkages between good governance, sustainable poverty reduction and the protection of natural resources to developing countries (EU 2002a).

The EU combats illegal logging and trade in illegally harvested wood through the Action Plan for Forest Law Enforcement, Governance and Trade (FLEGT). This framework includes measures which link governance reforms in producer countries with the legal framework of the internal EU market. In addition, it involves binding voluntary partnership agreements with wood-producing countries and regions that promote legal timber exports to Europe and governance reforms in wood producing countries with a focus on increased equity and transparency. Moreover, the EU promotes sustainable management of natural resources such as forests as well as stronger international environmental governance (EU 2003b).

6.2.3 EU development policies

The results of this assessment outlined the main elements of the EU development policies and especially their main implications for capacity building for good forest governance and SFM. The summary results of the EU framework assessment are presented in section 6.2.12 and in Annex 8. The EU has published a policy statement on EU development policy called “The European Consensus on Development” (EU 2006d). This statement comprises the key goals, principles, common values and commitments which the EU and the Member States will implement in their development policies. It recognized that the EU and the Member States are equally committed to

basic principles, fundamental values and the development objectives agreed at the multilateral level (especially within the UN system).

Common values include the rule of law, good governance, justice, peace, solidarity, gender equality and respect for human rights, democracy and fundamental freedoms⁴⁴. The common objectives for development cooperation that guide EU and Member State development cooperation activities in all developing countries include e.g. the following (EU 2006d⁴⁵):

- Eradication of poverty in the context of sustainable development.
- Pursuit of the Millennium Development Goals such as environmental sustainability and development of a global partnership for development.
- Promotion of policy coherences for development while ensuring that other policies support the objectives of development cooperation.
- Continuation of development aid to support poor people in all developing countries.

The EU stated that sustainable development includes good governance, human rights and political, economic, social and environmental aspects. Moreover, the EU assists developing countries in the implementation of MEAs and in the promotion of environmental sustainability. The EU policy statement recognized that the key principle for safeguarding indigenous peoples' rights in development cooperation is to ensure their full participation and free and prior informed consent of the concerned communities. The EU development cooperation is implemented based on a differentiated approach depending on contexts and needs as well as on the principle of concentration which implies focus on limited action areas (2006d).

The EU promotes sustainable management of natural resources encompassing SFM through the implementation of the FLEGT and sustainable agriculture and rural development as well as supports partner efforts (governments and civil society) to incorporate environmental considerations into development and to build capacity for the implementation of MEAs. The EU statement recognized that developing countries are mainly responsible for their own development and that the EU should support these countries in line with their national strategies. The common principles of development cooperation that guide EU and Member State activities in all developing countries comprise the following (EU 2006d):

- 1) *The EU is committed to the principle of ownership of development strategies and programmes by partner countries*⁴⁶.
- 2) *The EU and developing countries share responsibility and accountability for their joint efforts in partnership*⁴⁷.
- 3) *The EU acknowledges the essential oversight role of democratically elected citizens' representatives*⁴⁸.
- 4) *Political dialogue is an important way in which to further development objectives*⁴⁹.
- 5) *The EU supports the broad participation of all stakeholders in countries' development and encourages all parts of society to take part*⁵⁰.
- 6) *Gender equality*⁵¹.
- 7) *Addressing state fragility*⁵².

⁴⁴ Paragraph 13, p. 3.

⁴⁵ Paragraphs 5-10, p. 2.

⁴⁶ Paragraph 14, p. 3.

⁴⁷ Paragraph 15, p. 3.

⁴⁸ Paragraph 16, p. 3.

⁴⁹ Paragraph 17, p. 4.

⁵⁰ Paragraph 18, p. 4.

⁵¹ Paragraph 19, p. 4.

The first principle means that developing countries are responsible for the creation of an enabling environment for the mobilization of their own resources with coherent and effective policies whereas the second principle means that the EU will support partner countries' development, reform and poverty reduction strategies. The third one encourages e.g. the involvement of local authorities and the fourth promotes shared understanding and supportive measures for good governance, human rights, democratic principles and the rule of law. The fifth principle means e.g. that the EU will enhance its support for building capacity among non-state actors to strengthen their role in the development process (EU 2006d).

In addition, the EU will include a strong gender component in all its policies and practices in its relations with developing countries and improve its response to difficult partnerships and fragile states including support for governance reforms, the rule of law, anti-corruption measures, the building of state institutions (to re-establish the principles of ownership and partnership), post-crisis development and for particularly vulnerable countries to increase their capabilities to address environmental degradation, natural disasters, conflicts, climate change and external economic shocks (EU 2006d).

The EU supports the developing countries in the achievement of the Millennium Development Goals (MDGs) through promotion of policy coherence for development and improved development cooperation (priority areas are presented in Table 27). This involves the effective improvement of the coherence of the policies of developed countries comprising also non-aid policies (e.g. for trade, the environment, energy and agriculture). The EU recognized that the improvement of the coherence of policy-making is a multidimensional commitment which needs to be realized within the overall framework of the EU sustainable development strategy (EU 2005a). The EC Treaty (EU 2006a) includes the following provisions on development cooperation:

- *Community policy in the sphere of development cooperation, which shall be complementary to the policies pursued by the Member States, shall foster: 1) the sustainable economic and social development of the developing countries, and more particularly the most disadvantaged among them, the smooth and gradual integration of the developing countries into the world economy and 2) the campaign against poverty in the developing countries*⁵³.
- *Community policy in this area shall contribute to the general objective of developing and consolidating democracy and the rule of law, and to that of respecting human rights and fundamental freedoms*⁵⁴.
- *The Community and the Member States shall comply with the commitments and take account of the objectives they have approved in the context of the United Nations and other competent international organisations*⁵⁵.
- *The Community shall take account of the objectives referred to in Article 177 in the policies that it implements which are likely to affect developing countries*⁵⁶.
- *The Community and the Member States shall coordinate their policies on development cooperation and shall consult each other on their aid programmes, including in international organisations and during international conferences. They may undertake joint action. Member States shall contribute if necessary to the implementation of Community aid programmes*⁵⁷.

⁵² Paragraphs 20-22, p. 4-5.

⁵³ Paragraph 1, Article 177, p. 125.

⁵⁴ Paragraph 2, Article 177, p. 125.

⁵⁵ Paragraph 3, Article 177, p. 125.

⁵⁶ Article 178, p. 126.

⁵⁷ Article 180, p. 126.

Table 27. EU Coherence for Development Commitments.

- 1) Environment: 1) The EU will assist developing countries in the implementation of MEAs and work to ensure that the capacities of developing countries are taken into account during MEA negotiations, 2) the EU initiatives for sustainable development include the EU FLEGT Action Plan (promotion of a licensing scheme to ensure that all timber exports to Europe are lawful and encouragement of reforms in forest harvesting countries) and 3) the EU will promote pro-poor environment-related initiatives and policies.
- 2) Security: 1) The EU aims at creating a secure environment by addressing poverty, environmental degradation and failing economic, social and political structures and 2) the EU will enhance its policies in support of good and effective governance and the prevention of conflict and state fragility (also in difficult partnerships/failing states).
- 3) Agriculture: 1) A positive role of international and EU policies is created through a supportive international environment for agriculture and rural areas in developing countries and 2) improvement of policy coherence for development will cover the sustainable use of natural resources, land use, access to land and rural development in a coherent, interlinked and global way.
- 4) Research and innovation: 1) The EU will assist developing countries in enhancing their domestic capacities in this area.
- 5) Energy: 1) The EU is strongly committed to contribute to the special needs of developing countries by promoting access to sustainable energy sources and 2) the EU will promote institutional support, technical assistance and networking to give the beneficiary countries the capacities to implement their energy choices.
- 6) Trade (e.g. the integration of trade into development strategy).

Source: Adopted from EU 2005a⁵⁸.

The EU is committed to (in accordance with Treaty law) the further promotion of policy coherence for developing countries with a focus on both international and its own policy frameworks. Moreover, the external and internal EU policies have become more interlinked and the developing countries have become more interested in broader EU policies. Consequently, the EU should promote a more strategic, systematic and partnership, oriented approach to policy coherence for development through the establishment of a policy framework to direct other policies and non-ODA financial flows towards development objectives (EU 2009d). The EU commitment to policy coherence for development aims at the promotion of synergies between EU policies by addressing key issues within the priority areas such as the improvement of international environmental governance, impact assessments and new opportunities for developing countries (e.g. CDM, carbon storage and sustainable biofuel production) and through the integration of climate change mitigation and adaptation measures into development policies (EU 2009e).

The EU (2006e) developed a new framework called the financing instrument for development cooperation to promote the effectiveness of its external assistance and to support development cooperation policy (with focus on countries and regions in Latin America, Asia, Central Asia, the Middle East and Southern Africa). The activity areas within this instrument include e.g. the environment and the sustainable management of natural resources (e.g. FLEGT) and the role of non-state actors and local authorities in development (e.g. through capacity building and participation). The Regulation (EC, 1905/2006) established this new instrument with the following provisions about objectives (EU 2006e):

⁵⁸ P. 5.

- *The primary and overarching objective of cooperation under this Regulation shall be the eradication of poverty in partner countries and regions in the context of sustainable development, including pursuit of the Millennium Development Goals (MDGs), as well as the promotion of democracy, good governance and respect for human rights and for the rule of law⁵⁹.*
- *Consistently with this objective, cooperation with partner countries and regions shall: 1) consolidate and support democracy, the rule of law, human rights and fundamental freedoms, good governance, gender equality and related instruments of international law, 2) foster the sustainable development, including political, economic, social and environmental aspect, of partner countries and regions, and more particularly the most disadvantaged among them, 3) encourage their smooth and gradual integration into the world economy, 4) help develop international measures to preserve and improve the quality of the environment and the sustainable management of global natural resources, in order to ensure sustainable development, including addressing climate change and biodiversity loss and 5) strengthen the relationship between the Community and partner countries and regions⁶⁰.*
- *Community cooperation under this Regulation shall comply with the commitments and objectives in the field of development cooperation that the Community has approved in the context of the United Nations (UN) and other competent international organisations in the field of development cooperation⁶¹.*

6.2.4 EU governance framework

The results of this assessment outlined the main elements of the EU governance framework and especially their main implications for capacity building for good forest governance and SFM. The summary results of the EU framework assessment are presented in section 6.2.12 and in Annex 8. The EU contributes to global governance in many ways and through many institutions and instruments. Moreover, the EU promotes global governance as a means of achieving the main objectives of sustainable development (EU 2001b). Good governance is essential for effective development assistance and co-operation as well as for the achievement of key policy objectives. The EU aims at applying the principles of good governance to its global responsibilities: openness, participation, accountability, effectiveness and coherence.

The EU development policies highlight the importance of good governance and the rule of law, also emphasizing institutional capacity-building for these ends (EU 2003c). In addition the EU promotes refocused policies and institutions and policy coherence (e.g. between levels of governance) and long-term objectives as well as broader solutions such as the application of both binding and non-binding tools within a commonly agreed framework (EU 2001b). Impact assessments should be applied to support decision-making and the development of legislative initiatives in line with the sustainable development strategy (EU 2002b).

The EU governance framework has a strong emphasis on external relations and the improvement of governance outside of the Union. The global, regional and national levels of governance are connected in many ways. The key development issues related to global and EU governance comprise promotion of democracy, transparency and openness as well as improvement of institutions and their capability to address new challenges. Moving towards the achievement of good governance is a process, and the structures and the quality of governance play a major role in overall international development that encompasses economic, social and environmental aspects.

⁵⁹ Paragraph 1, Article 2, Objectives, p. 44.

⁶⁰ Paragraph 1, Article 2, Objectives, p. 44.

⁶¹ Paragraph 2, Article 2, Objectives, p. 44.

Furthermore, Governance improvements comprise synergies and coherence between different policies and instruments within the EU framework (EU 2003c). The main governance development and improvement issues in the context of EU's external relations include (EU 2001b, c):

- Global responsibility including consideration of the impacts of 1) EU policies on third country partners and within the Union and 2) policy innovations.
- Participation in global policy development to support decision-making and increased application of non-hierarchical governance, soft law and benchmarking in addition to hard international public law.
- Promotion of 1) coherence between existing international organizations and 2) the effectiveness and enforcement powers of international institutions.
- Improvement of the dialogue with governmental and non-governmental actors of third countries when developing policy proposals with an international dimension.
- Design of institutions, policies and regulation in line with the principles of good governance

The EU has recognized the importance of governance in partner countries for the achievement of development policy goals also considering the need for governance reforms to promote sustainable development. Moreover, sustainable natural resources management requires appropriate governance. The EU promotes good governance including sustainable management of global resources through its Development Cooperation Instruments. Governance is a major element in the cooperation strategies between the EU and the partner countries in Africa. In addition, Africa and the EU have developed a partnership on democratic governance and human rights within the Joint Africa-EU Strategy (See Chapter 6.2.5). The EU Environment Action Programme included the following provisions about environmental policy making (EU 2002c):

- *Development of improved mechanisms and of general rules and principles of good governance within which stakeholders are widely and extensively consulted at all stages so as to facilitate the most effective choices for the best results for the environment and sustainable development in regard to the measures to be proposed⁶².*

The EU approach to governance includes political, economic, environmental, cultural and social aspects, and all levels of governance (local, national and international) are relevant. Moreover, the EU recognizes that all governance aspects are interrelated and must be addressed in a holistic, balanced and comprehensive way. Sustainable management of natural resources is among the key governance issues (EU 2009b). The EU aims at promoting democracy-building through its external relations and various instruments. This comprises cooperation with international and regional organisations and country-driven reform programmes as well as capacity building and involvement of various actors in long-term processes (EU 2009c). The roles of the Governance Initiative for ACP countries and Africa and of the Joint Africa-EU Strategy and Action Plan are significant within the EU policy approach to support democratic governance (EU 2009b).

The EU promotes good and democratic governance and related capacity building within its development cooperation actions, globally in line with international and EU development policy objectives. The EU approach is based on a broad definition of governance which recognizes it as a long-term process based on universal objectives and principles. In addition, the EU approach is dialogue-based and it comprises ownership of reforms by partner countries as well as integration of the concept of democratic governance into every sectoral programme and harmonization of approaches within the EU (i.e. for EU level governance) and with other international actors. The EU

⁶² Paragraphs a/c/d/e, Article 10, p. 14.

supports capacity building for good governance within the African Union, regional and national institutions and partner countries (EU 2006c).

Furthermore, democratic institution building is focused on both top-down and bottom-up approaches that also cover local governments and education activities. The EU development policy supports democracy within a wider democratic governance perspective that promotes the engagement of national and local governments and stakeholders and recognizes the importance of the rule of law, public administration reform, decentralization, local governance and civil society empowerment. The African Union is a key partner of the EU on democracy and human rights issues (EU 2009c).

6.2.5 Africa-EU strategic partnership

The results of this assessment outlined the main elements of the Africa-EU strategic partnership and especially their main implications for capacity building for good forest governance and SFM. The summary results of the EU framework assessment are presented in section 6.2.12 and in the Annex 8. The Africa-EU strategic partnership (EU 2007c) is a joint Africa-EU strategy and it provides an overall long-term framework for EU-Africa partnership and integrated cooperation. In general, the EU promotes the achievement of the MDGs in Africa and both partners aim at enhancing sustainable development.

This new partnership aimed at improving the coherence and effectiveness of existing agreements, policies and instruments. The principles recognized by this partnership included joint responsibility, co-management, the rule of law, democratic principles, respect for human rights, the right to development, respect for international law and agreements, and a long-term approach. The main objectives of the strategic partnership are (EU 2007c):

- 1) *To reinforce and elevate the Africa-EU political partnership to address issues of common concern*⁶³.
- 2) *To strengthen and promote peace, security, democratic governance and human rights, fundamental freedoms, gender equality, sustainable economic development, including industrialization, and regional and continental integration in Africa, and to ensure that all the Millennium Development Goals (MDGs) are met in all African countries by the year of 2015*⁶⁴.
- 3) *To jointly promote and sustain a system of effective multilateralism, with strong, representative and legitimate institutions, and the reform of the United Nations (UN) system and of other key international institutions, and to address global challenges and common concerns*⁶⁵.
- 4) *To facilitate and promote a broad-based and wide-ranging people-centred partnership, Africa and the EU will empower non-state actors and create conditions to enable them to play an active role in development, democracy building, conflict prevention and post-conflict reconstruction processes*⁶⁶.

The objectives of the long-term strategic partnership provide a comprehensive framework for specific strategies in the following areas: peace and security, governance and human rights, trade and regional integration and key development issues. The role of both governance and sustainable development is essential within this framework for global governance, governance reforms and the

⁶³ Paragraph 1, Objectives, p. 2.

⁶⁴ Paragraph 2, Objectives, p. 2.

⁶⁵ Paragraph 3, Objectives, p. 2-3.

⁶⁶ Paragraph 4, Objectives, p. 3.

promotion of democratic governance and human rights. The following Africa-EU partnerships were developed based on the selected priority areas within the Africa-EU strategic partnership (EU 2007d):

- Peace and security (e.g. addressing conflict resolution and post-conflict reconstruction to promote progress and sustainable development).
- Democratic governance and human rights (e.g. capacity building for global and local governance and natural resources management and institutional development to promote sustainable development and cooperation between partners).
- Trade, regional integration and infrastructure (e.g. capacity building for rules, standards and quality control to access international and regional markets).
- The Millennium Development Goals (e.g. improvement of education quality and management).
- Energy (e.g. sustainable renewable energy, improved energy efficiency and management of energy resources).
- Climate change (e.g. sustainable natural resources and land management, monitoring deforestation, reduced emissions from deforestation, integration of land management into national development strategies and enhanced environmental sustainability within the framework of regional and international environmental agreements).
- Migration, mobility and employment (e.g. poverty alleviation).
- Science, information society and space (e.g. science and technology capacity building, knowledge production and technological innovation).

Moreover, the cooperation areas within this partnership include institutional development, knowledge-sharing, the exchange of best practices, awareness raising, capacity building and technical assistance. Africa and the EU committed themselves into enhanced international cooperation, for instance, through FLEGT to address illegal trade and to promote transparent and equitable natural resources management. The partnership recognized that the both Africa and the EU aim at addressing environmental sustainability and climate change (EU 2007c).

The ACP-EC Partnership Agreement (EU 2006f) known as the Cotonou agreement established a comprehensive partnership between the members of the African, Caribbean and Pacific group of states and the European Community and its Member States. The preamble⁶⁷ recognized the commitment to sustainable development, poverty reduction and the integration of the ACP countries into the world economy. Moreover, the partners aim at implementing a comprehensive and integrated approach for a strengthened partnership based on political dialogue, development cooperation and economic and trade relations⁶⁸. The provisions about the objectives of the partnership include the following (EU 2006f):

- 1) *To promote and expedite the economic, cultural and social development of the ACP States, with a view to contributing to peace and security and to promoting a stable and democratic political environment*⁶⁹.
- 2) *The partnership shall be centred on the objective of reducing and eventually eradicating poverty consistent with the objectives of sustainable development and the gradual integration of the ACP countries into the world economy*⁷⁰.
- 3) *These objectives and the Parties's international commitments shall inform all development strategies and shall be tackled through an integrated approach taking account at the same time of the political, economic, social, cultural and environmental aspects of development.*

⁶⁷ Paragraph 2, p. 3.

⁶⁸ Paragraph 4, p. 3.

⁶⁹ Paragraph 1, Article 1, Chapter 1. p. 6.

⁷⁰ Paragraph 2, Article 1, Chapter 1. p. 6.

The partnership shall provide a coherent support framework for the development strategies adopted by each ACP State⁷¹.

- 4) The principles of sustainable management of natural resources and the environment shall be applied and integrated at every level of the partnership⁷².*
- 5) The central objective of ACP-EC cooperation is poverty reduction and ultimately its eradication; sustainable development; and progressive integration of the ACP countries into the world economy⁷³.*

The fundamental principles⁷⁴ of the partnership include equality of the partners, ownership of the development strategies, participation (integration of all sections of society), dialogue, differentiation, regionalisation and fulfilment of mutual obligations. The partnership aims at promoting regional and sub-regional integration processes and capacity building to support development actors as well as to improve institutional frameworks. Moreover, the partners recognized the complementary role and potential contributions of non-state actors and local decentralized authorities to the development process⁷⁵. The partners aim at encouraging ownership of the development strategies by the countries and the ACP-EC cooperation strategies shall aim at (EU 2006f):

- Promoting institutional reforms and development, strengthening the institutions necessary for the consolidation of democracy, good governance and for efficient and competitive market economies; and building capacity for development and partnership⁷⁶.*
- Promoting environmental sustainability, regeneration and best practices, and the preservation of natural resource base⁷⁷.*

Sustainable development requires good governance, the rule of law, democratic principles and transparent and accountable management of human, natural, economic and financial resources⁷⁸. The promotion of traditional knowledge⁷⁹ is included in the partnership in the context of sustainable policy and institutional reforms. The cooperation on environmental protection and sustainable utilisation and management of natural resources⁸⁰ shall aim at (EU 2006f):

- 1) Mainstreaming environmental sustainability into all aspects of development cooperation and support programmes and projects implemented by the various actors⁸¹.*
- 2) Building and/or strengthening the scientific and technical human and institutional capacity for environmental management for all environmental stakeholders⁸².*
- 3) Supporting specific measures and schemes aimed at addressing critical sustainable management issues and also relating to current and future regional and international commitments concerning mineral and natural resources such as tropical forests, water resources, wildlife, soils, biodiversity, protection of fragile ecosystems, renewable energy sources and sustainable rural and urban development, desertification, drought and deforestation and promotion of sustainable tourism⁸³.*

⁷¹ Paragraph 3, Article 1, Chapter 1. p. 6.

⁷² Paragraph 4, Article 1, Chapter 1. p. 6.

⁷³ Paragraph 1, Article 19, Chapter 1, p. 20.

⁷⁴ Paragraph 2, Article 2, p. 6.

⁷⁵ Paragraph 1, Article 4, Chapter 2, p. 7.

⁷⁶ Paragraph 1d, Article 19, p. 20.

⁷⁷ Paragraph 1e, Article 19, p. 20.

⁷⁸ Paragraph 3, Article 9, p. 9.

⁷⁹ Paragraph 1, Article 23, p. 22.

⁸⁰ Article 32, p. 26-27.

⁸¹ Paragraph 1a, Article 32, p. 26.

⁸² Paragraph 1b, Article 32, p. 26.

⁸³ Paragraph 1c, Article 32, p. 26-27.

- 4) *Cooperation shall also take account of the worsening drought and desertification problems especially of least developed and land locked countries and institutional development and capacity building*⁸⁴.

Capacity building⁸⁵ is an essential element of this partnership and it encompasses the involvement of community organisations and non-profit non-governmental organisations in the design, implementation and evaluation of development strategies and programmes. The partnership aims at promoting institutional development and capacity building⁸⁶ through support of the ACP State's efforts to develop and strengthen structures, institutions and procedures to ensure transparent and accountable governance and administration in all public institutions⁸⁷ such as political, administrative, economic and financial decentralization⁸⁸. Moreover, the partnership is based on the following provisions (EU 2006f):

- *The Parties reaffirm their commitment to promoting the development of international trade in such a way as to ensure sustainable and sound management of the environment, in accordance with the international conventions and undertakings in this area and with due regard to their respective level of development*⁸⁹.
- *Bearing in mind the Rio Principles and with a view to reinforcing the mutual supportiveness of trade and environment, the Parties agree to enhance their cooperation in this field. Cooperation shall in particular aim at the establishment of coherent national, regional and international policies, reinforcement of quality controls of goods and services related to the environment and the improvement of environment friendly production methods in relevant sectors*⁹⁰.
- *The non-State actors and local decentralised actors, shall, where appropriate: 1) be informed and involved in consultation on cooperation policies and strategies, on priorities for cooperation especially in areas that concern or directly affect them, and on the political dialogue, 2) be provided with financial resources, under the conditions laid down in this Agreement in order to support local development processes, 3) be involved in the implementation of cooperation projects and programmes in areas that concern them or where these actors have a comparative advantage, 4) be provided with capacity building support in critical areas in order to reinforce the capabilities of these actors, particularly as regards organisation and representation, and the establishment of consultation mechanisms including channels of communication and dialogue, and to promote strategic alliances*⁹¹.

6.2.6 EU Forest policies

The results of this assessment outlined the main elements of the EU forest policies and especially their main implications for capacity building for good forest governance and SFM. The results of the EU forest policies assessment (including FLEGT and deforestation) on capacity building for good forest governance are presented in Table 28; and the results about SFM and good governance are shown in Annex 7. The results suggest that the main development priorities comprise capacity building for good governance for SFM, forest protection and forest law enforcement as well as SFM for climate change adaptation and mitigation and overall sustainable rural development. Moreover,

⁸⁴ Paragraphs 2b and 2c, Article 32, p. 27.

⁸⁵ Article 7, p. 8.

⁸⁶ Article 33, p. 27.

⁸⁷ Paragraph 1d, Article 33, p. 27.

⁸⁸ Paragraph 3f, Article 33, p. 27.

⁸⁹ Paragraph 1, Article 49, p. 35.

⁹⁰ Paragraph 2, Article 49, p. 35.

⁹¹ Paragraphs 2-5, Article 4, Chapter 2, p. 7.

the priorities include issues such as the implementation of FLEGT with voluntary partnerships between wood-producing countries to address illegal logging and related international trade through improvement and reform of forest governance and overall transparency in the forest sector.

The EU forestry strategy (EU 1998) identified SFM as its main element and highlighted the multifunctional role of forests and their social, economic, environmental, ecological and cultural functions. The EU promotes the development of the EU action plan for SFM as the main instrument to address the changing overall policy context of forest issues that also covers the multiple functions and benefits of forests. Moreover, the EU considers it a priority to support international processes for the achievement of SFM globally. The importance of good governance for the protection and sustainable management of forests as well as of NFPs and cross-sectoral cooperation, coordination and coherence for the achievement of SFM is fully recognized (EU 2005b).

The EU Forest Action Plan (EU 2006g) provides a framework for forest-related actions such as regional coordination. The overall objective of this action plan is to support and enhance SFM and the multifunctional role of forests. Moreover, the EU recognized the role of forests (providing carbon sinks and environmentally friendly raw material) and forest management in the context of the UNFCCC and its Kyoto Protocol for climate change mitigation and adaptation obligations. A stronger role of the EU within international forest-related processes as well as promotion of the use of wood and other forest products from sustainably managed forests and improved policy coordination and information exchange were among the key actions. The action plan is based on the following principles (EU 2006g)⁹²:

- 1) *National forest programmes as a suitable framework for implementing international forest-related commitments.*
- 2) *The increasing importance of global and cross-sectoral issues in forest policy, calling for improved coherence and coordination.*
- 3) *The need to enhance the competitiveness of the EU forest sector and good governance of EU forests.*
- 4) *Respect for the principle of subsidiarity.*

The EU recognizes the interaction and inter-linkages between global, regional and national forest policy development processes as well as the essential role of international agreements and commitments. The policy for sustainable development and its cross-sectoral coherence are closely connected to forest policies, and the EU promotes the integration of sustainable development into international trade. Furthermore, a development cooperation policy that supports the implementation of international commitments in non-EU countries for creating new development and economic instruments is highly relevant in the context of SFM (EU 2006h).

The EU Action Plan for Forest Law Enforcement, Governance and Trade (FLEGT) is a major instrument in this field and it aims especially at capacity building in FLEGT partner countries. In addition, deforestation is a major theme within the UNFCCC, and forests can contribute to mitigation efforts. The EU recognizes the importance of good governance with a coherent framework for public policies and related coordinated objectives, strategies and instruments to address complex land use challenges (EU 2006h).

⁹² Point 2, page 2, COM(2006) 302 final.

Table 28. Implications of the EU forest policies for good forest governance.

Good forest governance element	Development priorities
Multiple actors, levels and networks	Multifunctional role of forests including their social, economic, environmental, ecological and cultural functions Active participation in all international processes related to the forest sector
NFPs, policies and laws (SFM)	Development of NFPs as frameworks for the implementation of international forest-related commitments and cross-sectoral coordination Development of appropriate legal, governance and technical systems to verify the legality of wood production in accordance with national laws (wood producing partner countries) encompassing 1) consistent, clear and enforceable forest laws for SFM, 2) technical and administrative logging monitoring systems and 3) voluntary licensing of operations and exports
Standards and principles (SFM)	Wood, timber, non-wood and other forest products from legal sources and sustainably managed forests Application of the principles of sustainability Credible, transparent, cost-efficient and open access and non-discriminatory voluntary and market-based forest certification schemes consistent with the internationally agreed principles of SFM Implementation of innovative, integrated and effective approaches such as 1) capacity building for good governance and forest law enforcement, 2) public-private partnerships, 3) public procurement policies and practices, 4) information sharing and addressing underlying causes, 5) wood tracking systems and best practices within supply chain management and 6) chain of custody Voluntary partnerships with wood-producing countries to address illegal logging and related international trade for the improvement and reform of forest governance and overall transparency in the forest sector (FLEGT) Private sector initiatives for good practice in forestry in line with the principles of corporate social responsibility with high standards in voluntary codes of conduct; sourcing of legal timber, transparent activities and independent monitoring Improved due diligence for clearly defined, legal and sustainable long-term timber supply
Decision-making and institutions	Good governance for SFM, forest protection and forest law enforcement Better integration of forests and forest products into sectoral policies Specific approaches and actions for the different types of forest recognising the wide range of natural, social, economic and cultural conditions of the forests Implementation of SFM through secure property and land tenure rights Safeguards and risk management practices for financial institutions and investments in conformity with legislation, environmental and social impact assessments and codes of practice for forest sector projects SFM for climate change adaptation and mitigation: 1) carbon sinks and reservoirs, 2) reduced emissions from deforestation and forest degradation and 3) use of biomass and wood-based products
Partnerships and participation (including TFRK)	Development co-operation with a focus on 1) equitable and just solutions to the illegal logging problem that do not have an adverse impact on poor people, 2) helping partner countries to build systems to verify that the timber has been harvested legally (including transparent forest sector information), and 3) capacity building for partner country governments and civil society (such as the implementation of governance and forest law and policy reforms) and 4) promoting policy reform

The main commitment within FOREST EUROPE (The Ministerial Conference on the Protection of Forests in Europe) is on SFM. This pan-European policy process promotes SFM and its effective implementation regionally, but also internationally and nationally for all dimensions of SFM. The tools for implementation include NFPs and C&I for SFM. The latest developments suggest consideration of possible options for a legally binding agreement on forests in Europe (MCPFE 2009) and focus of the role of forests and SFM in addressing climate change challenges. The current understanding of SFM within the EU framework is based on the following definition made by the Ministerial Conference for the Protection of Forests in Europe (MCPFE 1993):

Sustainable management means the stewardship and use of forests and forest lands in a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity, vitality and their potential to fulfil, now and in the future, relevant ecological, economic and social functions, at local, national, and global levels, and that does not cause damage to other ecosystems⁹³.

The MCPFE process has recognized from the very beginning that sustainable and multi-purpose forest management that covers all its ecological, economic and social dimensions should be promoted as a long-term and future oriented approach (MCPFE 1990). Moreover, this process aims at implementing the global commitments on the management, conservation and sustainable development of forests. Forests policies and SFM influence and are influenced by cross-sectoral issues within the overall context of sustainable development. This implies that partnerships, co-ordination and balancing of economic, ecological, social and cultural roles of forests are needed. The main global challenges recognized by the MCPFE (2007; 2003) comprise:

- Regional contribution to the achievement of the Four Global Objectives on Forests agreed by the UNFF and other relevant global commitments.
- The promotion of 1) SFM at all levels, 2) good governance and forest law enforcement, 3) combating illegal logging and related trade in forest products, 4) SFM within the UNFCCC and its Kyoto Protocol and 5) maintenance, conservation, restoration and enhancement of the biological diversity of forests.
- Support for the FLEGT processes.

The MCPFE aims at providing an European contribution to the international forest policy process. The role of SFM, forest products and sustainably produced wood as renewable raw material is significant in climate change mitigation and adaptation measures. Furthermore, SFM contributes significantly to environmental, economic, social and cultural dimensions of sustainable development and especially to the achievement of internationally agreed development priorities. The implementation of SFM requires secure property and land tenure rights. Other development priorities include the promotion of NFPs as a means for the implementation of forest-related international commitments and cross-sectoral coordination; guaranteeing that timber and timber products are derived from legal and sustainable sources; and the application of the principles of sustainability (MCPFE 2007).

Combating illegal timber trade and logging is a major development priority that requires implementation of innovative, integrated and effective approaches such as capacity building for good governance and forest law enforcement, public-private partnerships, new public procurement policies, information sharing and addressing underlying causes, wood tracking systems and best practices within supply chain management and the chain of custody. It also necessitates consideration of illegal logging in the context of SFM and of harmonized approaches to legality and sustainability requirements as well as international traceability and licensing schemes based on

⁹³ Paragraph D, Resolution H1, MCPFE 1993.

common principles and requirements. The FLEGT approach promotes forest sector governance reforms and voluntary partnerships with wood-producing countries, so as to address the complex problems of illegal logging and related international trade. It is thus closely connected to global sustainable development policies (MCPFE 2007).

6.2.7 Deforestation and FLEGT

The results of this assessment outlined the main elements of the EU deforestation and FLEGT policies and especially their main implications for capacity building for good forest governance and SFM. The results on the EU forest policy assessment (including FLEGT and deforestation) related to capacity building for good forest governance are presented in Table 28 in the previous section, whereas the results on SFM and good governance are shown in Annex 7.

The EU and its Member States have promoted SFM and forest conservation at the global level in many international processes. In addition, the EU has recognized combating deforestation and forest degradation as a major intervention and action area especially in the context of addressing climate change challenges within the UNFCCC framework. The EU recognized that the main underlying cause of deforestation is ineffective governance jointly with poorly implemented land-use policies and inappropriate land tenure regimes.

The EU addresses deforestation globally through multiple approaches such as capacity building for improved forest governance and institutions at local and national levels, proper valuation of products and services provided by forests, consumer responsibility, promotion of a global solution, and policy design and implementation based on high-quality information⁹⁴. Moreover, the EU promotes SFM in many ways such as the FLEGT Action Plan, international processes, sustainability criteria as well as forest certification, eco-labelling and public procurement policies that favour sustainable and legally harvested timber (EU 2008b).

The EU has recognized addressing illegal logging and related trade as a major intervention and action area within the EU development framework. The Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan is the main instrument and response of the EU to address illegal logging and related trade in line with sustainable development. The Action Plan promotes good forest governance as well as governance reforms, capacity building, and SFM. The FLEGT Action Plan comprised the following main elements (EU 2003d):

- Voluntary Partnership Agreements with timber-producing countries for improving forest governance and the overall transparency in the forest sector.
- Implementation of public procurement policies and practices (demand-side measures) in the EU Member States that give preference to legally harvested timber and timber products.
- Development co-operation with a focus on 1) equitable and just solutions to the illegal logging problem that do not have an adverse impact on poor people, 2) helping partner countries to build systems to verify that timber has been harvested legally (with transparent forest sector information), and 3) capacity building for partner country governments and civil society (with a focus on the implementation of governance and forest law and policy reforms) and 4) promoting policy reform.
- Long-term process of dialogue with wood producing and wood-consuming countries to extend international collaboration and to develop a multilateral framework for actions.
- Encouragement of private sector initiatives for good practice in the forest sector (in line with the principles of corporate social responsibility) and high standards in voluntary codes of

⁹⁴ p. 6-7.

conduct to source legal timber and to support transparent activities and independent monitoring.

- Development of safeguard and risk management measures (e.g. improved due diligence for clearly defined, legal and sustainable long-term timber supply) within finance and investment institutions and for related activities that ensure conformity with legislation, environmental and social impact assessments and codes of practice for forest sector projects.

Partnership agreements comprise a commitment of the partner countries to develop appropriate legal, governance and technical systems to verify that wood production is legal according to national laws. This involves making sure that forest laws are consistent, clear and enforceable and contribute to supporting SFM and technical and administrative logging monitoring systems as well as voluntary licensing of operations and exports (EU 2003d).

6.2.8 EU natural resources policies

The results of this assessment outlined the main elements of the EU natural resources policies and especially their main implications for capacity building for good forest governance and SFM. The summary results of the EU framework assessment are presented in section 6.2.12 and in Annex 8. The EU Thematic Strategy on the Sustainable Use of Natural Resources (EU 2005c) is a long-term strategy that integrates the environmental impacts of using natural resources (with such external dimensions as impacts on developing countries) into policy-making in line with sustainable development. The overall objective is to reduce the negative environmental impacts generated by the use of natural resources in a growing economy. Moreover, this strategy promotes informed decision-making, the integration of environmental concerns into other policies and the application of criteria and resource-specific criteria to measure progress towards more sustainable management practices jointly with impact assessments.

The promoted actions within this strategy comprise improvement of the understanding and knowledge about global and regional resource use and awareness raising for negative environmental impacts of resource use among stakeholders and citizens. The application of life-cycle thinking across various policy fields through existing and emerging policies is also widely promoted in line with the need for more integrated and coordinated policy approaches (EU 2005c).

The roles of strategic environmental assessment (SEA) and environmental impact assessment (EIA) are significant within the EU framework for natural resources, rural development and land and environmental policies. The EU law requires that the environmental implications of decisions are taken into account before those decisions are made and this means that environmental assessments will have to be applied to various development projects. The main environmental assessment approaches are the SEA (for policies, programmes and plans) and the EIA (for specific projects). The Directive on the assessment of the effects of certain public and private projects on the environment (85/337/EEC) stipulates that EIA must be applied to projects (e.g. afforestation and deforestation for the purposes of conversion to another type of land use) which are likely to have significant effects on the environment and especially on human beings, fauna, flora, the landscape, soil, water, air, climate, material assets and cultural heritage as well as their interactions. The need for an assessment must be based on case-by-case examination by the Member States (EU 1985).

Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment promotes sustainable development, provides a high level of protection of the environment and contributes to the integration of environmental considerations into the preparation and adoption of plans and programmes. This directive stipulates that an environmental assessment

of certain plans and programmes which are likely to have significant effects on the environment must be carried out. This assessment produces an environmental report which must be taken into account in relevant decision-making jointly with the results of possible transboundary consultations. All forestry, agriculture, rural development or land use plans and programmes which set a framework for future development require an assessment (EU 2001d). Moreover, EU law states that public participation must be arranged in the context of preparation and modification or review of plans or programmes in accordance with the international obligations made by the EU (EU 2003e).

6.2.9 EU environment policy

The results of this assessment outlined the main elements of the EU environment policy and especially their main implications for capacity building for good forest governance and SFM. The summary results of the EU framework assessment are presented in section 6.2.12 and in Annex 8. The Sixth Environment Action Programme of the European Community 2002-2012 provides a framework for the EU environmental policy and lists specific priority areas and actions (EU 2002c). The EU strategic approach to environmental objectives with a focus on new legislation and improvement of existing legislation as well as encouragement of more effective implementation and enforcement of EU legislation on the environment⁹⁵. The preamble comprises the following statements (EU 2002c):

- *The Programme aims at a high level of protection of the environment and human health and at a general improvement in the environment and quality of life, indicates priorities for the environmental dimension of the Sustainable Development Strategy and should be taken into account when bringing forward actions under the Strategy*⁹⁶.
- *The Programme establishes environmental priorities for a Community response focusing in particular on climate change, nature and biodiversity, environment and health and quality of life, and natural resources and wastes*⁹⁷.

This programme clearly highlights the close linkages between sustainable development and environmental strategies. Moreover, this means that environmental and development issues should be treated in an integrated and holistic manner within the same overall framework. The Action Programme includes the following provisions related to scope, principles and aims (EU 2002c):

- *The Programme should promote the integration of environmental concerns in all Community policies and contribute to the achievement of sustainable development throughout the current and future enlarged Community. The Programme furthermore provides for continuous efforts to achieve environmental objectives and targets already established by the Community*⁹⁸.
- *The objectives respond to the key environmental priorities to be met by the Community in the following areas: 1) climate change, 2) nature and biodiversity, 3) environment and health and quality of life and 4) natural resources and wastes*⁹⁹.
- *The Programme shall form a basis for the environmental dimension of the European Sustainable Development Strategy and contribute to the integration of environmental concerns into all Community policies, inter alia by setting out environmental priorities for the Strategy*¹⁰⁰.

⁹⁵ Article 3, p. 4-6.

⁹⁶ Paragraph 7, p. 1.

⁹⁷ Paragraph 9, p. 1.

⁹⁸ Paragraph 1, Article 1, p. 3.

⁹⁹ Paragraph 4, Article 1, p. 3.

¹⁰⁰ Paragraph 1, Article 2, p. 3.

- *The Programme shall promote the full integration of environmental protection requirements into all Community policies and actions by establishing environmental objectives and, where appropriate, targets and timetables to be taken into account in relevant policy areas¹⁰¹.*
- *Furthermore, measures proposed and adopted in favour of the environment should be coherent with the objectives of the economic and social dimensions of sustainable development and vice versa¹⁰².*

The EU is very active internationally as far as its own and Member State's development policies and various activities within international organizations and development processes are concerned. The Action Programme promotes international action with effective compliance with and enforcement of all MEAs. The EU Environment Action Programme listed the following provisions related to the objectives and priority areas for action on international issues (EU 2002c):

- *Objectives: 1) the pursuit of ambitious environmental policies at the international level paying particular attention to the carrying capacity of the global environment, 2) the further promotion of sustainable consumption and production patterns at the international level and 3) making progress to ensure that trade and environment policies and measures are mutually supportive¹⁰³.*
- *These objectives shall be pursued by means of the following priority actions: 1) integrating environment protection requirements into all the Community's external policies, including trade and development cooperation, in order to achieve sustainable development by inter alia the elaboration of guidelines, 2) work towards strengthening international environmental governance by the gradual reinforcement of the multilateral cooperation and the institutional framework including resources, 3) aiming for swift ratification, effective compliance and enforcement of international conventions and agreements relating to the environment where the Community is a Party and 4) promoting sustainable environmental practices in foreign investment and export credits¹⁰⁴.*

Forest development and environmental protection issues are usually closely connected. Article 5 of the EU Environment Action Programme on the objectives and priority areas for action on nature and biodiversity included the following elements to be incorporated in the implementation and further development of strategies and measures on forests in line with the EU forest strategy (EU 2002c¹⁰⁵):

- *Improving existing Community measures which protect forests and implementing sustainable forest management, inter alia, through national forest programmes, in connection with rural development plans, with increased emphasis on the monitoring of the multiple roles of forests in line with recommendations adopted by the Ministerial Conference on the Protection of Forests in Europe and the United Nations Forum on Forests and the Convention on Biodiversity and other fora.*
- *Encouraging the effective coordination between all policy sectors involved in forestry, including the private sector, as well as the coordination of all stakeholders involved in forestry issues.*
- *Stimulating the increase of the market share for sustainably produced wood, inter alia, through encouraging certification for sustainable forest management and encouraging labelling of related products.*

¹⁰¹ Paragraph 4, Article 2, p. 4.

¹⁰² Paragraph 4, Article 2, p. 4.

¹⁰³ Paragraph 1, Article 9, p. 13.

¹⁰⁴ Paragraph 2, Article 9, p. 14.

¹⁰⁵ Paragraph 2h, Article 6, p. 9.

- *Continuing the active participation of the Community and of Member States in the implementation of global and regional resolutions and in discussions and negotiations on forest-related issues.*
- *Examining the possibilities to take active measures to prevent and combat trade of illegally harvested wood.*
- *Encouraging consideration of climate change effects in forestry.*

6.2.10 EU climate change policies

The results of this assessment outlined the main elements of the EU climate change policies and especially their main implications for capacity building for good forest governance and SFM. The summary results of the EU framework assessment are presented in section 6.2.12 and in Annex 8. The EU (2007e) aims at promoting effective action on climate change that includes reversing emissions from deforestation and promotion of sustainable and efficient forest policy to enhance the contribution of forests to the overall reduction of emissions. Measures to address deforestation comprise effective international and domestic forest policies jointly with economic incentives as well as the establishment of large-scale pilot schemes to examine effective approaches that combine international support and national action. Furthermore, the EU recognized the need for increased international research and technology cooperation encompassing developing countries and activities such as development of appropriate adaptation and mitigation strategies and assessment of local impacts of climate change (EU 2007e).

The future EU climate change strategy needs to encompass broader participation and more policy areas for international actions as well as effective adaptation policies with support for the adaptation efforts of the poorest and worst-affected countries. In addition, more focus is needed on innovation and on the use of market based and flexible mechanisms. Other development priorities comprise effective implementation of agreed policies and increased public awareness as well as more and better focused research and stronger co-operation with third countries on technology transfer and R&D cooperation (EU 2005d). The EU Environment Action Programme comprised the following provisions on the objectives and priority areas for action on tackling climate change (EU 2002c):

- *In addition to the mitigation of climate change, the Community should prepare for measures aimed at adaptation to the consequences of climate change, by: 1) reviewing Community policies, in particular those relevant to climate change, so that adaptation is addressed adequately in investment decisions and 2) encouraging regional climate modelling and assessments both to prepare regional adaptation measures such as water resources management, conservation of biodiversity, desertification and flooding prevention and to support awareness raising among citizens and business¹⁰⁶.*
- *Combating climate change will form an integral part of the European Union's external relations policies and will constitute one of the priorities in its sustainable development policy. This will require concerted and coordinated efforts on the part of the Community and its Member States with a view to: 1) capacity-building to assist developing countries and countries with economies in transition for example through encouraging projects in connection with the Clean Development Mechanism (CDM) in the Kyoto Protocol and joint implementation, 2) responding to identified technology-transfer needs and 3) assisting with the challenge of adapting to climate change in the countries concerned¹⁰⁷.*

¹⁰⁶ Paragraph 3, Article 5, p. 8.

¹⁰⁷ Paragraph 5, Article 5, p. 8.

The Africa-EU Declaration on Climate Change (EU 2008a) stated that the priority action areas need to be implemented in line with a sustainable development approach that ensures reconciliation of economic, social, human and environmental aspects. The areas encompass the reduction of deforestation and forest degradation as well as sustainable management of firewood supply and capacity building for the implementation of MEAs. Moreover, priority areas comprised investment and financing in support of adaptation and mitigation initiatives and the development of renewable energy (e.g. through SFM) as well as addressing desertification, land degradation and water resources management (EU 2008a).

6.2.11 EU rural development policies

The results of this assessment outlined the main elements of the EU rural development policies and especially their main implications for capacity building for good forest governance and SFM. The summary results of the EU framework assessment are presented in section 6.2.12 and in Annex 8. The EU (2002d) policy on rural development in developing countries aims at promoting the sustainable use and protection of natural resources as well as at reducing rural poverty and increasing the efforts for education and training. Moreover, policy goals comprise capacity building for more effective, accountable, decentralized and participatory institutions and for risk management.

The EU recognized that addressing environmental degradation and degradation of natural resources is essential in the context of rural development. In addition, the importance of the agricultural sector was noticed. The EU policy and approach to rural development is based on the EU development policy and commitment to sustainable development as well as on international consensus and best practice (e.g. the MDGs) and aims at providing a coherent strategic framework for all related actions. The main EU policy objectives included the following actions (EU 2002d):

- 1) *Promote broad-based rural economic growth by supporting appropriate economic and sectoral policies¹⁰⁸.*
- 2) *Ensure more equitable access to productive assets, markets and services with a focus on land, rural finance and rural infrastructure¹⁰⁹.*
- 3) *Support human and social development¹¹⁰.*
- 4) *Ensure sustainable natural resources management by acting on key policy and crosscutting issues, institutional reform and the development and dissemination of appropriate technologies¹¹¹.*
- 5) *Reduce vulnerability to risks by managing risks and providing safety nets¹¹².*
- 6) *Address the social and political exclusion of the rural poor by building more effective, accountable, decentralised and participatory institutions¹¹³.*

The policy and strategy priorities for the forestry sector include the improvement of the policy and legal framework as well as the promotion of SFM practices and community participation in forest management and conservation. Sustainable natural resources management and addressing the rural poverty requires secure, well-defined and enforceable land rights and an appropriate access to land with regard to traditional and customary land tenure systems. In addition, the EU supports decentralization, local government, decision-making and democracy as well as involvement of local

¹⁰⁸ Paragraph 1, Chapter 6, Part 2, p. 7.

¹⁰⁹ Paragraph 2, Chapter 6, Part 2, p. 8.

¹¹⁰ Paragraph 3, Chapter 6, Part 2, p. 8.

¹¹¹ Paragraph 4, Chapter 6, Part 2, p. 8.

¹¹² Paragraph 5, Chapter 6, Part 2, p. 8.

¹¹³ Paragraph 6, Chapter 6, Part 2, p. 8.

communities and building of local capacity, for example, through community-based institutions. The EU also supports relevant international actions such as the implementation of MEAs and policy coherence among EU policies (EU 2002d).

The EU (2004a) has developed land policy guidelines to form a framework for EU interaction with developing countries and multilateral and bilateral donors. The framework promotes access to land and natural resources through policy design, assessment and reforms and aims at contributing to sustainable development, good governance and sustainable natural resources and land management. The role of land rights and tenure is essential in the context of land policy. The EU Land Policy Guidelines promote the application of the following key principles¹¹⁴ in land policy design and land policy reforms (EU 2004a):

- Long term processes and inter-ministerial work including in-depth analysis of current situations.
- Participatory approaches to policy making and taking into account the difference between statutory law and local practice.
- Sound land use planning as a part of land policy.
- Adequate recognition of the rights of minorities and indigenous peoples.
- Identification of key principles and allowance for diverse solutions within them and taking account of the implementation costs in the design of land tenure reform measures.
- A careful design of rules and tools and recognition of the fact that the impact of reform depends on changes in practices and not on the legal statutes alone.
- Widespread dissemination of information on the reform and the policy, legislation and procedures.
- A careful approach to gender issues.

The implementation of land policies needs to include all stakeholders and aim at promoting democratic governance at national and local levels. The role of good governance and the overall policy, legal and institutional framework are essential in addressing the key development challenges and the design of new policies or policy reforms. The EU has recognized the important role of customary tenure systems and local practices as a basis of development work. In addition, land policy is linked to many other policy areas such as poverty reduction, governance, local governance, decentralization, the environment and land use planning. The key actions in Africa¹¹⁵ include (EU 2004):

- Land redistribution.
- Gradual formalization of local land rights through decentralized land administration and more accountable processes.
- Linking customary and statutory rights.
- Establishment and protection of rights over common property and provision of alternative sources of credit.
- Negotiations between state and local people to promote consensus on new rules.
- Land rights of women in local, customary and formal systems.

¹¹⁴ p. 17-20.

¹¹⁵ p. 12.

6.2.12 Summary of the EU framework results

The results on the implications of the EU policy and governance framework for capacity building for good forest governance and SFM are presented in this part of the study. The summary results on capacity building for good forest governance are shown in Table 29 and all results on good forest governance, SFM and good governance in general are presented in Annex 8. The results suggest that capacity building for good governance for sustainable development and enforcement of related laws are major development priorities jointly with the application of multiple instruments for sustainable development.

Addressing illegal logging and trade in illegally harvested timber (FLEGT) as well as SFM and forest protection were among the key issues that also included governance reforms, decentralization, local governance, community participation, rights of indigenous peoples, and development based on customary and traditional tenure systems and local practices. Moreover, secure, well-defined and enforceable land rights and appropriate access to land as well as the establishment of links between statutory law and rights on the one hand and local practice and customary rights on the other. The main development priorities also include partnerships for institutional development, sharing of best practices and knowledge, awareness raising, capacity building and technical assistance. Addressing climate change challenges by highlighting the mechanism for reduced emissions from deforestation and forest degradation as well as related capacity-building and technology-transfer were also among the main priorities.

6.3 Case study on Ethiopia

6.3.1 Wondo-Genet College of Forest and Natural Resources

The case study on Ethiopia focused on the implications of Ethiopia's policy and legal framework as well as those of global and EU governance frameworks for institutional and human resource capacity building at WGCF-NR with emphasis on 1) training and extension, 2) education and research and 3) new curriculum development for good forest governance and SFM. Firstly, the institutional profile of the WGCF-NR was briefly assessed. The College offers many programmes for graduate and undergraduate students. The Faculty of Forestry provides education in general forestry, production forestry and farm forestry. Moreover, the College is carrying out extension, training and research activities and has established partnerships with other national and international education and research institutions (WGCF-NR 2010a). The key strategy statements of the Department of General Forestry at the WGCF-NR are presented in the following (WGCF-NR 2010b):

- Vision: *Shall be the center of excellence in the research, education and extension of forestry and related resources. It will play a major role in sustainable management, utilization and conservation of forests and forest-related resources, the attainment of food security and poverty alleviation.*
- Mission: *To provide relevant and problem-solving education at BSc level as well as short-term training including carrying out research and extension for the advancement of science and technology in forestry and forestry related resources.*
- Educational goals: *1) to provide high quality and relevant professional level education in forestry and related fields to address the manpower needs of the Country, 2) to conduct basic and applied research in forestry and related fields, paying special attention to the problem of the country and 3) to disseminate research findings to users through extension programs to relevant institutions and individuals.*

Table 29. Implications of the EU framework for good forest governance.

Good forest governance element	Development priorities
Multiple actors, levels and networks	Global governance for sustainable development as well as for effective development assistance and co-operation
NFPs, policies and laws (SFM)	Implementation of SFM and forest protection through NFPs Good governance and enforcement of clear and effective laws that support sustainable development Multiple instruments such as regulations, incentives and market-based instruments for sustainable development Integration of climate change mitigation and adaptation measures into development policies
Standards and principles (SFM)	SFM practices and community participation in forest management and conservation Sustainable management, use and conservation of natural resources Combating illegal logging and trade in illegally harvested wood (FLEGT) Application of the principle of 1) sustainable development, 2) prudent and rational utilisation of natural resources, 3) democracy, 4) respect for human rights, 5) fundamental freedoms, 6) rule of law, 7) high level of protection and improvement of the quality of the environment, 8) protection of human health, 9) liberty and 10) promotion of measures at international level to deal with regional or worldwide environmental problems Principles of good governance for global responsibilities: openness, participation, accountability, effectiveness and coherence
Decision-making and institutions	Application of the sustainable development policy guiding principles: 1) promotion and protection of fundamental rights, 2) solidarity within and between generations, 3) open and democratic society, 4) involvement of citizens, businesses and social partners, 5) policy coherence and governance, 6) policy integration, 7) use best available knowledge, 8) the precautionary principle and 9) the polluter-pays principle Comprehensive, integrated and cross-sectoral approaches to sustainable natural resources management and climate change Secure, well-defined and enforceable land rights and appropriate access to land including traditional and customary land tenure systems Decentralization and local government, decision-making and democracy as well as involvement of local communities and building of local capacity including community-based institutions Customary tenure systems and local practices as a basis of development work Land rights of women in local, customary and formal systems Application of strategic environmental assessments (SEA) and environmental impact assessments (EIA)
Partnerships and participation (including TFRK)	Partnerships including institutional development, knowledge-sharing, the exchange of best practices, awareness raising, capacity building and technical assistance Safeguarding indigenous peoples rights in development cooperation through ensuring their full participation as well as free and prior informed consent of the concerned communities Effective action on climate change including reversing emissions from deforestation and promotion of sustainable and efficient forest policy to enhance the contribution of forests to the overall reduction of emissions Capacity-building and technology-transfer for climate change adaptation

The College was established in 1978 with financial assistance from the Swedish International Development Agency (SIDA) and it is the only forestry and natural resource based institute of higher learning in Ethiopia. Moreover, it has conducted both applied (e.g. participatory forest management) and development (e.g. sustainable natural resource and conflict management) oriented research. This research has been interdisciplinary and participatory by allowing identification of priority problems and intervention strategies with the local communities. The departments of general, production and farm forestry aim at increasing the capabilities of their students in forest, natural resources and environmental management planning and in decision-making on the management, conservation and utilization of forest and natural resources and accounting for livelihood improvement and stakeholder participation (WGCF-NR 2010c;d;e). The Department of Natural Resource Management promotes holistic management of natural resources and multidisciplinary management approaches (WGCF-NR 2010f). The educational objectives of the Department of Forestry include e.g. the following (WGCF-NR 2010b):

- *Provide training in contemporary forestry science to ensure the sustainable utilization and development of forest resources.*
- *To produce qualified professionals in the field of forestry who can work at different levels as field technicians, educators, researchers and decision makers.*
- *Provide broader and multidisciplinary forestry education that will enable graduates to face and solve the complex problems in the forestry.*
- *Build the technical capacity of graduates to manage and utilize the natural forests and woodlands that better contributes for the increased income from timber and non-timber forestry products.*

The stakeholders of WGCF-NR include governmental and non-governmental organizations, regional states and communities. The educational infrastructure for forestry and natural resources training includes e.g. general, wood technology, GIS and soil laboratories as well as natural and plantation forests, an arboretum, an agroforestry demonstration site and a sawmill (WGCF-NR 2010a).

6.3.2 Sustainable development policies

The assessment of the policy framework for sustainable development identified the main elements of sustainable development in Ethiopia. The rural development policies, strategies and instruments of the government of Ethiopia (MOI 2001) focus on sustainable economic development. The importance of a development strategy for integrated and coordinated activities is recognized within the policy and strategy statements. Agricultural and rural development strategies are essential for the sustainable development of the whole country. Moreover, human resource development is a major element of all development strategies and especially in the agricultural sector that also covers education and training. Sustainable agricultural development requires both training and education and appropriate technology. The participation of rural people and private investors in the development of the agricultural sector is fully encouraged (MOI 2001).

The main development objective of the Ethiopian government is poverty eradication, and all development policies and strategies aim at contributing to this end (MoFED 2006). The Plan for Accelerated and Sustained Development to End Poverty (PASDEP) 2005-2009 is a national development strategy and continues the strategic directions provided by the Sustainable Development and Poverty Reduction Program (SDPRP) 2002-2005 in capacity building, human resource development and rural development. Moreover, the new plan introduced new policy directions and initiatives for more focus on the achievements of the MDGs and on market-based agricultural development and private sector development within an appropriate institutional

framework. Promotion of human resources development is a major element of the new strategy. The objectives of the development plan were highlighted as follows (MoFED 2006):

- *The main objectives of the Five-Year Development Plan is to lay out the directions for accelerated, sustained, and people-centered economic development as well as to pave the groundwork for the attainment of the MDGs by 2015¹¹⁶.*

The instruments to promote commercial agricultural development include measures such as specialized extension services, credit markets, improved land tenure security, quality standards, provision of various resources and materials and capacity building for improved institutions and markets. These approaches need to be in accordance with natural resources management and environmental protection. The new strategy for agricultural and rural development emphasizes human resource capability for development as well as appropriate allocation and use of agricultural land (MoFED 2006).

Balanced management and utilization of environmental resources supports the overall sustainable development for the nation. The strategy promotes good governance, human rights, decentralization and the development of democratic institutions as well as related capacity building. Moreover, the risk management measures within the strategy include strengthening of governance and local participatory structures. In addition, the strategy includes the following statement (MoFED 2006):

- *Ethiopia is committed to open, transparent, and democratic governance that respects the rights of all of its citizens, as enshrined in the Constitution¹¹⁷.*

The Sustainable Development and Poverty Reduction Program of the Ethiopian government (2002-2005) was mainly focused on rural and agricultural development (MOFED 2002). Moreover, the program promoted governance improvements, human resource development, democratic institutions and capacity building for education and training as well as decentralization of decision-making and devolution of powers to regional governments. The aims of the program also included the promotion of good governance and democracy at all levels. The program included the following statement about the overall objective (MOFED 2002):

- *The main objective of the Ethiopian government's development and poverty reduction strategy is to reduce poverty through enhancing rapid economic growth while at the same time maintaining macroeconomic stability¹¹⁸.*

The program recognized the importance of sustainable development and sustainable natural resources management to address environmental and land degradation as well as deforestation, soil erosion and overgrazing. Moreover, environmental sustainability, autonomous decision-making and full participation at the local community level were essential development priorities. The program aimed at providing an integrated and holistic framework for capacity building for public, private and civil society organizations and development partnerships (e.g. foreign investment, ODA and public-private relations). The development of the higher education sector focused on new facilities, more training, curriculum reform and quality assessment as well as on support for capacity building institutions such as universities and colleges. The overall priority areas of action in agriculture and rural development included the following (MOFED 2002):

- Agricultural extension packages.
- Extensive training of 1) trainers for effective extension services to promote agricultural development and 2) farmers in agriculture.

¹¹⁶ Paragraph 4.2, Chapter IV, p. 44.

¹¹⁷ Paragraph 7.14.1, Chapter VII, p. 176.

¹¹⁸ Paragraph 5.3.1, p. 42.

- Agricultural research to improve productivity and sustainability (e.g. appropriate technologies).
- Improvement of 1) rural land management to ensure tenure security and access to land and 2) the agricultural marketing system.
- Micro-finance institutions to improve rural financial services.

6.3.3 Ethiopia-EU cooperation

The results of the Ethiopia-EU cooperation assessment present the main elements of this cooperation especially in the field of natural resources. The Ethiopia-European Community country strategy paper and national indicative programme 2008-2013 (EU 2007b) is in line with the EU Strategy for Africa and the ACP-EU Partnership Agreement (See Chapter 6.2.5), with emphasis on the achievement of the MDGs, poverty reduction, sustainable development and good governance; it is also in line with Ethiopia's Plan for Accelerated and Sustainable Development to End Poverty (PASDEP). Moreover, the EU development co-operation activities are carried out in accordance with the relevant Treaty provisions.

The EU promotes sustainable development, human rights and environmental protection in addition to other development policy objectives and in consistency with multilateral agreements. Moreover, the essential development priorities comprise sustainable management of natural resources, institutional capacity building and participation of non-state actors in development. The focus sectors of this co-operation strategy include rural development (e.g. natural resources management), regional integration, and governance. Private sector development and trade are also among the supported sectors. In addition, the strategic co-operation aims at contributing to the restoration and conservation of the environmental, cultural and biological heritage of Ethiopia. The supported measures for natural resources management and governance include (EU 2007b):

- The establishment of participatory natural resource management systems and projects involving various local actors with forestry/pastoralist/agriculture based livelihoods.
- Enhanced natural resource use and conservation.
- Empowerment of the civil society and democratic institutions that ensure citizen participation.
- Transparency and accountability in service delivery.

6.3.4 The forest law

This assessment examined the forest law which is the legal foundation of good forest governance and SFM in Ethiopia. The Forestry Conservation, Development and Utilization Proclamation No. 94/1994 (FAO 1994b) is the main forest law in Ethiopia and it defined three categories of forests: state forests (for protection of genetic resources and the ecosystem), regional forests (designated by region) and private forests. The preamble recognized the importance of sustainable forest development and utilization and of appropriate forest conservation for national development, as well as combating soil erosion and desertification. Moreover, it noted the need for the participation of and benefit sharing among local communities as well as for improved development policy and legal coherence. The law included the following definitions (FAO 1994b):

- *Forest land means a land which is to be demarcated for the purpose of forest development and conservation in which naturally grown or planted trees and other woody plants are found including barren land found on steep slopes¹¹⁹.*

¹¹⁹ Paragraph 2.5, Part One, p. 2.

- *Protected forest means a forest or forest land to be demarcated in order to make it free from human or animal interference for the purpose of the environment and genetic resources¹²⁰.*
- *Private forest means a private forest developed by any person and includes a forest development by peasant association or by an association organized by private individuals¹²¹.*
- *There shall be three types of forest ownership: 1) State Forest, 2) Regional Forest and 3) Private Forest¹²².*

The results on the implications of forest law for good forest governance are presented in Table 30 and the results on good governance and SFM are shown in Annex 9. The results suggested that key development priorities comprised the development and implementation of SFM and certification practices as well as appropriate forest conservation measures. In addition, specific forest areas and related management plans should be established jointly with the control of prohibited activities and with the use of forest guards and forest product trade inspectors.

Table 30. Implications for good forest governance.

Good forest governance element	Development priorities
Multiple actors, levels and networks	Technical assistance from the Ministry for the conservation, development and sustainable utilization of state and regional forests Collaboration between appropriate bodies Prevention of forest fires (all stakeholders)
NFPs, policies and laws (SFM)	Preparation of forest development program
Standards and principles (SFM)	Sustainable forest utilization and related forest management procedures Sound forest development by private forest owners Appropriate certificate for transport and storage of forest products Protection of forest ecosystems Rehabilitation of endangered indigenous species Conservation of biodiversity and wildlife Protection of all forests from fire, pests, diseases and other disasters Maintenance and improvement of soil fertility and conservation of the soil from degradation and erosion Conservation of unique and representative habitats or natural resources
Decision-making and institutions	Demarcation of forest land to define it as state, regional or protected forests
Partnerships and participation (including TFRK)	Making forest development to benefit the people living within the forest area Forest management plans for state and regional forests Consultations on the benefits accrued by peasants Forest guards and inspectors controlling the mobility of forest products Training and research Overall control of prohibited activities

¹²⁰ Paragraph 2.8, Part One, p. 2.

¹²¹ Paragraph 2.9, Part One, p. 2.

¹²² Paragraph 3, Part One, p. 2.

The state and regional forests should be managed in accordance with management plans approved by the Ministry or regional authorities. The Ministry carries out the designation, demarcation and registration of state and protected forests as well as administers a central forestry register. Every region designates and demarcates its regional and protected forests and registers the private forests within its jurisdiction. Moreover, the central government or regional organizations, or holders of concessions are responsible for the sustainable utilization of state and regional forests. The forest law included the following statements (FAO 1994b):

- *The Ministry shall encourage and render the necessary technical assistance towards the conservation, development and sustainable utilization of state and regional forests*¹²³.
- *The Ministry or the Region, as appropriate, shall as regards state or regional forest: a) prepare forest development program and monitor its implementation*¹²⁴.
- *The Ministry of each region shall facilitate conditions and provide technical assistance towards the development of private forests*¹²⁵.
- *Owners of private forest shall have the duty to: a) develop forests in a sound manner and replace trees made use of, in different ways*¹²⁶.
- *State and regional forests shall be utilized in accordance with the management plan approved by the Ministry or the appropriate regional body*¹²⁷.

The law stipulates that the transport and storage of forest products requires an appropriate certificate of origin and destination issue by the Ministry or a regional body (FAO 1994b). The designation and demarcation of state, regional or protected forests should involve consultation on the implications for farmers in the case of their likely eviction from the area. In addition, the prevention of forest fires involves responsibilities for all related stakeholders. Prohibited activities under this law include e.g. utilization of specific species, activities in protected forests, cutting trees without a written permit and activities that are potentially harmful to natural resources in state, protected and regional forests. The Ministry or appropriate regional body is responsible for the provision of forest guards and inspectors controlling the mobility of forest products. The forest law had the following provisions about research and training (FAO 1994b):

- *The Ministry shall: 1) undertake or allow research to be undertaken for the conservation, development and utilization of forests as well as to promote the conservation of bio-diversity and genetic resources, 2) ensure the training of senior and junior professionals as well as technicians in adequate number for the development and management of state and regional forest and provide on the job training, 3) cooperate on the training programs conducted by the regions and 4) promote the heightened awareness in environmental protection and ensure its ultimate implementation*¹²⁸.

6.3.5 Natural resources and environmental policies

The results of this assessment present the main elements of Ethiopia's natural resources and environmental policies. The overall Conservation Strategy of Ethiopia is based on a holistic view of natural, human-made and cultural resources aiming at integration of current and future planning of natural resources use and conservation¹²⁹. The strategy for natural resources management (EPA 1997) promotes sustainable development and use, participatory conservation of resources, and

¹²³ Paragraph 5.1, Part Two, p. 3.

¹²⁴ Paragraph 5.2a, Part Two, p. 3.

¹²⁵ Paragraph 6.1, Part Two, p. 3.

¹²⁶ Paragraph 6.2a, Part Two, p. 3.

¹²⁷ Paragraph 9.1, Part Three, p. 4.

¹²⁸ Paragraph 11.1-4, Part Four, p. 5.

¹²⁹ Paragraph 52, Chapter II, p. 18.

institutional capacity building for human resources development, especially for training of trainers. Moreover, the strategy outlines that participatory conservation of resources involves democratic and decentralized governance as well as the integration of modern and traditional education systems. It is essential to provide information to people and incorporate their views and organizations into resource use and conservation (EPA 1998).

The main policy for addressing climate change is the Climate Change National Adaptation Programme of Action of Ethiopia (MWR 2007) which promotes a holistic approach to climate change and adaptation and advocates the integration of this issues into overall development programmes for ensuring participation of all relevant sectors. Moreover, the focus is on sustainable management and the development of natural resources for the overall national socio-economic development.

The key threats addressed include land degradation, deforestation, soil erosion, desertification and the loss of biodiversity. This action programme promotes community-based development projects and capacity building as well as sustainable management systems and practices (e.g. reforestation), R&D, participatory approaches and environmental education. Key development priorities include human and institutional capacity building and improvement of natural resources management through community participation (MWR 2007).

The action programme contributes to national development by advocating sound management and a rational use of natural resources and the environment. Promotion of environmental sustainability is among its main development goals. Moreover, this program aims at enhancing synergy with action plans under MEAs; it is connected to adaptation efforts within other policies such as the sustainable development strategy. Therefore, the program recognize that cross-sectoral coordination requires more attention and capacity building effort to promote effective implementation of national adaptation measures and environmental initiatives (MWR 2007).

The National Action Programme to Combat Desertification (EPA 1998) recognized that deforestation is a major problem in Ethiopia and it is among the main causes of continuous land degradation. The drivers of deforestation comprise agricultural expansion and an increasing demand for wood as construction material, fuelwood and charcoal. Natural resource and land tenure as well as the access to natural resources are essential development issues in this context. Moreover, the action programme promotes community participation in natural resources management with approaches that support local knowledge and management systems. Establishment of local rights and responsibilities can create long-term interests and incentives and can enhance the local ownership of activities. The overall goal of this action programme was (EPA 1998):

- *To increase human well-being in the arid, semi-arid and dry sub-humid areas of the country through the conservation and sustainable utilization of land and other natural resources*¹³⁰.

The key issues in forest policy in this context included SFM, forestry training and research and community forestry development as well as participatory forest protection. Moreover, development priorities comprised the implementation of forest legislation (also addressing the need for implementation regulations) and forest management plans, protection of all kinds of forests, meeting the demand for forest products, secure ownership of forest products, and private sector involvement in forest development. The guiding principles¹³¹ of the action programme included the following highlights (EPA 1998):

¹³⁰ Paragraph 2.2, Chapter Two, P. 114.

¹³¹ Paragraph 2.2, Chapter Two, P. 114-115.

- *Enhance regional economic development.*
- *Protect the environment and manage natural resources through sustainable production systems designed to stop/control desertification and mitigate the impacts of drought.*
- *Develop human resources through enhanced participation of local communities in planning, implementation and monitoring development projects and programmes as well increased formal and non-formal training.*
- *Increase knowledge and inculcate a sense of community responsibility and ownership of natural resources.*
- *Clearly defined rules and regulations for the access, management and equitable sharing of benefits are prerequisites for the sustainable use of common property resources.*
- *Public policies and market forces have to become supportive of sustainable development.*

Sustainable land use and management and capacity building for training and education as well as an appropriate technology for natural resources management, agriculture and environmental protection are highly important for combating desertification. In general, combating desertification requires the development of appropriate policy and institutional arrangements such as clear land tenure systems, participatory natural resources management and involvement of people in development as well as in decision-making and an increased capacity for extension services (EPA 1998). The objectives¹³² of the action programme included (EPA 1998):

- *Enhancement of policies and strategies for the conservation and sustainable utilization of the natural endowments of the arid, semi-arid and dry sub-humid areas.*
- *Ensuring that tenure and access rights to land and other natural resources in these areas are conducive for conservation and sustainable management.*
- *Strengthening institutions and organizations for the conservation and sustainable utilization of natural resources, particularly at the local level and promoting local coping strategies through better understanding.*

Ethiopia implements its commitments within the CBD through the Biodiversity Strategy and Action Plan (IBC 2005) with a main focus on long-term biodiversity conservation and sustainable use. The strategy recognized that sustainable use systems and the management of protected areas should include effective public-private-civil society partnerships as well as joint management of natural resources by the government and local communities. Moreover, the development priorities included legal, economic and institutional systems that promote sustainable use as well as an improved policy and law enforcement, and land use policies that address ownerships issues.

In addition, biodiversity management actions should be based on sound ecological principles, scientifically valid information and local knowledge. Capacity building for training, research, public education and awareness are important elements of this strategy and action plan. The overall goal of the Ethiopia's Biodiversity Strategy and Action Plan was formulated as follows (IBC 2005):

- *Effective systems are established that ensure the conservation and sustainable use of Ethiopia's biodiversity, that provide for the equitable sharing of the costs and benefits arising there from, and that contribute to the well-being and security of the nation¹³³.*

¹³² Paragraph 2.2, Chapter Two, P. 116.

¹³³ Paragraph 3.2, Chapter Three, p. 56.

6.3.6 Summary

The implications of Ethiopia's policy and legal framework for institutional and human resource capacity building in WGCF-NR with emphasis on 1) training and extension, 2) education and research and 3) new curriculum development for good forest governance and SFM are presented in this part of the case study. The results on training and extension are presented in Table 31 and the those on education and research and new curriculum development in Annex 10.

The results suggested that capacity building efforts should particularly focus on SFM planning and an integration of SFM into local systems based on local conditions, stakeholder consultation and indigenous knowledge systems as well as on forest conservation and protection measures. Moreover, human resources development for sustainable rural, natural resource and agricultural development is among the key development priorities jointly with good governance, effective public-private-civil society partnerships and community-based and participatory sustainable management systems and practices that encompass the local knowledge and management systems. In addition, development priorities comprised combating deforestation, environmental and land degradation, soil erosion, desertification, loss of biodiversity and overgrazing issues.

Table 31. Capacity building for training and extension services.

Training and extension services	What needs to be done (new focus areas)?
Good forest governance	<p>Training of trainers and extension services for local communities for addressing 1) SFM planning and decision-making, 2) integration of SFM into local systems based on local conditions, stakeholder consultation and indigenous knowledge systems, 3) distribution of forest benefits, 4) certification and inspection of forest products, 5) forest guarding and forest products monitoring practices, 6) prohibited activities, 7) rehabilitation of endangered indigenous species, 8) conservation of biodiversity and wildlife and 9) prevention of forest fires and 10) participatory natural resources management systems including various local actors livelihoods based on forests, rangelands or crop cultivation</p> <p>Human resource development for integrated and coordinated rural and sustainable agricultural development activities, sustainable natural resources management and environmental protection</p> <p>Good governance and local participatory structures, human rights, decentralization and development of democratic institutions</p> <p>Integrated and long-term planning of natural resources use and conservation</p> <p>Community-based and participatory sustainable management systems and practices including the local knowledge and local management systems</p> <p>Market-based and commercial agricultural development</p> <p>Participation of rural people and private investors</p> <p>Quality standards</p> <p>Addressing deforestation, environmental and land degradation, loss of biodiversity and overgrazing</p> <p>Rural land management including land tenure and access to land</p> <p>Micro-finance institutions to improve rural financial services</p> <p>Combating soil erosion and desertification</p> <p>Sustainable use, management and conservation of biodiversity including sustainable use systems, effective public-private-civil society partnerships, joint natural resources management, sound ecological principles, scientifically valid information, equitable sharing of the costs and benefits, and local knowledge</p>
SFM	Training of trainers and extension services for local communities and private forest owners for 1) SFM practices and 2) protection of forest ecosystems

6.4 Case study on Southern Sudan

6.4.1 GoSS Forest Policy Framework

The new forest policy framework of the Ministry of Agriculture and Forestry (MAF) of the Government of South Sudan (GoSS) forms the foundation for good forest governance and SFM in Southern Sudan. This Framework has been prepared in accordance with international forest policy instruments and it provides the new vision and the main goals and principles for SFM in Southern Sudan. The MAF gives highest priority to efforts aimed at achieving sustainable rural development and conservation of the natural resources and the environment. Moreover, the MAF has the following vision on forestry (GoSS 2007):

- *A green Southern Sudan, with fully recovered natural and plantation forests, effectively managed for sustainable socio-economic development¹³⁴.*

This new forest policy aims at ensuring a sufficient and sustained forest resource base and a flow of forest goods and services to support livelihoods and socio-economic development for the present and future generations while ensuring inter-generation equity in relation to forest resources. Moreover, the forest sector is expected to contribute significantly to resettlement and rehabilitation efforts. The main SFM principles adopted in the new framework are based on MEAs (see Table 32). The results of the assessment of the implications of the new GoSS framework for capacity building for SFM in Southern Sudan (including Upper Nile State and Renk County) are presented in Table 33 whereas the results on good forest governance and good governance in general are shown in Annex 11. The MAF has the following mission¹³⁵ for the forest sector (GoSS 2007):

- *To develop and implement appropriate policies, legislation, institutional reforms and strategies for a vibrant forest sector.*
- *To establish and ensure sustainable management of industrial and non-industrial plantations to meet the growing wood demands.*
- *To encourage and support the growth of competitive private sawmilling and manufacture forestry industry based on supply from sustainably managed forests.*
- *To combat desertification and desert encroachment and to protect agricultural land.*
- *To protect and conserve forest biodiversity.*
- *To reverse the trend of decline in forest cover and to ensure that a set minimum percentage (set at 20%) of the Southern Sudan land area remains under forest cover.*
- *To strengthen forestry institutions and services to increase productivity, achieve household food security, alleviate poverty and contribute to the macro-economy of Southern Sudan.*

Table 32. The global SFM priorities based on MEAs.

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| <ol style="list-style-type: none">1) Appropriate assessment and valuation of forest resources, products and services.2) Elaboration of C&I for SFM.3) Understanding and mitigating underlying causes of deforestation and forest degradation.4) Paying greater attention to fragile forest ecosystems and the conservation of unique forests.5) Enhanced recognition and use of traditional forest-related knowledge.6) Increasing support to forest research and information dissemination.7) Promoting transfer of environmentally sound technologies.8) Enhancement of trade in forest products and services in an environmentally sustainable way.9) Recognizing the rights of indigenous people and forest dependent communities.10) Promoting and enforcing appropriate codes of conduct in forest enterprises. |
|--|

The new forest policy promotes the establishment of effective management regimes to ensure sustained supplies of fuelwood, rural construction materials and timber for domestic use and export. In addition, the framework promotes a devolved structure of forest governance regimes to ensure an equitable access to forest benefits for all stakeholders. Community participation in and benefits from forest management and protection are among the key elements of this new policy. The development of this new forest policy is based on the following principles¹³⁶ (GoSS 2007):

- *Consistency with CPA provisions, the interim constitution and GOSS development vision 2011.*
- *Conformity with relevant laws and regulations and particularly with Forest Act (1986) and its subsidiary regulations as enforced and reviewed from time to time.*
- *Commitment to conservation and sustainable development, which meets the needs of the present generation without compromising the rights of future generations.*
- *Adoption of integrated approaches to forest management for improved livelihood and contribution to poverty eradication for communities of Southern Sudan.*
- *Active participation and involvement of community in forest management in collaboration with the States and Local Governments.*
- *Commitment to relevant Regional and International Conventions and Standards.*
- *Commitment to safeguarding the country's biodiversity and environmental services.*
- *Development of partnerships to enhance efficiency, transparency, accountability and professionalism, and to build confidence and trust among forest stakeholders. Thus, due focus is given to: 1) reviewing the role of Federal Government and promoting gradual transfer of responsibilities to other players, which can be more effective, 2) enhancing the roles of States and Local Governments through devolved responsibility for resource management and benefit sharing, 3) promoting the role of the Private Sector as Investors and Managers, 4) encouraging the participation and maximize benefits of local communities and farmers, 5) enhancing the role of NGOs/CBOs so as to strengthen civil society participation and 6) supporting the implementation of current and future international commitments which affect the forest sector, such as the International Conventions on environment and forest resources.*

6.4.2 Renk County

There are many rural development challenges in Renk County related to sustainable livelihoods and poverty reduction such as continuous deforestation, land degradation and desertification. Therefore, sustainable natural resources management and improvement of the overall environmental situation are major development priorities, very similarly to many other parts of the northern Upper Nile State. Moreover, promotion of capacity building for good forest governance and SFM are important elements of sustainable development at the County and local levels.

This study involved visits to Shikh Yasin, Abu Khadra, Magara (2 villages), Goz Fami (2 villages), Goz Rum and Nger villages which are located in the northern parts of Renk County in Upper Nile State. Interviews and group discussions were carried out in the project villages (village chiefs and other villagers attended).

¹³⁶ Paragraph 5.1a-n, p. 18.

Table 33. Implications of the GoSS Forest Policy Framework for SFM.

SFM element	Development priorities
The extent of forest resources	Land leases for individuals and companies for the establishment of forests Forest inventories and surveys in plantations and natural forest reserves Enrichment plantings with appropriate tree species along water courses, watersheds and wildlife sanctuaries/reserves to prevent ecological imbalances and to preserve environmental resilience
Forest biological diversity	Conservation of biodiversity in the natural woody vegetation so as to support local and national/state socio-economic development and to follow international obligations
Forest health and vitality	
Productive functions of forest resources	Development of forest plantations for meeting present and future local wood demands and for export (implemented by relevant levels of government and by communities)
Protective functions of forest resources	Integrated forest management strategies to promote biodiversity growth on rangelands, endangered species preservation, fodder and water conservation Fire control in all forests and on woodlands (setting a fire without a permission in any forest and/or on woodland is a crime) Recruitment of technical staff to state governments (e.g. County) to ensure high and uniform standards of practice including trained and armed forest guards to ensure effective protection and enforcement of forestry regulations, rules and laws
Socio-economic functions of the forest	Pricing policy driven by free market forces taking into account fair production and processing costs Establishment, regulation and review of the prices of forest products and services to ensure transparency and fairness among the various stakeholders
The legal, policy and institutional framework	Development of a new Forest Act and subsidiary legislation Formulation and implementation of forest resource development plans by GoSS-MAF and state governments, with due monitoring of progress Formal partnership between DG Forestry, state government and local communities to ensure SFM and forest protection and the sharing of the benefits produced by forest resources Public-Private-Community partnerships 1) to ensure sustainable forestry development and 2) for sustainable and integrated rural development (e.g. good local governance) and for the conservation of natural resources and the environment Collaborative partnerships for SFM between GoSS-MAF, state governments and rural communities, with fair sharing of benefits Support of local community forestry organizations and social forestry programmes while preserving the rights and ownership of communities and the benefits from forest resources Promotion and facilitation of access to emerging benefits from global forest services such as carbon sequestration and biodiversity conservation funds

In addition, interviews and discussions were carried out with the staff of the GoSS MAF DG Forestry in Juba (State of Central Equatoria) and with the Renk County authorities (the County Vice Deputy Commissioner's office and the Renk County Forest Department). Topics were the current situation and the sustainable development priorities related to the following specific issues:

- Sustainable forest management.
- Sustainable natural resources management.
- Environmental and land degradation and climate change challenges.
- Land use and ownership.
- Governance and public forest authorities.
- Governance reform and development needs.

Results from the interviews and group discussions in the two Magara villages and with the Renk County officials are presented in Tables 34 and 35 whereas the results from the other villages are presented in Annex 12. In brief, the results of the village interviews and group discussions suggest that forest management is currently not sustainable; deforestation is a major problem; the wood supply for various purposes is declining; the 5% tree cover rule is not applied, and the main forest governance development priorities comprise a need to improve the public-community partnerships including provision of support and resources to the local communities by government institutions. Some villagers were aware of the 10% tree cover rule, but noted that it was currently not implemented. The Abu Khadra and Nger villagers did not have information on the 5 or 10% tree cover rules whereas the Goz Rumi villagers stated that 10% of the land should be planted with trees (including tree fences). The villagers of Magara 2 village noted that the government should enforce the 5% tree cover requirement on farmlands.

The local communities within the visited villages controlled the land use and the related decision-making and land use and ownership were based on a permanent land rent (on land owned by the government) in Magara 1 and 2 and Abu Khadra villages, or inherited (Nger, Goz Rum), or rented from other villagers (Goz Fami 1 and 2). The semi-pastoralists of Shikh Yasin village had their own lands far away and the current land use and land tenure arrangements were unclear. The main environmental problems included deforestation, land degradation, desertification, soil erosion and water shortage as well as the poor soil quality and subsequent declining production levels. Most of the wood was used within the villages as fuelwood, charcoal and construction materials. Natural resources management was not considered to be currently sustainable. The results from the Shikh Yasin (semi-pastoralist) village indicate that the villagers were willing to keep less cattle provided that the animals were more healthy and productive and also to try new livelihoods.

In general, the villagers appreciated their trees and especially wanted more multipurpose tree species such as *Acacia senegal*. In addition, they were willing to implement the 5 or 10% tree cover rule on all lands as well as sustainably manage and protect the trees and generally plant more trees if provided the necessary support, materials and resources by the government. The results from the Abu Khadra village suggest that governance and management improvements were needed jointly with deployment of local forest guards to address the illegal logging and trade run by out-of-state actors. The Abu Kahdra and Goz Fami (1 and 2) villages emphasized the need to ask for more governmental support. The villagers of the Nger village outlined a need for small loans (micro-credit). The results suggest that there was very limited contact or no contact at all between the local governmental institutions and the communities within the visited villages.

Table 34. Results of the interviews and discussions in Magara 1 and 2 villages.

Development priority	Magara 1	Magara 2
Sustainable forest management	<ol style="list-style-type: none"> 1) Not present 2) No 5% tree cover 3) A larger area is needed to maintain wood supply 4) Cutting takes place all year round 5) Suitably sized trees are cut wherever they can be found (difficult to find large trees) 6) Wood is used in the villages or in neighbouring villages 7) Wood is used for charcoal and fuelwood, fire is used to clear land 8) Trees are important and people appreciate them 	<ol style="list-style-type: none"> 1) Not present 2) The 5% tree cover requirement not applied 3) Long distance to collect wood/charcoal and difficult to find logs 4) Wood is used in the village (not commercially) and large trees are sold 5) They make their own charcoal (from nearby trees) and controlled fire is used to clear land 6) Areas are becoming devoid of trees 7) There used to be trees in the irrigation scheme before the war 8) Trees are important and people appreciate them
Sustainable natural resources management	<ol style="list-style-type: none"> 1) Not present 2) There are still resources, but they are declining rapidly 3) Production does not cover the expenses 	<ol style="list-style-type: none"> 1) Not present 2) The irrigation schemes are presently rain-fed 3) Villagers have small gardens for household requirements (no hunting/fishing) 4) There used to be wildlife (30 years ago)
Environmental and land degradation & climate change challenges	<ol style="list-style-type: none"> 1) Deforestation, desertification, land degradation and climate change are problems 2) Water shortage and decreased rain-fall are problems 3) Lack of resources is a growing problem in the long-term 	<ol style="list-style-type: none"> 1) Deforestation, land degradation, soil erosion and poor soil quality are problems 2) Desertification is a clearly visible problem 3) Trees are missing and this results in poorer soils and lower production levels 4) Water shortage is a problem
Land use and ownership	<ol style="list-style-type: none"> 1) Government land (Renk County) 2) Permanent land rent 3) Villagers use the land 4) Village chief and the community decided land use 	<ol style="list-style-type: none"> 1) Government land (Renk County) 2) Permanent land rent
Governance and public forest authorities	<ol style="list-style-type: none"> 1) No guidelines, rules, enforcement or monitoring 2) No practical help provided ("just talk and no action") 3) Some materials are provided (seeds) 3) Village chief resolves income and resource problems and can prevent illegal logging 	<ol style="list-style-type: none"> 1) No guidelines, enforcement or monitoring 2) GoSS should implement the 5% tree cover requirement on farm lands 3) Some efforts to enforce regulations and monitor activities in the irrigation scheme 4) Promises for assistance to small schemes, with poor results
Governance reform and development needs	<ol style="list-style-type: none"> 1) Materials and resources are needed (e.g. seeds, cattle, building materials and fertilizers) 2) Long-term sustainable development requires more resources and income opportunities 	<ol style="list-style-type: none"> 1) Materials and resources are needed (e.g. water pumps and micro-credits) 2) Long-term sustainable development requires more resources and income opportunities (credits cause risks e.g. people to lose their houses) 3) People want permanent farming and tree nurseries jointly with the Forest Department

Table 35. Results of the interviews and discussions with the Renk County officials.

Development priority	The County Vice Deputy Commissioner's office	The Renk County Forest Department
Sustainable forest management	Promotion of sustainable management practices is important	SFM is an important goal and its implementation is an essential part of the new GoSS Forest Policy Framework
Environmental and land degradation and climate change challenges	Deforestation and climate change are major problems	Deforestation and lack of sustainable management practices are serious problems
Governance and public forest authorities	Lack of resources is the main cause of problems	Lack of resources, facilities and capacity
Governance reform and development needs	1) Community empowerment 2) Capacity-building in UNU (focus on forests) 3) Realization of the Green County Vision	1) Capacity-building within the Forest Department 2) Development of community forestry

The results of the group discussions and interviews with Renk County officials suggest that sustainable natural resources management and related practices including SFM are considered to be important development priorities and essential elements of the new GoSS Forest Policy Framework. The officials recognized that the lack of sustainable management practices, continuous deforestation and emerging climate change challenges were serious problems. Moreover, they identified the lack of resources, facilities and overall capacity as the main problem slowing down the improvements in governance and public-community partnership. The key development priorities in governance reform and development comprised the development of community forestry and community empowerment as well as capacity building (at the Renk County Forest Department and the University of Upper Nile State) and implementation of the latest County development policies (e.g. the Green County Vision).

6.4.3 Good forest governance assessment

A diagnostic and planning tool for good forest governance (the “pyramid”) was applied in this case study on capacity building priorities for good forest governance and SFM in Southern Sudan and especially in Renk County. The study involved multiple stakeholders and the latest policy instruments which were all assessed within this comprehensive framework. The results outline the key national-level goal setting, decision-making and participatory development priorities in the context of good forest governance. Moreover, the results link international, national and local forest governance and integrate international policies and field level progress into good forest governance and SFM. The results of the good forest governance assessment for Policies and Extension are presented in Tables 36 and 37 whereas the results for Foundations, Roles, Instruments and Verification are presented in Annex 13.

The levels of the pyramid assessment produced results on the specific elements of forest governance (good practice) including both the current situation and a future outlook. The results focused on verification of SFM, the promotion of SFM for stakeholders (extension), coherent implementation (instruments); forest policies, legislation and standards for SFM (policies); institutions and stakeholder roles, and the overall foundations and enabling conditions for good forest governance.

The results suggested approaches for creating good forest governance at all levels. The key results of this assessment of the most urgent capacity building and development priorities (disaggregated for each level) for good forest governance comprised the following:

- Verification of SFM: 1) application of internationally recognized audit schemes, 2) the establishment of multilevel and multistakeholder networks and partnerships and 3) capacity building, training and extension at the local level.
- Extension: 1) development of extension services for awareness building for SFM among all stakeholders, 2) establishment of public-private-community partnerships and 3) implementation of SFM and forest protection measures as well as combating deforestation and forest degradation.
- Instruments: 1) implementation of full stakeholder participation, 2) establishment of partnerships for stakeholder capacity building and 3) development and implementation of a coherent set of appropriate instruments for sustainable development.
- Policies: 1) a new forest law for SFM, 2) application of SFM standards and 3) comprehensive sustainable development and rural development policies.
- Roles: 1) establishment of new partnerships, 2) integration of all stakeholders and 3) institutional capacity building, extension and training at the local level.
- Foundations: 1) design and implementation of sustainable development policies and laws, 2) promotion of common vision based on both new insights and traditional or customary practices and 3) establishment of new partnerships and promotion of enabling conditions at all levels.

The results suggest that development priorities include the application of internationally recognized and agreed SFM standards and audit schemes and that multilevel and multistakeholder networks and partnerships should be established jointly with increased capacity building, training and extension efforts at all levels. Special emphasis should be placed on institutional development and capacity building within local communities including public-private-community partnerships, full participation, and incorporation of TFRK. Moreover, increased and broader international cooperation is needed to promote overall sustainable development accompanied by a coherent and consistent set of national and local level policies and instruments.

The results show that one major element is missing: a new forest law for SFM and forest protection. The new forest law would be the cornerstone of all emerging and future efforts to build capacity for good forest governance and SFM in all of Southern Sudan. The scores of this assessment indicated that major capacity building challenges exist especially as related to verification, extension and roles of the various stakeholders. The Foundations level assessment produced mainly amber scores whereas the scores of the Roles level assessment were mainly red. The scores of the Policies level assessment were mainly amber and the scores of the Instruments level assessment showed both red and amber results. Finally, the scores of both Extension and Verification level assessments were all red.

6.4.4 Implementation and enforcement of MEAs

This study was based on both the UNEP (2008) manual on compliance with and enforcement of MEAs and the 'pyramid' analytical tool used in the previous study. The assessment comprised a matrix of implementation instruments and measures as well as related assessment sections. The results of the assessment of the implementation and enforcement of the NLBI are presented in Table 38, whereas the results of the ITTA 2006, UNFCCC, UNCCD and CBD assessments are presented in Annex 14. All the assessments suggest that drafting and enforcement of a new forest law for

SFM and forest protection is the most important development priority for the implementation and enforcement of MEAs.

In addition, the general priorities comprised increased, new and additional financial resources and technical assistance as well as material resources and technology transfer especially for local and county level capacity building. Implementation and enforcement of all MEAs requires increased promotion of training, extension, education, R&D and awareness raising.

Table 36. Policies level assessment.

Element of good forest governance (policies)	What is working?	What is missing?	Score	What needs to be done?
Vision and priority setting	GoSS aims to promote sustainable development policies	Comprehensive sustainable development priorities	Amber	Design and implementation of sustainable development policies
Forest policy	Focus on SFM and sustainable socio-economic development Combating deforestation	Integration of all sustainable development principles and elements of SFM	Amber	Continuous review and updating of forest policy in line with international agreements for SFM
SFM standards	SFM standards are based on international agreements (MEAs)	Incorporation of all internationally agreed elements of SFM	Green	Practical application of SFM standards
Forest law	GoSS committed to draft a new forest law	New forest law	Amber	Drafting and enforcement of a new forest law
National forest estate	The new forest policy framework includes National and State Forest Reserves	SFM and forest protection partnerships in National and State Forest Reserves	Amber	Implementation of SFM and forest protection partnerships in National and State Forest Reserves
Rights and awareness	The new forest policy framework promotes local governance, rights of indigenous people and forest dependent communities, public awareness and devolved authority and responsibilities	Local governance, public awareness and devolved responsibilities for SFM and forest protection partnerships	Amber	Application of community-based SFM, TFRK and traditional and customary practices
Benefits	The new forest policy framework promotes increased benefits for local communities and farmers	Governance of benefits through partnerships	Amber	Promotion of new livelihoods, local processing and equitable benefit sharing

Table 37. Extension level assessment.

Element of good forest governance (extension)	What is working?	What is missing?	Score	What needs to be done?
Stakeholder awareness of SFM	The new forest policy framework promotes awareness of SFM	Extension services for awareness building for SFM among all stakeholders	Red	Development of extension services for awareness building for SFM among all stakeholders including functional and effective partnerships
Forest authorities	Forest authorities have the responsibility to implement the new forest policy framework	Public-private-community partnerships	Red	Establishment of public-private-community partnerships
Forest producers	The new forest policy framework promotes forest industry based on sustainably managed forests	SFM Plantation development Forest protection	Red	Implementation of SFM Establishment of tree plantations and ensuring forest protection
Consumers	The new forest policy framework aims at meeting a growing wood demand	Combating deforestation and forest degradation SFM Forest protection	Red	Measures to combat deforestation and forest degradation Implementation of SFM and forest protection measures
General public	The new forest policy framework aims at meeting a growing wood demand	SFM Extension and awareness building	Red	Implementation of SFM Establishment of extension services and promotion of awareness building
Stakeholder needs assessment	The new forest policy promotes full stakeholder participation	Public-private-community partnerships	Red	Establishment of public-private-community partnerships

The results of the NLBI assessment indicate that development priorities encompass development and establishment of SFM standards as well as institutional capacity building for and the establishment of public-private-community partnerships for SFM and good forest governance. The scores of the NLBI assessment were both amber and red. The results of the ITTA 2006 assessment indicate that verification systems for international trade in tropical timber and timber products from sustainably managed sources should be established and that addressing illegal logging and trade are among the key development priorities. The results indicate that verification of legally sourced timber exports requires good governance, clear land tenure arrangements and cross-sectoral coordination. The scores of this assessment were both amber and red.

The results of the CBD assessment indicate that institutional capacity building for and the establishment of public-private-community partnerships for the conservation and sustainable use of biological diversity including TFRK and customary and traditional systems are critically important development priorities. In addition, environmental impact assessments should be applied to development projects. The scores of this assessment were both red and amber. The key development priorities for the implementation and enforcement of the UNFCCC and the Kyoto Protocol comprise climate change adaptation and mitigation mechanisms such as Joint Implementation, CDM and emissions trading. Moreover, they included the establishment of public-private-community partnerships for climate change adaptation and mitigation and better recognition of global forest services such as carbon sequestration. The scores of this assessment were mainly amber. The results of the UNCCD assessment indicate that institutional capacity building and public-private-community partnerships are needed for combating desertification and for mitigation of the effects of drought. The scores of this assessment showed mostly red results.

6.5 AFLEG and AMCEN framework

6.5.1. AFLEG and the AMCEN

The results of this assessment present the main elements of the AFLEG and AMCEN and especially their main implications for good forest governance and SFM. The African countries agreed on the African Forest Law Enforcement and Governance (AFLEG 2003) jointly with the EC and some other countries and made multiple statements with a focus on the establishment of good governance in post-conflict situations and on the development and implementation of new forest laws. Moreover, the focus was on addressing illegal logging and illegality in the forest sector, the rights of indigenous peoples and the involvement of the private sector and NGOs. The preamble highlighted the role of government¹³⁷ in effective governance including laws, policies and institutional capacity to enforce laws to address illegal logging and related trade as well as the need for good governance¹³⁸ in forest management to promote sustainable solutions to law enforcement and the important role of international, regional and subregional organisations and agreement¹³⁹ (AFLEG 2003).

In addition, the rights of local populations¹⁴⁰ to participate in forest resource management, the benefits of government-civil society partnerships¹⁴¹ in the formulation of forest laws and policies, and the urgent need to develop and build capacity of governments and civil society institutions to address forest law enforcement and governance in effective partnerships¹⁴² were recognized.

¹³⁷ Paragraph 4, p. 1.

¹³⁸ Paragraph 5, p. 1.

¹³⁹ Paragraph 6, p. 1.

¹⁴⁰ Paragraph 10, p. 2.

¹⁴¹ Paragraph 11, p. 2.

¹⁴² Paragraph 12, p. 2.

Table 38. Implementation and enforcement of the NLBI.

Implementation instrument/measure	What is working?	What is missing?	Score	What needs to be done?
National framework and instruments	The new forest policy framework	A new forest law	Red	Drafting and enforcement of a new forest law for SFM Development of SFM standards
National institutional capacity building	Forest officials aim at implementing the new forest policy framework	Local level institutional capacity building	Amber	Institutional capacity building for SFM and good forest governance at the local level
Broad stakeholder consultation and involvement	The new forest policy framework promotes full stakeholder participation	Public-private-community partnerships	Red	Establishment of public-private-community partnerships for SFM
National measures in line with standards and national and local systems, conditions and needs	The new forest policy framework is in line with international SFM standards	Public-private-community partnerships for SFM Capacity building for local governance and institutions	Amber	Establishment of public-private-community partnerships Establishment of local governance including TFRK and customary and traditional systems Institutional capacity building at the local level
Training, education and awareness raising	The new forest policy framework promotes extension, training, education, research and awareness raising	Capacity and resources for training, education and awareness raising	Red	Development and implementation of appropriate training, extension, education and awareness raising for SFM, tree planting and forest protection
Financial and technical assistance	The new forest policy framework aims at establishing new financial arrangements and to promote application of appropriate technology	Local and county level financial and technical resources	Amber	Increased, new and additional financial resources and technical assistance for local and county level capacity building

The impact of trade on SFM and the shared responsibility of timber exporting and importing countries to address illegal logging and related trade were also outlined by the parties. The key elements of the AFLEG Ministerial Declaration include (AFLEG 2003):

- Institutional reforms including good governance and technical capacity of the forest sector¹⁴³.
- Institutional capacity building including training and technology for forest law enforcement¹⁴⁴.
- Involvement of stakeholders in decision-making in the forest sector including local communities¹⁴⁵.
- Consideration of the legitimate interests of all parts of society when developing forest legislation including addressing traditional and customary laws and practices¹⁴⁶.
- Addressing illegal activities in the forest sector and re-establishment of good governance in post-conflict situations¹⁴⁷.
- Integration of forest law enforcement and governance into NFPs¹⁴⁸

The AFLEG (2003) framework recognized the importance of consistent policies as well as of demonstrating legal practices and SFM to promote market and trade development. The role of TFRK was also noticed by the parties. The development of financial mechanisms to support forest law enforcement and governance initiatives including new development and trade partnerships and application of international instruments within the MEAs was considered to be important. The Declaration covered an indicative list of actions including e.g. the following measures (AFLEG 2003):

- Legislation and policy reforms: 1) consolidation and harmonization to improve policies and fragmented legislation to promote good governance and 2) access to legislation information by all stakeholders.
- Capacity-building: 1) government services for SFM (focus on forest law enforcement and governance), 2) forest services for forest law enforcement and governance, 3) civil society to participate in forest law enforcement and governance and 4) training of staff for effective forest law enforcement and governance.
- Promotion of collective responsibility in forest law enforcement and governance at local, national, regional and international levels.
- Development of participatory forest management practices to promote forest law enforcement and governance.

The Nairobi Declaration on the African Process for Combating Climate Change (AMCEN 2009) stated the commitment of African countries to addressing climate change challenges, so as to promote sustainable development within the continent including the achievement of the MDGs. The declaration recognized the need for coherence and coordination in the implementation of sustainable development and climate change initiatives as well as the need to support reduction of emissions from deforestation and forest degradation. The declaration included the following statements on the decided commitments of the parties (AMCEN 2009):

- *To urge all Parties and the international community that increased support to Africa under the future climate regime should be based on the priorities determined by Africa: adaptation,*

¹⁴³ Paragraph 1, p. 2.

¹⁴⁴ Paragraph 6, p. 3.

¹⁴⁵ Paragraph 7, p. 3.

¹⁴⁶ Paragraph 12, p. 3.

¹⁴⁷ Paragraph 16, p. 3

¹⁴⁸ Paragraph 25, p. 4

capacity-building, research, financing and technology development and transfer, including support for South-South transfer of knowledge, in particular indigenous knowledge¹⁴⁹.

- *To ensure that climate change adaptation imperatives are aligned more closely throughout regions and countries and to foster regional and international cooperation to develop appropriate adaptation financing mechanisms, in addition to the use of indigenous knowledge relating to sustainable development and natural resource management, and also to ensure improvement of climate risk management and implementation of the African regional strategy for disaster-risk reduction¹⁵⁰.*

The significant role of forests in addressing climate change challenges was recognized in this declaration. Moreover, an institutional framework for the development and transfer of appropriate technology should be developed. Access of rural communities to sustainable, clean and affordable energy should be supported through investments. The declaration included the following statements on forest-related commitments of the parties (AMCEN 2009):

- *To encourage the establishment of a fund to reward or provide incentives for reducing emissions through sustainable land-management practices, including forest conservation, sustainable forest management, the avoidance of deforestation, afforestation and sustainable agriculture¹⁵¹.*
- *To agree that climate change mitigation efforts and actions aimed at alleviating the consequences of deforestation and forest degradation should be considered in future positive incentive mechanisms for emission reduction, taking into account the role that African forested areas, in particular those of the Congo basin, play in regulating the global climate system¹⁵².*
- *To agree that the environmental services provided by local and indigenous communities in protecting and conserving these forests should be duly recompensed¹⁵³.*

The conceptual framework for African climate change programmes at all levels emphasized that the implementation of adaptation and mitigation efforts need to be supported by finance, capacity building and technology with full participation of all stakeholders as well as full involvement and empowerment of and partnership with the civil society. The agreed action areas included adaptation in key sectors such as forests, agriculture, biodiversity and ecosystems taking into account cross-sectoral implications. In addition, implementation of sustainable development policies and mitigation measures should include special emphasis on the development of indigenous and local communities. The framework promoted capacity building for human resource development encompassing training, education, research and awareness raising as well as participatory and integrated approaches in planning and decision-making. The statements on forest-related mitigation measures included (AMCEN 2009):

- *Reduced emissions from deforestation and forest degradation (REDD): Including the development of market-based mechanisms to reward or provide incentives for forest conservation or the avoidance of deforestation and sustainable forest management practices¹⁵⁴.*

¹⁴⁹ Paragraph 4, p. 2.

¹⁵⁰ Paragraph 5, p. 2.

¹⁵¹ Paragraph 18, p. 3.

¹⁵² Paragraph 24, p. 3-4.

¹⁵³ Paragraph 25, p. 4.

¹⁵⁴ Paragraph 7b, Annex IV, p. 10.

- *Land use, land-use change and forestry: As the primary source of emissions in Africa, this represents one of the key areas for mitigation work in the continent, which includes best practices to enhance carbon sequestration and reduced emissions¹⁵⁵.*

6.5.2 Implications for capacity building

For the case of Ethiopia, the results of this assessment present the main implications of the AFLEG and AMCEN for institutional and human resource capacity building at WGCF-NR with an emphasis on 1) training and extension, 2) education and research and 3) new curriculum development for good forest governance and SFM. The results on training and extension are presented in Table 39 whereas the results about education and research and new curricula development are presented in Annex 15. For Southern Sudan, the results outline the main implications of the AFLEG and AMCEN for capacity building for good forest governance and especially in Renk County including the selected villages. The results on the implications of AFLEG for good forest governance are presented in Table 40 whereas the results on the AMCEN are presented in Annex 15.

The results on capacity building for training and extension services suggested that capacity building efforts should be focused on collective responsibility and participatory SFM practices for forest law enforcement and governance. Moreover, key focus areas were identified as climate change adaptation and mitigation partnerships including capacity-building, technology and knowledge transfer (e.g. regional and indigenous knowledge), full participation of all stakeholders and full involvement and empowerment of the civil society. Reduction of emissions from deforestation and forest degradation (REDD) as well as best mitigation practices to enhance carbon sequestration and reduced emissions in land use, land-use change and forestry were also among the new priority focus areas.

The results on capacity building for good forest governance suggested that national and local level development priorities comprise formulation of forest law and overall capacity building for forest law enforcement and governance that ensure effective partnerships and addressing illegal logging and related trade. Traditional and customary laws and practices as well as rights of indigenous peoples and local populations should be addressed in this context. Moreover, good forest governance and SFM should be used as standards including TFRK.

Furthermore, the results suggested that forest have a significant role in addressing climate change challenges, considering the potential offered by reduced emissions from deforestation and forest degradation (REDD) and best mitigation practices to enhance carbon sequestration and reduced emissions in land use, land-use change and forestry. Development priorities included the implementation of adaptation and mitigation efforts supported by finance, capacity building, technology transfer and participation of all stakeholders and by full involvement and empowerment of and partnership with the civil society. Moreover, indigenous knowledge should be applied and the development of indigenous and local communities through human resource capacity building and awareness raising should be promoted together with participatory and integrated approaches in planning and decision-making.

¹⁵⁵ Paragraph 7c, Annex IV, p. 10.

Table 39. Capacity building for training and extension services.

Training and extension services	What needs to be done (new focus areas)?
Good forest governance	<p>Partnerships for 1) Africa-EU cooperation (AFLEG) at all levels, 2) the implementation of international, regional and subregional agreements, 3) shared responsibility to address illegal logging and related trade, 4) the involvement of private sector and NGOs, 5) forest law enforcement and governance, 6) demonstration of SFM and legality, 7) the incorporation of traditional and customary laws and practices into the implementation of policy and legal instruments, 8) institutional capacity building including training and technology for forest law enforcement, 9) the access to legislation information for all stakeholders and 10) institutional reforms (good governance) and technical capacity building</p> <p>Collective responsibility, training of staff, civil society participation and participatory forest management practices for forest law enforcement and governance</p> <p>Financial mechanisms to support forest law enforcement and governance including 1) new development and trade partnerships and 2) application of international instruments within MEAs</p> <p>Stakeholder involvement in decision-making including local communities</p> <p>Rights of indigenous peoples and the right of local populations to participate in forest resource management</p> <p>Climate change adaptation and mitigation partnerships including 1) capacity-building, 2) technology and knowledge transfer (e.g. regional and indigenous knowledge), 3) full participation of all stakeholders and 4) full involvement and empowerment of civil society</p> <p>Best mitigation practices to enhance carbon sequestration and reduced emissions in land use, land-use change and forestry</p>
SFM	<p>Good forest governance, SFM and TFRK</p> <p>Reduction of emissions from deforestation and forest degradation (REDD)</p>

6.6 EU framework and capacity building in Ethiopia and Southern Sudan

6.6.1 Implications of EU forest policies for capacity building in Ethiopia

The results on the main implications of the EU forest policies for institutional and human resource capacity building at WGCF-NR with an emphasis on 1) training and extension, 2) education and research and 3) new curricula development for good forest governance and SFM are presented in this section. The results on capacity building for training and extension are presented in Table 41 whereas the results on education and research as well as new curriculum development are presented in Annex 16. The results suggest that the capacity building priorities for SFM comprise good governance for SFM, forest protection and forest law enforcement as well as the role of SFM in climate change adaptation and mitigation activities.

Table 40. Implications of AFLEG and AMCEN for good forest governance.

Good forest governance element	Development priorities
Multiple actors, levels and networks	<p>Africa-EU cooperation (AFLEG) including partnerships at all levels</p> <p>International, regional and subregional organisations and agreements</p> <p>Involvement of private sector and NGOs</p> <p>Shared responsibility of timber exporting and importing countries to address illegal logging and related trade</p>
NFPs, policies and laws (SFM)	<p>Forest law formulation and enforcement</p> <p>Consistent policies and demonstration of legal practices and SFM to promote market and trade development</p> <p>Consideration of the legitimate interests of all parts of society when developing forest legislation including addressing traditional and customary laws and practices</p> <p>Integration of forest law enforcement and governance into NFPs</p> <p>Legislation and policy reforms: 1) consolidation and harmonization to improve policies and fragmented legislation, to promote good governance and 2) access to legislation information by all stakeholders</p>
Standards and principles (SFM)	<p>Good forest governance and SFM</p> <p>The role of TFRK</p>
Decision-making and institutions	<p>Institutional reforms including good governance and technical capacity of the forest sector</p> <p>Institutional capacity building including training and technology for forest law enforcement.</p> <p>Involvement of stakeholders in decision-making in the forest sector including local communities</p> <p>Addressing illegal activities in the forest sector and re-establishment of good governance in post-conflict situations</p> <p>Rights of indigenous peoples and rights of local populations to participate in forest resource management</p> <p>The benefits of government-civil society partnerships</p>
Partnerships and participation (including TFRK)	<p>Capacity development and building of governments and civil society institutions to address forest law enforcement and governance in effective partnerships</p> <p>Development of financial mechanisms to support forest law enforcement and governance initiatives including new development and trade partnerships and application of international instruments within the MEAs</p> <p>Capacity-building for 1) government services for SFM (focus on forest law enforcement and governance), 2) forest services addressing forest law enforcement and governance</p> <p>Civil society participation in forest law enforcement and governance</p> <p>Training of staff for effective forest law enforcement and governance</p> <p>Participatory forest management practices to promote forest law enforcement and governance</p> <p>Collective responsibility in forest law enforcement and governance at local, national, regional and international levels</p>

The results on good forest governance suggest that the main capacity building priorities include a focus on the provision of wood, timber, non-wood and other forest products from legal sources and sustainably managed forests within a framework of legal, governance and technical systems to verify the legality of wood production in accordance with national laws. Moreover, key issues comprise consistent, clear and enforceable forest laws for SFM as well as technical and administrative logging and wood monitoring and tracking systems, best practices within supply chain management and the chain of custody, and voluntary licensing of operations and exports. Other issues include addressing illegal logging and the related international trade (FLEGT) and application of voluntary and market-based forest certification schemes consistent with the internationally agreed principles of SFM. In addition, public-private partnerships, information sharing and private sector initiatives for good practice in the forest sector (e.g. high standards in voluntary codes of conduct and sourcing of legal timber) as well as safeguard and risk management practices for financial institutions and investments are among the key focus areas.

6.6.2 Implications of the EU framework for capacity building in Ethiopia

This section presents the results on the main implications of the EU framework for institutional and human resource capacity building in WGCF-NR with an emphasis on 1) training and extension, 2) education and research and 3) new curriculum development for good forest governance and SFM. The key results on capacity building for training and extension are presented in Table 42 whereas the results on education and research and new curriculum development are presented in Annex 16. The results suggest that the new focus areas include SFM practices and community participation in forest management and conservation as well as the overall sustainable management, use and conservation of natural resources.

Moreover, new focus areas comprise sustainably produced wood through certification for SFM and forest products labelling, monitoring of deforestation, as well as climate change mitigation and adaptation measures with a focus on reduced emissions from deforestation and forest degradation. The key priority focus areas in good forest governance encompass combating illegal logging and trade in illegally harvested wood (FLEGT) as well as overall promotion of good governance and law enforcement and more comprehensive, integrated and cross-sectoral approaches to sustainable natural resources management. The key issues also comprise decentralization and the involvement of all partners and stakeholders as well as broad-based partnerships with a focus on customary tenure systems and local practices, and on land rights of women in customary and formal systems.

Table 41. Capacity building for training and extension services.

Training and extension services	What needs to be done (new focus areas)?
Good forest governance	<p>NFPs as frameworks for the implementation of international forest-related commitments including cross-sectoral coordination</p> <p>Wood, timber, non-wood and other forest products from legal sources and sustainably managed forests</p> <p>Legal, governance and technical systems to verify the legality of wood production in accordance with national laws</p> <p>Consistent, clear and enforceable forest laws for SFM</p> <p>Technical and administrative logging monitoring systems</p> <p>Voluntary licensing of operations and exports</p> <p>Voluntary and market-based forest certification schemes consistent with internationally agreed principles of SFM</p> <p>Capacity building for good governance and forest law enforcement</p> <p>Public-private partnerships, information sharing and addressing of underlying causes</p> <p>Wood tracking systems and best practices within supply chain management and the chain of custody</p> <p>Addressing illegal logging and related international trade (FLEGT)</p> <p>Improvement and reform of forest governance and overall transparency in the forest sector</p> <p>Private sector initiatives for good practice in the forest sector in line with the principles of corporate social responsibility including high standards in voluntary codes of conduct, sourcing of legal timber, transparent activities and independent monitoring</p> <p>Improved due diligence for clearly defined, legal and sustainable long-term timber supply</p> <p>Safeguard and risk management practices for financial institutions and investments including conformity with legislation, environmental and social impact assessments and codes of practice for forest sector projects</p> <p>Maintenance, conservation, restoration and enhancement of biological diversity of forests</p>
SFM	<p>Good governance for SFM, forest protection and forest law enforcement</p> <p>Multifunctional role of forests including their social, economic, environmental, ecological and cultural functions</p> <p>Application of the principles of sustainability</p> <p>Specific approaches and actions for different types of forest recognising the wide range of natural, social, economic and cultural conditions in them</p> <p>Implementation of SFM through secure property and land tenure rights</p> <p>SFM for climate change adaptation and mitigation: 1) carbon sinks and reservoirs, 2) reduced emissions from deforestation and forest degradation and 3) use of biomass and wood-based products</p>

Table 42. Capacity building for training and extension services.

Training and extension services	What needs to be done (new focus areas)?
Good forest governance	<p>Combating illegal logging and trade in illegally harvested wood (FLEGT)</p> <p>Comprehensive, integrated and cross-sectoral approaches to sustainable natural resources management</p> <p>Good governance and law enforcement</p> <p>Involvement of all partners and stakeholders</p> <p>Application of best available knowledge</p> <p>Sharing of good and best practices and monitoring of progress</p> <p>Safeguarding indigenous people's rights in development cooperation by ensuring their full participation</p> <p>Climate change mitigation and adaptation measures including broad participation</p> <p>Reduced emissions from deforestation and forest degradation</p> <p>Capacity-building and technology-transfer for climate change adaptation</p> <p>Decentralization and local government, decision-making and democracy; involvement of local communities and building of local capacity including community-based institutions</p> <p>Partnerships with non-State actors and local decentralised actors including 1) provision of information and consultation mechanisms, 2) implementation of cooperation projects and programmes, 3) dialogue, representation and strategic alliances, 4) provision of financial resources to support local development processes and capacity building</p> <p>Partnership including 1) institutional development, 2) knowledge-sharing, 3) exchange of best practices, 4) awareness raising, 5) capacity building and 6) technical assistance</p> <p>Secure, well-defined and enforceable land rights and appropriate access to land while recognizing the traditional and customary land tenure systems</p> <p>Customary tenure systems and local practices as a basis of development work</p> <p>Land rights of women in local, customary and formal systems</p>
SFM	<p>SFM practices and community participation in forest management and conservation</p> <p>Sustainable management, use and conservation of natural resources</p> <p>Monitoring of deforestation and reduced emissions from deforestation</p> <p>Application of criteria and design of resource-specific criteria to measure progress towards more sustainable management practices jointly with impact assessments</p> <p>Sustainably produced wood through certification for SFM and forest products labelling</p>

6.6.3 Implications of EU forest policies for capacity building in Southern Sudan

The results on the implications of the EU forest policies for capacity building for good forest governance are presented in Table 43. They suggest that capacity building efforts should focus on good governance for SFM, forest protection and forest law enforcement as well as on the implementation of measures to address illegal logging and the related international trade and on the role of SFM in addressing climate change challenges.

Moreover, development measures comprise NFPs as frameworks for the implementation of international forest-related commitments including cross-sectoral coordination and integration and for creation of legal, governance and technical systems to verify the legality of forest sector activities and various wood products. This involves the development and enforcement of consistent,

clear and enforceable forest laws for SFM and voluntary and market-based forest certification schemes in line with the internationally agreed principles of SFM.

6.6.4 Implications of the EU framework for capacity building in Southern Sudan

The results on the implications of EU framework for capacity building for good forest governance are presented in this part of the study. The summary results on capacity building for good forest governance are presented in Table 44. They suggest that the capacity building priorities comprise overall governance for sustainable development and enforcement-related laws as well as application of related instruments. Moreover, the priorities include measures to address illegal logging and the trade in illegally harvested timber (FLEGT), and the capacity building for SFM and forest protection.

The essential measures include governance reforms and decentralization with an emphasis on customary and traditional tenure systems and local practices. In addition, the main development priorities comprise partnerships and institutional development as well as application of best practices and the utilization of all relevant knowledge. The main issues also include measures for climate change adaptation and mitigation such as reduced emissions from deforestation and forest degradation as well as the overall application of the principles of sustainable development and good governance.

6.7 Global framework and capacity building in Ethiopia and Southern Sudan

6.7.1 Implications of the global framework for capacity building in Ethiopia

The implications of the global governance framework (NLBI, ITTA 2006, CBD, UNFCCC and UNFCCC) for institutional and human resource capacity building at WGCN-NR with an emphasis on 1) training and extension, 2) education and research and 3) new curricula development for good forest governance and SFM are presented in this part of the case study. The summary results on the implications of the global governance framework for capacity building for training and extension are presented in Table 45 and the comprehensive results are presented in Annex 17. The results suggest that the new focus areas include public-private-community partnerships for SFM including TFRK as well as forest law enforcement and governance and the application of best practices for SFM. Moreover, the key issues comprise international trade in tropical timber from sustainably managed and legally harvested forests and the conservation and sustainable use of biological diversity. Training and extension priorities also include participatory approaches for the conservation and sustainable use of natural resources as well as appropriate technology, knowledge, know-how and practices for combating desertification and they also focus on reduced emissions from deforestation and forest degradation.

Table 43. Implications of EU forest policies for good forest governance.

Good forest governance element	Development priorities
Multiple actors, levels and networks	A multifunctional role of forests including their social, economic, environmental, ecological and cultural functions Active participation in all international processes related to the forest sector
NFPs, policies and laws (SFM)	Development of NFPs as frameworks for the implementation of international forest-related commitments including cross-sectoral coordination Development of appropriate legal, governance and technical systems to verify the legality of wood production in accordance with national laws (wood producing partner countries) including 1) consistent, clear and enforceable forest laws for SFM, 2) technical and administrative logging monitoring systems and 3) voluntary licensing of operations and exports
Standards and principles (SFM)	Wood, timber, non-wood and other forest products from legal sources and sustainably managed forests Application of the principles of sustainability Credible, transparent, cost-efficient and open access and non-discriminatory voluntary and market-based forest certification schemes consistent with internationally agreed principles of SFM Implementation of innovative, integrated and effective approaches including 1) capacity building for good governance and forest law enforcement, 2) public-private partnerships, 3) public procurement policies and practices, 4) information sharing and addressing of underlying causes, 5) wood tracking systems and best practices within supply chain management and 6) the chain of custody Voluntary partnerships with wood-producing countries to address illegal logging and related international trade including improvement and reform of forest governance and overall transparency in the forest sector (FLEGT) Private sector initiatives for good practice in the forest sector in line with the principles of corporate social responsibility including high standards in voluntary codes of conduct, sourcing of legal timber, transparent activities and independent monitoring Improved due diligence for clearly defined, legal and sustainable long-term timber supply
Decision-making and institutions	Good governance for SFM, forest protection and forest law enforcement Better integration of forests and forest products into sectoral policies Specific approaches and actions for different types of forest recognising the wide range of natural, social, economic and cultural conditions of the forests Implementation of SFM through secure property and land tenure rights Safeguards and risk management practices for financial institutions and investments including conformity with legislation, environmental and social impact assessments and codes of practice for forest sector projects SFM for climate change adaptation and mitigation: 1) carbon sinks and reservoirs, 2) reduced emissions from deforestation and forest degradation and 3) use of biomass and wood-based products
Partnerships and participation (including TFRK)	Development co-operation with focus on 1) equitable and just solutions to the illegal logging problem which do not have adverse impact on poor people, 2) assistance to partner countries to build systems for verifying timber sources (including transparent forest sector information), and 3) capacity building for partner country governments and civil society (including implementation of governance and forest law and policy reforms) and 4) promoting policy reform

Table 44. Implications of the EU framework for good forest governance.

Good forest governance element	Development priorities
Multiple actors, levels and networks	Global governance for sustainable development and for effective development assistance and co-operation
NFPs, policies and laws (SFM)	Implementation of SFM and forest protection through NFPs Good governance and enforcement of clear and effective laws that support sustainable development Multiple instruments such as regulations, incentives and market-based instruments for sustainable development Integration of climate change mitigation and adaptation measures into development policies
Standards and principles (SFM)	SFM practices and community participation in forest management and conservation Sustainable management, use and conservation of natural resources Combating illegal logging and the trade in illegally harvested wood (FLEGT) Application of the principles of 1) sustainable development, 2) prudent and rational utilisation of natural resources, 3) democracy, 4) respect for human rights, 5) fundamental freedoms, 6) the rule of law, 7) high level of protection and improvement of the quality of the environment, 8) protection of human health, 9) liberty and 10) promotion of measures at international level to deal with regional or worldwide environmental problems Principles of good governance for global responsibilities: openness, participation, accountability, effectiveness and coherence
Decision-making and institutions	Application of the guiding principles for sustainable development policy: 1) promotion and protection of fundamental rights, 2) solidarity within and between generations, 3) open and democratic society, 4) involvement of citizens, businesses and social partners, 5) policy coherence and governance, 6) policy integration, 7) use of best available knowledge, 8) the precautionary principle and 9) the polluter-pays principle Comprehensive, integrated and cross-sectoral approaches to sustainable natural resources management and climate change Secure, well-defined and enforceable land rights and appropriate access to land including traditional and customary land tenure systems Decentralization and local government, decision-making and democracy as well as involvement of local communities and building of local capacity including community-based institutions Customary tenure systems and local practices as a basis of development work Land rights of women in local, customary and formal systems Application of strategic environmental assessments (SEA) and environmental impact assessments (EIA)
Partnerships and participation (including TFRK)	Partnerships including institutional development, knowledge-sharing, exchange of best practices, awareness raising, capacity building and technical assistance Safeguarding indigenous people's rights in development cooperation by ensuring their full participation and free and prior informed consent of the concerned communities Effective action on climate change including reversing the emissions from deforestation and promotion of sustainable and efficient forest policy to enhance the contribution of forests to the overall reduction of emissions Capacity-building and technology-transfer for climate change adaptation

Table 45. Capacity building for training and extension services.

Training and extension services	What needs to be done (new focus areas)?
Good forest governance	<p>Forest law enforcement and governance</p> <p>Addressing illegal logging and related trade in tropical timber</p> <p>International trade in tropical timber from sustainably managed and legally harvested forests</p> <p>Voluntary instruments for SFM and forest products from sustainably managed forests</p> <p>Public awareness programmes on the conservation and sustainable use of biological diversity</p> <p>Training field agents and members of rural organizations in participatory approaches for conservation and sustainable use of natural resources</p> <p>Exchange of information on appropriate technology, knowledge, know-how and on practices for combating desertification</p> <p>Regulation or management of biological resources important for the conservation of biological diversity whether within or outside protected areas, with a view of ensuring their conservation and sustainable use</p> <p>Encouragement of active decentralization, devolving responsibility for management and decision-making to local authorities and encouraging initiatives and assumption of responsibility by local communities; establishment of local structures for combating desertification</p> <p>Environmental impact assessments</p> <p>Respect, preservation and maintenance of the knowledge, innovations and practices of indigenous and local communities relevant for conservation and sustainable use of biological diversity</p> <p>Training field agents and members of rural organizations in participatory approaches for conservation and sustainable use of natural resources</p> <p>Education and public awareness for efforts to combat desertification and mitigate the effects of drought including full participation of all levels of local people</p>
SFM	<p>Public-private-community partnerships for SFM including TFRK</p> <p>Development and implementation of appropriate training, extension and awareness raising measures for SFM</p> <p>Forest law enforcement and good governance at all levels</p> <p>C&I for SFM including TFRK</p> <p>Access to and transfer of environmentally sound and innovative technologies and knowhow related to SFM</p> <p>Sharing and use of best practices for SFM</p> <p>Incentives for SFM and forest protection</p> <p>Monitoring, assessment and reporting of progress towards SFM</p> <p>Recognition of the role of forest-dependent indigenous and local communities in achieving SFM and development of strategies to enhance the capacity of these communities to sustainably manage tropical timber producing forests</p> <p>Reduced emissions from deforestation and forest degradation</p>

6.7.2 Implications of the global framework for capacity building in Southern Sudan

The summary results on the implications of the global governance framework (NLBI, ITTA 2006, CBD, UNFCCC and UNFCCC) for capacity building for good forest governance are presented in Table 46 and the comprehensive results are presented in Annex 18. The results suggest that the main development priorities include capacity building for SFM, good forest governance and forest law enforcement and governance at all levels as well as an urgent need to address deforestation and forest degradation. Moreover, forest protection, afforestation and reforestation should be widely promoted. The key issues also comprise exports based on sustainably produced and legally sourced timber and good governance.

The main development priorities comprise the conservation and sustainable use of biological diversity including a focus on the dependence of many indigenous and local communities on biological resources as well as on equitable sharing of benefits from the use of traditional knowledge, innovations and practices related to biological diversity and the sustainable use of its components. In addition, the key capacity building focus areas in addressing climate change challenges include reduced emissions from deforestation and forest degradation jointly with appropriate institutional development, technology transfer, demonstration activities and conservation and enhancement of forest carbon stocks while ensuring full and effective engagement of indigenous peoples and local communities. Furthermore, the key capacity building priorities comprise combating desertification and mitigation of the effects of drought using integrated approaches to land productivity and to the rehabilitation, conservation and sustainable management of land and water resources.

Table 46. Implications of the global governance framework for good forest governance.

Good forest governance element	Development priorities
Multiple actors, levels and networks	<p>Development and implementation of appropriate training, extension, education and awareness raising measures for SFM</p> <p>Expansion and diversification of international trade in tropical timber from sustainably managed and legally harvested forests</p> <p>Cooperation between governmental authorities and the private sector in developing approaches to sustainable use of biological resources</p> <p>Obligation of African countries to 1) promote regional cooperation and integration in programmes and activities and 2) promote exchange of information on appropriate technology, knowledge, know-how and practices between them for combating desertification</p>
NFPs, policies and laws (SFM)	<p>Drafting and enforcement of new forest laws for SFM</p> <p>Forest law enforcement and good governance at all levels</p> <p>Regulation or management of conservation and sustainable use of biological resources</p> <p>NAPs for combating desertification to encourage active decentralization, devolving the responsibility for management and decision-making to local authorities, encouraging initiatives and the assumption of responsibility by local communities, and for the establishment of local structures</p>
Standards and principles (SFM)	<p>Forest law enforcement and good governance at all levels</p> <p>Forest products from sustainably managed and legally harvested forests</p> <p>Combating illicit international trafficking in forest products and addressing forest-related illegal practices</p> <p>Sharing and use of best practices for SFM including TFRK</p> <p>C&I and incentives for SFM and forest protection including TFRK</p> <p>Environmental impact assessments</p> <p>Voluntary instruments for forest products from sustainably managed forests</p> <p>Reduced carbon emissions from deforestation and forest degradation</p> <p>Sustainable use of the components of biological diversity</p>
Decision-making and institutions	<p>Local level institutions and cross-sectoral policy integration and coordination</p> <p>Monitoring, assessment and reporting of progress towards SFM</p> <p>Incorporation of scientific expertise into SFM</p> <p>Integration of conservation and sustainable use of biological resources into national decision-making</p> <p>Obligation of African countries to 1) rationalize and strengthen the existing institutions concerned with desertification and drought, 2) involve other existing institutions to make them more effective and to ensure more efficient use of resources and 3) implement reforms in progress towards greater decentralization and improved resource tenure for combating desertification</p>
Partnerships and participation (including TFRK)	<p>Public-private-community partnerships for SFM including TFRK</p> <p>Local governance and institutions (TFRK and customary and traditional systems)</p> <p>Respect, preservation and maintenance of knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biological diversity</p> <p>Use and dissemination of the knowledge, know-how and practices of local people in technical cooperation programmes for combating desertification</p> <p>Training of field agents and members of rural organizations in participatory approaches for the conservation and sustainable use of natural resources</p>

7. Discussion

7.1 Global and EU governance for SFM

The results of the present study suggest that the global governance framework promotes the establishment of good forest governance to support the achievement of SFM in line with sustainable development. Moreover, the results suggest that the EU promotes sustainable development in Africa encompassing good governance, institutional development, sustainable natural resources management and overall environmental sustainability. Moreover, the EU contributes to the advancement of the rule of law and the respect for international law.

The NLBI is the most important global instrument for SFM and good forest governance and it has implications at all levels. The implications of the NLBI for capacity building comprise a focus on SFM, good forest governance, and on forest protection, for instance, through increased reforestation and afforestation measures. Moreover, priority issues include international trade in forest products from sustainably and legally managed forests, and forest law enforcement and good governance at all levels.

The findings suggest that the implications of the ITTA 2006 for capacity building for SFM and good forest governance encompass promotion of international trade in tropical timber from sustainably managed and legally harvested forests with a focus on SFM, forest law enforcement, good forest governance, addressing illegal logging and related trade in tropical timber, clear land tenure arrangements, and cross-sectoral coordination. Moreover, priority issues also comprise collaboration between members of the agreement, international organizations, the private sector, civil society (for indigenous and local communities) and other stakeholders, and more focus on capacity building of local and forest-dependent communities.

Furthermore, the implications of the UNFCCC and the Kyoto Protocol for capacity building for SFM and good forest governance comprise a focus on the role of forests within CDM, JI and REDD+ projects for sustainable development with an emphasis on reduced emissions from deforestation and forest degradation in developing countries. This involves the establishment of SFM and good forest governance practices including community-based systems and the involvement of indigenous peoples (with due respect to customary laws, norms and practices), and increased forest protection, afforestation and reforestation measures. Moreover, the implications of the IPF/IFF Proposals for Action for capacity building for SFM and good forest governance encompass the establishment of appropriate frameworks for SFM such as NFPs, combating deforestation and forest degradation, and a focus on the role of TFRK, and addressing underlying causes of deforestation and forest degradation. Moreover, the key issues in this context comprise financial assistance, technology transfer and capacity-building such as training and extension for SFM.

The results of the present study suggest that the implications of the CBD for capacity building for SFM and good forest governance comprise the integration of these focus areas into the conservation and sustainable use of biological diversity and the establishment of appropriate protected forest areas. Moreover, customary use of biological resources in accordance with traditional cultural practices should be encouraged and protected. The maintenance and wider application of knowledge, innovations and practices of indigenous and local communities related to the conservation and sustainable use of biological diversity are also essential development priorities.

The findings suggest that the implications of the UNFCCC for capacity building for SFM and good forest governance comprise combating desertification and mitigation of the effects of drought by forest-related measures in affected countries such as SFM practices with full participation of local communities and addressing deforestation and the promotion of afforestation and reforestation activities with participatory and community-based approaches. Moreover, the focus areas encompass decentralization, devolved management responsibilities and decision-making, as well as support to the involvement of local communities and to the establishment of local governance and management systems. The responsibilities of developed countries comprise the establishment of an enabling environment through strengthening of the existing legislation and the development of new laws and through the establishment of long-term policies and action programmes. Moreover, the obligations comprise institutional development and reforms to ensure effectiveness and efficient use of resources with a focus on decentralization and resource tenure.

The findings of this study support the conclusions of previous studies (Hempel 1996; Cable 1999; Keohane and Nye Jr. 2000; Alger 2001; Clark 2001; McGrew 2001; Taylor and Curtis 2001; Nayyar and Court 2002; Held and McGrew 2003; Keohane 2003; Woods 2003; Karns and Mingst 2004; Kirton and Trebilcock 2004; Marks and Hooghe 2004; Rittberger and Zangl 2006; Speth and Haas 2006) on the multilevel, network and formal and informal institutional nature of global governance with multiple actors and implementation of laws and rules at all levels (from the global to the local), and with acknowledgement of related shared goals, problems, standards and principles.

Moreover, effective governance and management require integrated approaches with broad participation and agreed principles and with adaptive institutions that can react to changing conditions (cf. Greene 1996;2001; Brady 2005). The findings also support the statements of Grindle (2000) and Howlett and Ramesh (1995) on the impact of new governance institutions and international regimes on national level institutions and policymaking. Moreover, the results suggest that SFM and good forest governance are key elements of the international forest regime (as a normative system for forest governance and management) which may be called principles, norms and rules and which have implications for decision-making and institutional arrangements. This is also in line with previous conclusions (Krasner 1982; Gehring 1994; Weiss et al. 1994; Greene 1996; 2001; Keohane 2005; Rittberger and Zangl 2006). In addition, international regimes can promote international governance and management in addition to MEAs and international law as suggested by Ebbesson (1996).

The findings of this study also support the statements of previous authors on the fundamental role of the concept of sustainable development within the global framework encompassing governance, policy and legal aspects and sustainable use of natural resources, SFM and good forest governance. (cf. Ginther and De Waart 1995; Hossain 1995; Lang 1995; Reid 1995; Ebbesson 1996; Basse 1997; Bugge 1997; Lafferty and Langhelle 1999; Rao 2000; Paradell-Trius 2000; Birnie and Boyle 2002; Dresner 2002; Brownlie 2003; Sands 2003; Baker 2006; Bell and McGillivray 2006; Elliot 2006; Segger et al. 2006; Segger and Khalfan 2006)

Furthermore, previous studies on the role of the UN system and other international and regional (such as the EU) organizations in the development and implementation of both international law and global governance, for instance, through the creation of new policies, standards, codes of conduct and legal obligations are supported by the findings of this study (cf. Schermers and Blokker 1995; Amerasinghe 1996; Liberatore 1997; Hogl 1999; Archer 2001; Emmerij et al. 2001; Reaus-Smith 2001; Klabbers 2002; Akande 2003; Brownlie 2003; Sands 2003; Seppänen 2003; Fairbrass and Jordan 2004; Amerasinghe 2005; Ekroos 2005; Smith 2005; Brownsword and Lewis 2006; Maduro 2006; Rittberger and Zangl 2006).

International instruments on SFM and good forest governance (such as the NLBI and codes of best practice, decisions, declarations, directives, principles, recommendations, resolutions, standards, strategies and statements) have become a part of international and regional (such as the EU) law as suggested by previous reviews (Skala-Kuhmann 1996; Ulfstein 1997; Chinkin 1998; Humphreys 2001; Birnie and Boyle 2002; Weiss 2002; Fitzmaurice 2003; Redgwell 2003; Sands 2003; Shelton 2003; Karns and Mingst 2004; Cassese 2005; Joyner 2005; Bell and McGillivray 2006; Trubek et al. 2006; Birnie et al. 2009) derived from a range of sources related to modern international law in the fields of sustainable development, natural resources and the environment.

Findings of the present study are also in accordance with previous analyses that have established that global, regional (EU) and national levels form a multilevel policy and legal framework for SFM (cf. Kiss and Shelton 1997; Tikkanen and Pajari 1998; Tikkanen et al. 2002; Schmithüsen 2003a;b; Bauer et al. 2004; Jokela 2004; Schmithüsen 2004a;b; Jokela 2006). This seems to be true for the multiple levels of good forest governance within the global governance framework. The close linkage between the principles of sustainable development and SFM on the one hand and good forest governance on the other is essential in this context and particularly for the development of new forest laws.

The EU system is a regional framework which is part of a global one and has significant implications for the development policies of the EU as a whole and for the Member States, also including the partnerships in Africa. The implications of the EU framework for capacity building for SFM and good forest governance encompass ensuring sustainable development (with clear and effective laws and a focus on sustainable use of natural resources), good forest governance, forest law enforcement, best forestry practices, comprehensive, integrated and cross-sectoral approaches, environmental protection, participation of communities and indigenous peoples, and involvement of all stakeholders.

The EU advocates SFM through the implementation of the FLEGT which encompasses voluntary partnerships with wood-producing countries to address illegal logging and the related international trade, with a focus on the improvement and reform of forest governance and of the overall transparency in the forest sector. The EU also highlights that wood, timber, non-wood and other forest products should be derived from legal sources and sustainably managed forests. In addition, the EU stresses the importance of NFPs for ensuring SFM and the role of reduced emissions from deforestation and forest degradation in the context of addressing climate change with appropriate adaptation and mitigation measures at all levels. Local and decentralized governance is emphasized in the context of sustainable rural development with a focus on customary traditional rights, systems and practices. Moreover, secure, well-defined and enforceable land rights and access to land as well as the establishment of links between statutory laws and rights on the one hand and local practice and customary rights on the other are among the EU development priorities.

7.2 Good forest governance

The NLBI is a global instrument for SFM and good forest governance and it has implications at all levels. The implications of the NLBI for capacity building for good forest governance comprise a focus on the role of forest law enforcement and good forest governance at all levels and on the international trade in forest products derived from sustainably and legally managed forests. The implications of the ITTA 2006 for capacity building for good forest governance include ensuring international trade in tropical timber derived from sustainably managed and legally harvested forests with a focus on forest law enforcement and governance, addressing illegal logging and related trade in tropical timber, good governance, clear land tenure arrangements and cross-sectoral coordination. Moreover, the implications of the IPF/IFF Proposals for Action for capacity building for good forest governance comprise the establishment of appropriate frameworks such as NFPs and a focus on the role of TFRK, capacity-building and training and extension for SFM.

The present findings suggest that the implications of the UNFCCC and the Kyoto Protocol for capacity building for good forest governance encompass the establishment of good forest governance practices within CDM, JI and REDD+ projects for sustainable development with community-based management systems and with due regard to customary law, norms and practices and the involvement of indigenous people. In addition, the implications of the CBD for capacity building comprise the integration of conservation and sustainable use of biological diversity into good forest governance, particularly with respect to customary use of biological resources in accordance with traditional cultural practices and to wider application of knowledge, innovations and practices of indigenous and local communities on the conservation and sustainable use of biological diversity. Furthermore, the implications of the UNFCCC for capacity building for good forest governance comprise combating desertification and mitigation of the effects of drought through the establishment of appropriate local forest governance systems with responsibilities, knowledge, know-how and practices of local people.

Previous studies have emphasized the implications of the multilevel international framework (encompassing global governance and an international forest regime) and of its principles such as sustainable development, SFM and good forest governance for national and local level forest policy and management (Westoby 1987; Maini and Schmithüsen 1991; Humphreys 1996; Skala-Kuhmann 1996; Glück et al. 1997; Tarasofsky 1999a,b; Glück 2000; Humphreys 2001; Le Master et al. 2002; Virtanen and Palmujoki 2002; Humphreys 2003; Le Master 2003; Schmithüsen 2003a; Bernstein and Cashore 2004; Schmithüsen 2004a,b; Glück et al. 2005; Humphreys 2005; Kant and Berry 2005b; Humphreys 2006; Jokela 2006). The findings of the present study support these results and attempts to further contribute to the understanding of the global and multilevel nature of good forest governance and SFM and their recognition within multiple international instruments. Moreover, the present results support the conclusions of previous studies on the need to integrate SFM and community-based natural resources management into new governance arrangements with decentralized decision-making and institutional structures (Nelson et al. 2003; Glück et al. 2005; Mery et al. 2005a,b; Larson and Ribot 2007; Cronkleton et al. 2008; Larson and Soto 2008).

Previous studies have suggested that a global forest convention could provide an umbrella for addressing SFM in a comprehensive, consistent and integrated way within the overall global framework and in line with the principles of sustainable development (Maini 1991;1992;1995; Schmithüsen 1996; VanderZwaag and Mackinlay 1996; Bass and Thomson 1997; Maini 1997; Kaarakka and Holmberg 1998; Glück 2000; Ekroos 2005; Humphreys 2005;2006). Since then, the NLBI has been agreed upon internationally and it is the main global instrument on forests and SFM. The findings of the present investigation concur with the arguments presented in previous studies on

the need for a more comprehensive and integrated global framework for forest policy, law and governance and for SFM with internationally agreed goals, standards and principles.

In general, the findings of the present study suggest that capacity building for good forest governance requires the building of networks and involvement of various actors and stakeholders at multiple levels, and a focus on clear and effective law and policy with appropriate standards and principles. Moreover, the development priorities in this field encompass a focus on informed decision-making and on related institutions, and on broad partnerships, participatory approaches and increased extension, training and education efforts.

7.3 Sustainable forest management

The NLBI is the most important global instrument for the forest sector and it has implications for SFM at all levels, and especially for the local-level capacity building. The implications of the NLBI for capacity building comprise the establishment of SFM as the main management framework and an emphasis on international trade in forest products derived from sustainably and legally managed forests. Moreover, the NLBI advocates forest law enforcement and good forests governance at all levels. The implications of the ITTA 2006 for capacity building for SFM encompass ensuring international trade in tropical timber derived from sustainably managed and legally harvested forests with a focus on SFM, forest law enforcement, good forest governance and addressing illegal logging and related trade in tropical timber, and capacity building in local and forest-dependent communities.

The findings suggest that the implications of the IPF/IFF Proposals for Action for capacity building for SFM encompass the establishment of appropriate frameworks for SFM such as NFPs and combating deforestation and forest degradation, and a focus on the role of TFRK and on addressing the underlying causes of deforestation and forest degradation. Moreover, the development priorities in this context comprise financial assistance, technology transfer and capacity-building such as training and extension for SFM.

The implications of the UNFCCC and the Kyoto Protocol for capacity building for SFM include a focus on the role of forests within CDM, JI and REDD+ projects, especially for reduced emissions from deforestation and forest degradation in developing countries. This includes the establishment of SFM practices with community-based systems and the involvement of indigenous people, their customary laws, norms and practices, as well as increased forest protection, afforestation and reforestation efforts.

Furthermore, the findings of this study suggest that the key implications of the CBD for capacity building in SFM include the integration of the conservation and sustainable use of biological diversity into decision-making on and implementation of SFM as well as the establishment of new protected forest areas. Moreover, customary use of biological resources in line with traditional cultural practices should be promoted jointly with a wider application of the knowledge, innovations and practices of indigenous and local communities related to the conservation and sustainable use of biological diversity. In addition, the main implications of the UNFCCC for capacity building about SFM comprise combating desertification and mitigation of the effects of drought through SFM practices especially in African countries, including full participation of the local communities and addressing deforestation by promotion of afforestation and reforestation measures. Moreover, key development priorities include the promotion of local management

responsibilities and systems, including the application of the knowledge, know-how and practices of local people.

The findings of this study support the conclusions of previous authors on the importance of the international and regional policy and legal frameworks for SFM including partnerships and broad stakeholder participation (cf. Maini and Schmithüsen 1991; Rametsteiner 2001; Schmithüsen 2003a;2003b; Hickey 2004). Moreover, the findings of this study support the statements of previous writings on the role of sustainable development as the key principle within SFM, good forest governance and new forest policies and laws as well as on the significance of MEAs and other international instruments in this field (cf. De Montalembert and Schmithüsen 1993;1994; De Montalembert 1995; Brunnée 1996; Szaro et al. 2000; Wilkie 2003; Schmithüsen 2004a;b; Hickey and Innes 2005; Kant and Berry 2005a).

In general, capacity building for SFM requires focus on all its elements, i.e. the legal, policy and institutional framework which includes good forest governance aspects as well as the extent of forest resources (afforestation, reforestation and combating deforestation and forest degradation). Other relevant aspects include the forest's biological diversity and forest health and vitality, the productive functions of forest resources (with forest products from sustainably managed and legally harvested forests), protective functions of forest resources (in combating desertification and mitigation of the effects of drought), as well as the socio-economic functions of the forest (for sustainable rural development and poverty reduction).

7.4 Capacity building in Ethiopia

The present results obtained on the key capacity-building focus areas support the conclusions of previous studies and assessments on sustainable development in Ethiopia, these previous analyses have highlighted, for instance, the need to develop sustainable management practices and to address deforestation, and to promote local governance based on specific local management systems and practices (cf. Taddese 2001; Yirdaw 2001; Yirdaw and Luukkanen 2003; Bekele 2008). Moreover, the present study identified that the new focus areas encompass good governance and linking of SFM to sustainable agricultural development as well as institutional and human resource capacity building to promote overall sustainable development including poverty reduction. New issues also include effective implementation of MEAs and federal and regional environmental laws, policies, strategies and action plans.

The present findings suggest that the main implications of a global framework for institutional and human resource capacity building for good forest governance in Ethiopia include a focus on forest law enforcement and governance; addressing illegal logging and related trade in tropical timber; international trade in tropical timber from sustainably managed and legally harvested forests; the conservation and sustainable use of forest biological diversity; reduced emissions from deforestation and forest degradation; appropriate technology, knowledge, know-how and practices for combating desertification; as well as local responsibilities, governance, management and decision-making, and application of knowledge, innovations and practices of indigenous and local communities.

Key focus areas in Ethiopia that were also highlighted by previous studies comprise enforcement of forest legislation, implementation of forest policies, and balancing of local community interests and State development objectives with a focus on participatory approaches, community-based institutions and TFRK (cf. Bekele 2008). Moreover, capacity building activities should be linked

with secure land tenure and biodiversity management in the context of SFM (cf. Taddese 2001; Yirdaw 2001; Yirdaw and Luukkanen 2003).

Furthermore, the implications of a global framework for institutional and human resource capacity building in SFM encompass public-private-community partnerships for SFM including TFRK; development and implementation of appropriate training, extension and awareness raising measures for SFM; forest law enforcement and good governance at all levels; C&I for SFM including TFRK; best practices for SFM; the role of forest-dependent indigenous and local communities in achieving SFM; reduced emissions from deforestation and forest degradation; conservation and sustainable use of the forest biological diversity; appropriate technology, knowledge, know-how and practices for combating desertification; as well as local management responsibilities and the application of the knowledge, innovations and practices of indigenous and local communities.

The findings of this study suggest that the main implications of the EU framework for institutional and human resource capacity building about good forest governance include focus on NFPs as frameworks for the implementation of international forest-related commitments, on wood, timber, non-wood and other forest products derived from legal sources and sustainably managed forests, on legal, governance and technical systems to verify the legality of wood production in accordance with national laws, and on consistent, clear and enforceable forest laws for SFM. Moreover, the new focus areas comprise capacity building for good governance and forest law enforcement and improvement and reform of forest governance as well as combating illegal logging and trade in illegally harvested wood. Specifically, the new focus areas include institutional and human resource capacity building for SFM practices as well as community participation in forest management and conservation through secure property and land tenure rights. Moreover, they comprise sustainably produced wood through certification of SFM and forest products labelling as well as using SFM as a tool for climate change adaptation and mitigation including carbon sinks and reservoirs; this highlights the role of reduced emissions from deforestation and forest degradation and use of biomass and wood-based products. All EU policies and instruments put an emphasis on the importance of partnerships and full participation of local communities and peoples.

The present results suggest that the implications of the AFLEG and AMCEN frameworks for institutional and human resource capacity building for good forest governance and SFM in Ethiopia include new focus on the establishment of good governance and on the development and implementation of new forest laws. Moreover, the focus is on forest law enforcement and governance in effective partnerships as well as on combating illegal logging and illegality in the forest sector; on the rights and participation of indigenous and local people and on the involvement of private sector and NGOs. The new priority areas also comprise SFM and forest protection as well as the reduction of emissions from deforestation and forest degradation as well as the application of indigenous knowledge in sustainable natural resources management. In addition, all focus areas include an emphasis on partnerships and full participation and involvement of stakeholders including the local and indigenous communities and taking into account the traditional and customary laws and practices.

The implications of Ethiopia's policy and legal framework for institutional and human resource capacity building at WGCF-NR put new emphasis on 1) training and extension, 2) education and research and 3) new curriculum development on SFM with a focus on training the trainers and extension services for local communities and private forest owners. This would highlight innovative practices for protection of forest ecosystems and SFM as the basis for planning and decision-making based on local conditions, stakeholder consultation and indigenous knowledge systems. Moreover, the new focus areas comprise the sustainable use, management and conservation of

biodiversity, effective public-private-civil society partnerships, joint natural resources management, sound ecological principles, scientifically valid information, equitable sharing of costs and benefits; as well as combating deforestation, environmental and land degradation, soil erosion and desertification, and addressing the issues of overgrazing issues; protection of endangered indigenous species and prevention of forest fires.

The implications of the Ethiopia-EU cooperation for capacity building in SFM and good forest governance at WGCF-NR include a focus on sustainable development and good governance as well as on sustainable natural resources management, participatory natural resource management systems and projects involving various local actors with forestry/pastoralist/agriculture based livelihoods. This also implies consideration of environmental protection, institutional capacity building, participation of non-state actors in development and empowerment of the civil society and democratic institutions that ensure citizen's participation, transparency and accountability in service delivery.

Finally, the implications of the forest law of Ethiopia for capacity building in SFM and good forest governance at WGCF-NR include a focus on SFM, forest management planning, forest ownership (specifically demarcation of permanent forest areas), local benefits from forest development, forest certification and forest conservation as well as on combating soil erosion and desertification. Moreover, the use of forest guards and the better control of prohibited activities and the forest products trade as well as participation and benefit sharing by the local communities are among the essential development priorities. Other key issues comprise certification of transport and storage of forest products; protection and re-introduction of endangered indigenous species; conservation of biodiversity and wildlife in general; protection of all forests from fire, pests, diseases and other disasters; and conservation of unique and representative habitats or natural resources because of their cultural and recreational values.

7.5 Capacity building in Southern Sudan

The results of village interviews and group discussions verified that deforestation and forest and land degradation are significant problems in northern parts of Renk County in Upper Nile State jointly with many other major sustainable development challenges. Moreover, there is a severe lack of good forest and natural resources governance as well as of implementation of SFM practices. The new forest policy framework is not implemented at the field level and there is a critical need to develop and enforce a new forest law for SFM. In general, the results show that there is a need for both institutional and human resource capacity building jointly with relevant transfer of technology and provision of necessary financial and material resources. Public-private-community partnerships as well as promotion of local governance, TFRK, customary and traditional practices, and community participation are especially needed to promote overall sustainable development including good forest governance and SFM.

Findings of the present study support the conclusions of previous studies on Sudan as a whole (cf. Glover 2005; Eskonheimo 2006; Hares et al. 2006; Luukkanen et al. 2006) on the need for more focus on meeting the basic needs of local communities in a sustainable manner. This involves the maintenance and improvement of local livelihoods and increased capacity building aiming at increased productivity of croplands, more land for tree planting and generation of new income opportunities. Moreover, the results particularly indicate that local people prefer participatory and sustainable forest management practices aimed at meeting the essential livelihood and also that development priorities encompass partnerships between public and private actors in forest-sector

development, forestry extension, tree planting on farms, local level regimes for sustainable resource management and the establishment of new community-managed forests (cf. Glover 2005; Luukkanen et al. 2006).

Moreover, the results of the village discussions and interviews clearly show that forest management is currently not sustainable in the northern parts of Renk County and that there are growing difficulties to meet the demand for wood. On the other hand, people appreciated their trees and especially the multipurpose trees and wanted to plant more trees on farms and grazing lands. The lack of sustainable management practices was also an issue in the context of other natural resources which highlighted a continuous overall decline in resource supply. Moreover, environmental and land degradation including a decreasing land productivity were considered to be significant problems, often with reference to the threats of climate change.

The findings of the present study support the conclusions by Onak (2005) specifically related to Southern Sudan, on the need for forest law and its enforcement and for SFM, with a focus on community-based forest management approaches. Moreover, the findings are also in line with previous studies, mainly on Sudan as a whole, that have highlighted the need for capacity building and institutional strengthening for SFM and for related governance arrangements such as new partnerships, particularly at the local level (ElNasri 2000; UNFF 2003; USAID 2003; Evans and Turnbull 2004; UNFF 2004a; Hares et al. 2006; Adam 2007; Laxen 2007; Pantuliano 2007; UNEP 2007; USAID 2007; FAO 2008a;b; USAID 2008; LAMPTESS 2009; UNDP 2009b).

In general, it was found that the local communities considered that they owned or in any case controlled the lands they utilized, although the land tenure and ownership issues were not settled. The villagers were not aware of the latest forest policies or regulations, but a few communities were aware of the old 5 or 10% tree cover rule although it was not implemented. No one seemed to be responsible for forest law enforcement and there were virtually no contacts between the forest authorities and the local communities on this matter or in general, concerning good governance and sustainable management. The results suggest, however, that the local communities wanted to implement SFM, enforce the forest law, plant more trees and establish good forest governance if provided with necessary support and resources.

Results of the interviews and group discussions with the villagers in the northern parts of Renk County and with the Renk County authorities suggest that SFM is a major development priority together with overall sustainable natural resources management and combating deforestation and forest degradation. This includes the enforcement of the 5 or 10% tree cover on all lands. Moreover, priorities comprised addressing land and environmental degradation and desertification as well as the implementation of climate change mitigation and adaptation measures. The land use and ownership issues also seem to require clearer and more long-term approaches in order to promote sustainable rural development. The main governance issues included the critical need for a forest law for SFM and its enforcement as well as guidelines for SFM and good forest governance practices. Moreover, the critical needs included the establishment of public-private-community partnerships with good working relations between the local communities and forest officials as well as provisions of appropriate materials and resources. In addition, they included extension and training services to promote sustainable rural development with SFM. Capacity building efforts among all actors and stakeholders were also among the key sustainable development priorities.

The implications of the global framework for capacity building in SFM and good forest governance in Southern Sudan include, as the most important issue, the drafting and enforcement of a new

forest law for SFM and public-private-community partnerships for SFM including TFRK and local governance and institutions (TFRK and customary and traditional systems). Moreover, the main priorities comprise training, extension, education and awareness raising measures for SFM; international trade in tropical timber and forest products from sustainably managed and legally harvested forests; combating illicit international trafficking in forest products and addressing forest-related illegal practices; sharing and use of best practices for SFM including TFRK; C&I and incentives for SFM and forest protection; the sustainable use and protection of forest biological resources; technology, knowledge, know-how and practices to combat desertification; decentralized and devolved local management responsibilities and systems, as well as reduced greenhouse gas emissions from deforestation and forest degradation.

The findings of this study suggest that the main implications of the EU framework for capacity building for good forest governance and SFM in Southern Sudan include a focus on NFPs as frameworks for the implementation of international forest-related commitments and for development of legal, governance and technical systems to verify the legality of forest sector activities and various wood products. Moreover, the key focus areas comprise good governance for SFM, forest protection and forest law enforcement, the implementation of measures to address illegal logging and related international trade, and the role of SFM in addressing the climate change challenges. All EU policies and instruments highlight the importance of partnerships and full participation of local communities and people.

The present results also suggest that the main implications of the AFLEG and AMCEN frameworks for institutional and human resource capacity building in Southern Sudan for good forest governance and SFM include a focus on the establishment of good governance and on the development and implementation of new forest laws. Moreover, the focus should be on effective partnerships as well as on combating illegal logging and illegality in general in the forest sector; on the rights and participation of indigenous and local peoples, and on the involvement of the private sector and NGOs. New priority areas also comprise forest protection from fire and pest damage and the reduction of emissions from deforestation and forest degradation as well as application of indigenous knowledge in sustainable natural resources management. In addition, all focus areas include new emphasis on full participation and involvement of stakeholders including the local and indigenous communities and taking into account the traditional and customary laws and practices.

The results on the implementation and enforcement of MEAs in Southern Sudan suggested that the existing national framework and instruments need to be both developed further and implemented more effectively, with strengthened institutional capacity building and broader stakeholder involvement. Key issues comprise a new forest law and well-defined standards for SFM as well as institutional arrangements for good forest governance. Significantly more financial and technical assistance and resources are needed together with increased training, education and awareness raising efforts. Moreover, the results suggested that the general national development policies should be better in line with the MEAs and that there is a need for improved coherence between central-level and local governance and management systems by promoting the awareness of specific local conditions and needs (including TFRK) and that of customary and traditional systems.

In Southern Sudan, the development and implementation of appropriate training, extension, education and awareness raising for SFM and good forest governance are essential development priorities and these measures need to be supported by increased, new and additional financial resources and technical assistance, particularly for local and county level capacity building. In the present study, the scores of the assessments were generally “amber” and “red” which means that a lot of new capacity building and development activities, based on both international support and

public-private-community partnerships are needed to promote the implementation and enforcement of MEAs.

The present findings suggest that the main implications of the new forest policy framework for capacity building for SFM in Southern Sudan include the establishment of effective and integrated forest governance and management regimes (with focus on the local level, including community participation and involvement), with an aim to develop public-private-community partnerships and to implement the internationally agreed SFM principles (e.g. by promoting TFRK and the rights of indigenous people and forest-dependent communities), and to develop and implement the forest law and policies for SFM with support from appropriate institutions. Moreover, development priorities include forest products that are derived from sustainably managed forests, and combating desertification, and protection of forest biodiversity.

The findings of the good forest governance assessment suggest that the most important capacity building and development priorities in Southern Sudan encompass the establishment of an internationally accepted system for the verification of SFM and a focus on extension for SFM, with new instruments and design of roles for various actors for the establishment of public-private-community partnerships and the implementation of full stakeholder participation. Moreover, the results suggest that the development priorities for policies comprise a new forest law for SFM and the application of SFM standards. The fundamental background elements that could support capacity building efforts for SFM and good forest governance include the establishment and implementation of the overall sustainable development policies and laws, taking into account both the new approaches and the traditional and customary practices such as TFRK, for instance, through the establishment of new partnerships concomitantly with the creation of overall supportive and enabling conditions.

The findings of this study are in accordance with previous studies related to Sudan as a whole (FAO 2008a;b; UNEP 2007; UNFF 2004;2003; USAID 2008;2007;2003). Specifically in reference to Southern Sudan, they highlight the need for appropriate governance and management practices and a clear forest law and its effective application together with integrated natural resources management, SFM, community-based forest management and involvement of local communities in natural resources management as a whole (Onak 2005). Moreover, the results support the conclusions of previous studies from Sudan on the necessity to link the implementation of MEAs with field-level identification of the causes of environmental degradation, desertification and poverty (Laxen 2007) and to consider the local communities and their issues in the context of the enforcement of new forest laws as well as in the context of promotion of multipurpose forest management and related training, education, technical assistance and extension (ElNasri 2000).

7.6 Broader implications of the study

This study has outlined the key features of sustainable development including the most critical development priorities at the international and EU levels as well as within the African context (using case studies) particularly in the fields of good forest governance and SFM. Moreover, this study has presented a global and EU governance frameworks for good forest governance and SFM as well as described them within the context of international and EU laws. All these dimensions and elements are essential for informed decision-making and they also link good forest governance and SFM to broader framework and contexts within which they should be addressed in an appropriate way. The results showed one surprising thing: a lack of coherence and consistency between the MEAs and other international instruments on issues related to forests. This finding suggests that

more holistic and mutually supportive approaches are needed in the future to promote sustainable development in the forest sector, including all its elements.

The present study is an attempt to contribute to improved practices and capacity building in forestry at all levels, but especially at the international, regional and national levels. Local-level development is case specific and depends on the conditions and context. Therefore, the results of this study (particularly those of case study on Southern Sudan) can provide some information on how to link the local and other levels to promote sustainable forestry practices, but not in a very specific and detailed way. Furthermore, this study confirmed the view that SFM and good forest governance are components of a dynamic and evolving overall global framework including its multiple levels and elements. This means that addressing these issues requires comprehensive, cross-sectoral, coherent and consistent approaches.

The findings of this study suggest that the global sustainable development framework has multiple inter-linked levels that form a comprehensive whole for decision-making and capacity building for SFM and good forest governance. The findings fit well into the broader framework of global governance and confirm the importance of the inter-relationships, coherence and consistency between various levels including the capacity building priorities. In general, the findings of the present study suggest that decision-makers and managers should take a broader view on good forest governance and SFM that account for the whole global framework as well as for specific local conditions and contexts. This study reiterated the close relationship and various inter-linkages that exist between global governance, sustainable development, international and EU law on the one hand, and the main focus areas of this study, SFM and good forest governance on the other. Recognition and awareness of these linkages can contribute to informed decision-making and new mutually supportive approaches at all levels. The principles of sustainable development (recognized within international policy and law the sustainable development law) are especially important in the context of decision-making, planning, and implementation for SFM and good forest governance at all levels. Moreover, international environmental law already clearly recognizes the principles of sustainable use and development.

This study aimed at demonstrating the strong link between SFM and the international sustainable development framework including international law and its components such as sustainable development law. The findings suggest that the capacity building priorities and identified new focus areas for the development of higher education and management institutions in the fields of SFM and good forest governance comprised the key elements of sustainable development identified by the theoretical framework. Furthermore, good forest governance is linked to the overall dynamic global governance framework with its formal and informal governance systems, institutions and standards. This means that informed decision-making in this field takes place within a comprehensive and evolving framework. A specific international forest regime including its normative framework can also be recognized within the overall global governance framework. This normative framework is founded on forest-related international law including MEAs (mainly NLBI and ITTA 2006) as well as on other sources of international law on forests such as consensually agreed principles and policies. In general, SFM and good forest governance and their key elements can be identified, defined and recognized within the sources of international and EU law such as conventions, agreements, custom, principles and expert opinions.

The findings of this study also suggest that future decision-making on forest issues in the global context as well as for planning, management and implementation of capacity building in SFM and good forest governance within the overall global and EU frameworks will carry a strong focus on international trade in forest products from sustainably and legally managed forests as well as on

forest law enforcement and good governance at all levels. The key issues to be considered also comprise reduced greenhouse gas emissions from deforestation and forest degradation, combating desertification and mitigation of the effects of drought, and the sustainable use and protection of forest biological diversity, as well as community-based systems based on customary and traditional laws, norms and practices (e.g. TFRK) and on the involvement and participation of local and indigenous people. In general, international and EU development projects need to be planned and implemented in accordance with both the specific local context and the broader global and regional framework. This also concerns the Finnish development policy and the cooperation activities carried out under it.

The most promising and interesting future research focus areas include the practical implementation of MEAs in specific local conditions and the assessment of the sustainability of related measures. Such assessments should consider the following aspects: the views of local communities; SFM and good forest governance systems and institutions; partnerships for good forest governance and SFM; forest law for SFM at all levels including standards, criteria and principles; integration of MEAs and forest law; standards and principles for good forest governance and SFM; informed decision-making on SFM and good forest governance; evaluation of legal forest management and of forest protection and utilization practices as well as FLEGT and REDD+ actions in various local conditions; governance networks and institutions; training, extension and education for good forest governance and SFM and finally, the whole legal, policy and institutional framework for SFM.

8. Conclusions and recommendations

8.1 Main conclusions of the study

The present study covered SFM and good forest governance within the global framework for sustainable development encompassing their key elements, and implications within this overall context. The significance of comprehensive, long-term, cross-sectoral, coherent and consistent approaches, and that of the need to understand that the global framework is dynamic and evolving were supported by the results of the present study. Moreover, the global and EU governance frameworks were analysed, with an emphasis on SFM and good forest governance. Such an analysis is important because informed decision-making and specific governance and management actions take place within this overall framework with multiple inter-linked levels.

Implications of the present results related to the overall global framework for forest-sector capacity building in developing countries are significant and manifold. The findings based on the global and the EU level assessments and on the case studies suggest that the main development priorities and new focus areas encompass the establishment of SFM, including forest protection, afforestation and reforestation, and prevention of deforestation and forest degradation. Moreover, the key issues comprise the international trade in forest products derived from sustainably managed and legally harvested forests and, specifically, combating illegal logging and the related international trade in tropical timber and other forest-related illegal practices through forest law enforcement and good forest governance at all levels. Education, training and extension, with participation of local and indigenous communities (with a focus on TFRK and traditional and customary practices) and other stakeholders to establish SFM, good forest governance and sustainable resource management approaches (with due consideration of local governance and management responsibilities) and broad-based partnerships are also among the main development priorities.

Furthermore, the development priorities and new focus areas encompass the development and application of new management practices and technology to control, reduce and to prevent emissions of greenhouse gases in the forest sector with a focus on reduced emissions from deforestation and forest degradation. Sustainable use and conservation of the forest biological diversity with due respect to customary use of biological resources in accordance with traditional cultural practices as well as respect, preservation and maintenance of knowledge, innovations and practices of indigenous and local communities are key issues, together with combating desertification and the effects of drought in the context of SFM and good forest governance.

The present study provides information on decision-making for good forest governance and SFM at all levels including the design and implementation of new development programmes and projects in developing countries. Moreover, the findings indicate new field level development and capacity building priorities in SFM and good forest governance such as a new emphasis on training, extension, education, research and new curriculum development. The results also highlight critical gaps that require attention in the context of planning for new capacity building actions.

The theoretical framework and research approach of the present study aimed at contributing to the study of SFM and good forest governance within the overall global and multidisciplinary frameworks for sustainable development, global governance, sustainability science, and international and EU law. This study, as a whole, especially aimed at promoting dynamic, applied, and practically oriented research on SFM and good forest governance with a focus on linking research and practice in the contexts of decision-making, governance and management.

Furthermore, this study attempted to contribute, for its part, to the increase in awareness of the key characteristics and the main implications of the broad global frameworks for SFM and good forest governance, as well as for related capacity building actions. This study identified new critical focus areas for further research and development at all levels such as ideas how to build coherence and synergy within the global framework particularly with a view on linking the local and global levels in a mutually supportive way. In sum, the findings suggest that future SFM and good forest governance at all levels should encompass comprehensive, cross-sectoral, coherent and consistent approaches in line with the dynamic and evolving overall global frameworks.

The case study on Ethiopia showed that capacity building at the Wondo Genet College of Forestry and Natural Resources (WGCF-NR) should include a new focus on SFM, good forest governance and forest conservation, with due respect to the participation of and to sharing of benefits from forests and woodlands within the local communities, and to combating soil erosion and desertification. In addition, more emphasis needs to be placed on the implementation of international commitments on forests, the supply of forest products derived from sustainable and legal sources, and on the development of systems to verify the legality of wood production in accordance with national laws and international obligations. Other priority focus areas comprise the enforcement of the forest law for SFM, public-private-civil society partnerships, as well as community-based and participatory natural resource management that encompasses the local knowledge and management systems. In addition, new emphasis is needed on combating deforestation, environmental and land degradation, loss of biodiversity and overgrazing issues. In general, the WGCF-NR needs to focus its research and education efforts on the overall sustainable rural development with participation of local actors with forestry, pastoralist or agriculture-based livelihoods.

The case study on Southern Sudan showed that the local communities in the northern parts of Renk County prefer more multipurpose trees within their farmlands and rangelands and are willing to

implement the rules for maintenance of tree cover if provided the necessary resources and materials. This means that capacity-building for these ends can significantly promote sustainable rural development and reduce local vulnerability to the effects of climate change or other natural events. Moreover, the sympathy of local communities for multipurpose trees (e.g. *Acacia senegal*) can be used for introducing sustainable management practices such as SFM, and for ensuring environmental protection by increased training and extension as well as by providing resources and materials.

Development priorities for capacity building in Southern Sudan for SFM and good forest governance encompass the drafting and the enforcement of a new forest law for SFM and the effective implementation of the new GoSS Forest Policy Framework. Moreover, SFM needs to be implemented at the local level through public-private-community partnerships with full participation and involvement of local communities and the indigenous people, with due respect to TFRK and to customary and traditional practices, rights and laws. These efforts should be supported by clear and long-term land tenure arrangements and by good working relations between all actors and stakeholders such as international development partners, forest officials and the local people.

The current situation in Southern Sudan and especially in Renk County implies that increased capacity building efforts are critically needed, especially for the establishment of an enabling environment for good forest governance and SFM with relevant standards and internationally accepted verification system for SFM. Furthermore, the establishment of development partnerships in Southern Sudan and especially in Renk County should be linked with the actions of relevant international development organizations and their institutions and instruments such as those that support projects for the implementation of MEAs through provision of financial and technical assistance. The integration of SFM and climate change mitigation and adaptation measures in Southern Sudan can be supported by capacity building for good forest governance and implementation of SFM with a special focus on combating deforestation and forest degradation as well as on tree planting, reforestation and afforestation actions.

There are positive development signals in Renk County such as the will of the local people to plant more multipurpose trees on farmlands and range lands as well as the recognition of the importance of forests and trees for sustainable rural development. Moreover, local communities realize that current practices are not sustainable and that there is an urgent need for change towards more sustainable forest management practices. The local people also want to establish good governance systems through partnerships and increased local responsibilities. Local communities were also interested in new and sustainable livelihoods as well as in the promotion of overall sustainable rural development when provided the necessary assistance and resources.

8.2 Recommendations for further action

The present findings highlight the need for action at all levels to establish good forest governance arrangements and to implement SFM in line with the overriding goal on the achievement of sustainable development. This requires significant capacity building actions such as extension, training, education, and the establishment of new partnerships with appropriate access to resources, materials and technical assistance. The drivers of new actions include a growing global focus on international trade in forest products derived from sustainable and legal sources as well as on forest law enforcement and good forest governance. The key development issues to be included in these new actions encompass broad-based partnerships with the involvement and participation of all stakeholders. Special emphasis should be placed on issues concerning local governance, decision-

making, authority, and management such as customary and traditional law, rights, practices and TFRK aspects. The role and participation of local, indigenous and forest-dependent people should be recognized and ensured in all new development actions. The current focus areas for capacity building actions already encompass the incorporation of community-based approaches into SFM and good forest governance as a part of the implementation of MEAs, and especially in the contexts of FLEGT, REDD+ and climate change mitigation and adaptation actions.

Specifically, new focus areas for capacity building in the Ethiopian higher education institutions and particularly at WGCF-NR should encompass training, extension, research, education and new curriculum development for SFM and good forest governance. Moreover, local governance and management systems and related institutions and practices should be identified and taken into account for encouragement of sustainable rural development. The key issues also encompass the integration of SFM and good forest governance into new and existing development instruments and actions at all levels.

In Southern Sudan, the development priorities for capacity building comprise drafting a new forest law and the development of standards for SFM and of institutional arrangements for good forest governance. Moreover, the priorities encompass the implementation of MEAs supported by financial and technical assistance and accompanied by extension, training, education and awareness raising for SFM and good forest governance. New actions should also focus on the establishment of local governance and management systems and related institutions taking into account the application of customary and traditional systems and TFRK. Development of public-private-community partnerships with full participation and involvement of all stakeholders, particularly the local and indigenous communities, should be an essential part of these new actions.

References

- Adam, A.H.M. 2007. Assessment of some Environmental Dimensions of Rain-Fed Agriculture in Upper Nile State-Sudan: A Case Study of Goz Roum Area (Renk). College of Graduate Studies. Sudan University of Science & Technology. 93 p.
- Adamowicz, W.L. & Burton, P.J. 2003. Sustainability and Sustainable Forest Management. Chapter 2. *In* Towards Sustainable Management of the Boreal Forests. Edited by P.J. Burton, C. Messier, D.W. Smith & W.L. Adamowicz. NRC Research Press, Ottawa, Ontario, Canada. pp. 41-64.
- AfDB 2009. African Development Bank Group. Ethiopia. Available at:
<http://www.afdb.org/en/countries/east-africa/ethiopia/>
- AFLEG 2003. Africa Forest Law Enforcement and Governance (AFLEG). Ministerial Conference 13-16 October, 2003. Ministerial Declaration Yaoundé, Cameroon October 16, 2003. Website:
http://siteresources.worldbank.org/INTFORESTS/Resources/AFLEGMinisterialDeclaration_English.pdf
- African Economic Outlook 2009a. Ethiopia. Available at:
<http://www.africaneconomicoutlook.org/en/countries/east-africa/ethiopia/>
- African Economic Outlook 2009b. Sudan. Available at:
<http://www.africaneconomicoutlook.org/en/countries/east-africa/sudan/>
- Agenda 21 1992a. Chapter 2: International Cooperation to Accelerate Sustainable Development in Developing Countries & Related Domestic Policies. Section I. Earth Summit Agenda 21. The United Nations Programme of Action from Rio. The United Nations Conference on Environment and Development (UNCED), Rio de Janeiro, 3-14 June 1992. Available at:
http://www.un.org/esa/dsd/agenda21/res_agenda21_02.shtml
- Agenda 21 1992b. Chapter 8: Integrating Environment & Development in Decision-Making. Section I. Earth Summit Agenda 21. The United Nations Programme of Action from Rio. The United Nations Conference on Environment and Development (UNCED), Rio de Janeiro, 3-14 June 1992. Available at: http://www.un.org/esa/dsd/agenda21/res_agenda21_08.shtml
- Agenda 21 1992c. Chapter 10: Integrated Approach to the Planning & Management of Land Resources. Section II. Earth Summit Agenda 21. The United Nations Programme of Action from Rio. The United Nations Conference on Environment and Development (UNCED), Rio de Janeiro, 3-14 June 1992. Available at:
http://www.un.org/esa/dsd/agenda21/res_agenda21_10.shtml
- Agenda 21 1992d. Chapter 26: Recognizing & Strengthening the Role of Indigenous People & their Communities. Section III. Earth Summit Agenda 21. The United Nations Programme of Action from Rio. The United Nations Conference on Environment and Development (UNCED), Rio de Janeiro, 3-14 June 1992. Available at:
http://www.un.org/esa/dsd/agenda21/res_agenda21_26.shtml
- Agenda 21 1992e. Chapter 34: Transfer of Environmentally Sound Technology, Cooperation & Capacity-Building. Section IV. Earth Summit Agenda 21. The United Nations Programme of Action from Rio. The United Nations Conference on Environment and Development (UNCED), Rio de Janeiro, 3-14 June 1992. Available at:
http://www.un.org/esa/dsd/agenda21/res_agenda21_34.shtml
- Agenda 21 1992f. Chapter 35: Science for Sustainable Development. Section IV. Earth Summit Agenda 21. The United Nations Programme of Action from Rio. The United Nations Conference on Environment and Development (UNCED), Rio de Janeiro, 3-14 June 1992. Available at:
http://www.un.org/esa/dsd/agenda21/res_agenda21_35.shtml
- Agenda 21 1992g. Chapter 36: Promoting Education, Public Awareness and Training. Section IV. Earth Summit Agenda 21. The United Nations Programme of Action from Rio. The United Nations Conference on Environment and Development (UNCED), Rio de Janeiro, 3-14 June 1992. Available at: http://www.un.org/esa/dsd/agenda21/res_agenda21_36.shtml
- Agenda 21 1992h. Chapter 39: International Legal Instruments & Mechanisms. Section IV. Earth Summit Agenda 21. The United Nations Programme of Action from Rio. The United Nations Conference on Environment and Development (UNCED), Rio de Janeiro, 3-14 June 1992. Available at:
http://www.un.org/esa/dsd/agenda21/res_agenda21_39.shtml

- Agenda 21 1992i Chapter 40: Information for Decision-Making. Earth Summit Agenda 21. The United Nations Programme of Action from Rio. The United Nations Conference on Environment and Development (UNCED), Rio de Janeiro, 3-14 June 1992. Available at: <http://www.un.org/esa/sustdev/documents/agenda21/english/agenda21chapter40.htm>
- Agenda 21 1992j. Chapter 11: Combating Deforestation. Earth Summit Agenda 21. The United Nations Programme of Action from Rio. The United Nations Conference on Environment and Development (UNCED), Rio de Janeiro, 3-14 June 1992. Available at: <http://www.un.org/esa/sustdev/documents/agenda21/english/agenda21chapter11.htm>
- Agenda 21 1992k. Chapter 35: Science for Sustainable Development. Earth Summit Agenda 21. The United Nations Programme of Action from Rio. The United Nations Conference on Environment and Development (UNCED), Rio de Janeiro, 3-14 June 1992. Available at: <http://www.un.org/esa/sustdev/documents/agenda21/english/agenda21chapter35.htm>
- Akande, D. 2003. International Organisations. In: Evans, M.D. (Ed.), International Law. Oxford University Press. 269-297 p.
- Alger, C.F. 2001. Thinking About the Future of the UN System. In Diehl, P.F. (Ed.). The Politics of Global Governance. International Organizations in an Interdependent World. Second Edition. Lynne Rienner Publishers. 483-508 pp.
- Alvarez, J.E. 2005. International Organizations as Law-makers. Oxford University Press. 660 p.
- AMCEN 2009. Nairobi Declaration on the African Process for Combating Climate Change. The African Ministerial Conference on the Environment (AMCEN), Nairobi, 25-29 May 2009. Available at: http://www.unep.org/roa/Amcen/Amcen_Events/3rd_ss/Docs/nairobi-Declaration-2009.pdf
- Amerasinghe, C.F. 2005. Principles of the institutional law of international organizations. Second Revised Edition. Cambridge University Press. 535 p.
- Archer, C. 2001. International Organizations. Third Edition. Routledge, London and New York. 204 p.
- Ascher, W. 2007. Policy sciences contributions to analysis to promote sustainability. Sustainability Science 2: 141-149.
- Ascher, W. 2006. Long-term strategy for sustainable development: strategies to promote far-sighted action. Sustainability Science 1: 15-22.
- Bache, I. & Flinders, M. 2004. Conclusions and Implications. In Bache, I & Flinders, M. (Eds.). Multi-level Governance. Oxford University Press. 195-206 pp.
- Baker, S. 2006. Sustainable Development. Routledge introductions to environment series. Routledge. 245 p.
- Bass, S. & Thomson, K. 1997. Forest Security: challenges to be met by a global forest convention. Prepared for the World Commission on Forests and Sustainable Development. Forestry and Land-Use Series No.10. International Institute for Environment and Development. 42 p. Available at: <http://www.iied.org/pubs/pdf/full/7528IIED.pdf>
- Basse, E.M. 1997. Regulatory Chain – Results of an International Development. In Basse, E.M. (Ed.). Environmental Law: From International to National Law. GadJura. 9-51 pp.
- Beach, D. 2005. The Dynamics of European Integration. Why and When EU Institutions Matter. Palgrave Macmillan. 304 p.
- Bekele, M. 2008. Environmental policies, strategies and programs. In Assefa, T. (Ed.). Digest of Ethiopian national policies, strategies and programs. Forum for Social Studies and European Union. 337-370 p.
- Bell, S. & McGillivray, D. 2006. Environmental Law. Sixth Edition. Oxford University Press. 910 p.
- Bernstein, S. & Cashore, B. 2004. Non-state Global Governance: Is Forest Certification a Legitimate Alternative to a Global Forest Convention? In Kirton, J.J. & Trebilcock M.J. (Eds.). Hard Choices, Soft Law: Voluntary Standards in Global Trade, Environment and Social Governance. Ashgate. 33-63 pp.
- Biermann, F. and Pattberg, P. 2008. Global Environmental Governance: Taking Stock, Moving Forward. Annual Review of Environment and Resources, Vol. 33: 277-294.
- Birnie, P, Boyle, A. and Redgwell, C. 2009. International Law & The Environment. Third Edition. Oxford University Press. 851 p.

- Birnie, P.W. & Boyle, A.E. 2002. *International Law and the Environment*. Second Edition. Oxford University Press. 798 p.
- Both, P. 2004. *International relations of Ethiopia: the strategy of a developing state*. AuthorHouse. 208 p.
- Both, P. L. 2002. *South Sudan: forgotten tragedy*. University of Calgary, Canada. 113 p.
- Boyle, A. & Freestone, D. (Eds.). 1999. *International law and sustainable development. Past achievements and future challenges*. Oxford University Press. 377 p.
- Brady, J. (Ed.) 2005. *Environmental Management in Organizations. The IEMA Handbook*. The Institute of Environmental Management and Assessment (IEMA). Earthscan. 438s.
- Brand, D.G. 1997. Criteria and indicators for the conservation and sustainable management of forests: Progress to date and future directions. *Biomass and Bioenergy* 13(4-5), 247-253.
- Brownlie, I. 2003. *Principles of Public International Law*. Sixth Edition. Oxford University Press. 742 p.
- Brownsword, R. & Lewis, D. 2006. Preface. In Lewis, D. (Ed.). *Global Governance and the Quest for Justice*. Volume 1: International and Regional Organisations. HART Publishing. Oxford and Portland, Oregon.
- Brunnée, J. 1996. A Conceptual Framework for an International Forests Convention: Customary Law and Emerging Principles. In *Global Forests & International Environmental Law*. Canadian Council on International Law (Ed.) International Environmental Law & Policy Series. Kluwer Law International. 41-77 p.
- Bugge, H.C. 1997. General Principles of International Law and Environmental Protection. In Basse, E.M. (Ed.). *Environmental Law: From International to National Law*. GadJura. 53-72 pp.
- Burger, D. 2000. Making Rio work – The vision of sustainable development and its implementation through forest certification. In Von Gadow, K., Pukkala, T. & Tome, M. (Eds.). *Sustainable Forest Management. Managing Forest Ecosystems*. Volume 1. Kluwer Academic Publishers. 153-192 p.
- Cable, V. 1999. *Globalization and Global Governance*. The Royal Institute of International Affairs. Chatham House Papers. 139 p.
- Calderisi, R. 2006. *The trouble with Africa: why foreign aid isn't working*. Palgrave Macmillan. 249 p.
- Capistrano, D. 2010. Forest governance and decentralization in Africa: issues and emerging trends. In German, L.A., Karsenty, A. and Tiani, A-M. (Eds.). *Governing Africa's forests in a globalized world*. Earthscan. 379- 396pp.
- Cassese, A. 2005. *International Law*. Second Edition. Oxford University Press. 558 p.
- CBD 2008. COP9, Decision IX/5. Forest Biodiversity. Available at: <http://www.cbd.int/decisions/cop/?m=cop-09>
- CBD 2004a. COP7, Decision VII/1. Forest biological diversity. Available at: <http://www.cbd.int/decision/cop/?id=7738>
- CBD 2004b. COP7, Decision VII/11. Ecosystem approach. Available at: <http://www.cbd.int/decision/cop/?id=7748>
- CBD 2002. COP6, Decision VI/22. Forest biological diversity. Available at: <http://www.cbd.int/decision/cop/?id=7196>
- CBD 1992. *The Convention on Biological Diversity*. Available at: <http://www.cbd.int/doc/legal/cbd-un-en.pdf>
- CGG 1995. *Our Global Neighborhood. The Report of the Commission on Global Governance*. Oxford University Press. 410 p.
- Chinkin, C. 1998. International Environmental Law in Evolution. In Jewell, T. & Steele, J. (Eds.). *Law in Environmental Decision-Making. National, European and International Perspectives*. Clarendon Press, Oxford. 229-265 pp.
- CIA 2009. *The World Factbook*. Ethiopia. Available at: <https://www.cia.gov/library/publications/the-world-factbook/geos/et.html>
- CIFOR 2009. *Forests and Governance Programme*. Available at: <http://www.cifor.cgiar.org/Research/Governance/>
- Cirelli, M. T. & Schmithüsen, F. 2000. *Trends in Forest Legislation: Western Europe*. FAO Legal Papers Online 10, June, 2000, Rome, Italy. 35 p. Available at:

- <http://www.fao.org/Legal/prs-ol/lpo10.pdf>
- Clark, I. 2001. Globalization and the Post-Cold War Order. In Baylis, J. & Smith, S. (Eds.) with the assistance of Patricia Owens. The Globalization of World Politics. An Introduction to International relations. Third Edition. Oxford University Press. 728-742 pp.
- CPA 2004. The Comprehensive Peace Agreement between the Government of the Republic of the Sudan and the Sudan Peoples's Liberation Movement/Sudan People's Liberation Army. Available at: <http://www.sd.undp.org/doc/CPA.pdf>
- Cronkleton, P., Taylor, P.L., Barry, D., Stone-Jovicich, S. and Schmink, M. 2008. Environmental Governance and the Emergence of Forest-Based Social Movements. CIFOR Occasional Paper No. 49. Center for International Forestry Research (CIFOR). 36 p.
- CSD 2007. Indicators of Sustainable Development: Guidelines and Methodologies. Third Edition. UN Department of Social and Economic Affairs. Division of Sustainable Development. The United Nations. 93 p. Available at: <http://www.un.org/esa/sustdev/natlinfo/indicators/guidelines.pdf>
- De Montalembert, M.R. 1995. Cross-sectoral linkages and the influence of external policies on forest development. Unasylva No. 182. FAO 50th Anniversary. Volume 46. An international journal of forestry and forest industries. FAO. Available at: <http://www.fao.org/docrep/v6585e/v6585e06.htm#cross-sectoral%20linkages%20and%20the%20influence%20of%20external%20policies%20on%20forest%20development>
- De Montalembert, M.R. & Schmithüsen, F. 1994. Policy, Legal and Institutional Aspects of Sustainable Forest Management. Readings in Sustainable Forest Management, FAO Forestry Paper Nr.122: 153-171. FAO, Rome.
- De Montalembert, M.R. & Schmithüsen, F. 1993. Policy and legal aspects of sustainable forest management. Unasylva No. 175. Policy and legislation. Volume 44-1993/4. An international journal of forestry and forest industries. FAO. Available at: <http://www.fao.org/docrep/v1500e/v1500e03.htm#policy%20and%20legal%20aspects%20of%20sustainable%20forest%20management>
- Dresner, S. 2002. The Principles of Sustainability. Earthscan Publications Ltd. 200 p.
- Ebbesson, J. 1996. Compatibility of International and National Environmental Law. Iustus Förlag. 301 p.
- EC 2007. Measuring progress towards a more sustainable Europe: 2007 monitoring report of the EU Sustainable Development Strategy. Eurostat Statistical Books. 313 p. Available at: http://ec.europa.eu/sustainable/docs/estat_2007_sds_en.pdf
- Ekroos, A. 2005. Forests and the Environment – Legislation and Policy of the EU. European Environmental Law Review. Volume 14, Issue 2. 44-57 pp.
- Elliot, J.A. 2006. An Introduction to Sustainable Development. Third edition. Routledge Perspectives on Development Series. Routledge. 283 p.
- EINasri, M.H. 2000. Forest Policy of the Sudan: Past, Present and Future. Department of Forest Conservation and Protection. Faculty of Forestry. University of Khartoum. 201 p.
- Embassy of Ethiopia 2009. The Embassy of the Federal Democratic Republic of Ethiopia in Sweden 2009. Available at: <http://www.ethemb.se/>
- Emmerij, L. Jolly, R. & Weiss, T.G. 2001. Ahead of the Curve? UN Ideas and Global Challenges. ' Indiana University Press. 257 p.
- EPA 1998. National Action Programme to Combat Desertification. Environmental Protection Authority (EPA). The Federal Democratic Republic of Ethiopia. 158 p. Addis Ababa, November 1998. Available at: <http://www.unccd.int/actionprogrammes/africa/national/2000/ethiopia-eng.pdf>
- EPA 1997. The resource base, its utilization and planning for sustainability. The Conservation Strategy of Ethiopia, Volume 1. Environmental Protection Authority in collaboration with Ministry of Economic Development and Cooperation. Addis Ababa. 138 p.
- Eskonheimo, A. 2006. Women, environmental changes and forestry-related development: Gender-affected roles of rural people in land degradation and environmental rehabilitation in a dry region of Sudan. Tropical Forestry Reports 29. Viikki Tropical Resources Institute (VITRI), University of Helsinki. 214 p.
- Esty, D.C. and Ivanova, M.H. 2002. The Road Ahead: Conclusions and Action Agenda.

- In Esty, D.C. and Ivanova, M.H. Global Environmental Governance: Options & Opportunities. 225-240 pp.
- EU 2009a. Communication from the Commission to the European Parliament, The Council, The European Economic and Social Committee and the Committee of the Regions. Mainstreaming sustainable development into EU policies: 2009 Review of the European Union Strategy for Sustainable Development. COM(2009) 400 final, Brussels, 24.7.2009. Available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0400:FIN:EN:PDF>
- EU 2009b. Commission staff working paper supporting democratic governance through the governance initiative: a review and the way forward. SEC(2009) 58 final. Brussels, 19.1.2009. Available at: http://ec.europa.eu/development/icenter/repository/CSWP_SEC_2009_0058_governance_en.pdf
- EU 2009c. JOINT PAPER. Commission/Council General Secretariat on Democracy Building in EU External Relations. SEC(2009) 1095 final. Brussels, 27.7.2009. Available at: http://ec.europa.eu/development/icenter/repository/SEC_2009_1095_EN.pdf
- EU 2009d. Report from the commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions. EU 2009 Report on Policy Coherence for Development. COM(2009) 461 final. Brussels, 17.9.2009. Available at: http://ec.europa.eu/development/icenter/repository/SEC_PDF_2009_1137_F_ACTE_PCD_EN.pdf
- EU 2009e. Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions. Policy Coherence for Development – Establishing the policy framework for a whole-of-the-Union approach. COM(2009) 458 final. Brussels, 15.9.2009. Available at: http://ec.europa.eu/development/icenter/repository/COM_2009_458_part1_en.pdf
- EU 2008a. Africa EU Declaration on Climate Change. Available at: [http://ec.europa.eu/development/icenter/repository/AFRICA%20EU%20DECL%20ON%20CC\(01%2012%2008\)_en.pdf](http://ec.europa.eu/development/icenter/repository/AFRICA%20EU%20DECL%20ON%20CC(01%2012%2008)_en.pdf)
- EU 2008b. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and Committee of the Regions. Addressing the challenges of deforestation and forest degradation to tackle climate change and biodiversity loss. COM(2008) 645 final. Brussels, 17.10.2008. Available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0645:FIN:EN:PDF>
- EU 2007a. Lisbon Declaration-EU Africa Summit. Available at: http://ec.europa.eu/development/icenter/repository/EAS2007_lisbon_declaration_en.pdf
- EU 2007b. Ethiopia-European Community. Country Strategy Paper and National Indicative Programme for the period 2008-2013. 57 p. Available at: http://ec.europa.eu/development/icenter/repository/scanned_et_csp10_en.pdf
- EU 2007c. The Africa-EU Strategic Partnership. A Joint Africa-EU Strategy. Available at: http://ec.europa.eu/development/icenter/repository/EAS2007_joint_strategy_en.pdf
- EU 2007d. First Action Plan (2008-2010) for the implementation of the Africa-EU Strategic Partnership. Available at: http://ec.europa.eu/development/icenter/repository/EAS2007_action_plan_2008_2010_en.pdf
- EU 2007e. Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions. Limiting Global Climate Change to 2 degrees Celsius. The way ahead for 2020 and beyond. COM(2007) 2 final. Brussels, 10.1.2007. Available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2007:0002:FIN:EN:PDF>
- EU 2006a. European Union. Consolidated versions of the Treaty on European Union and of the Treaty establishing the European Community. Official Journal of the European Union, C 321 E/1, 29.12.2006. Available at: <http://eur-lex.europa.eu/LexUriServ/site/en/oj/2006/ce321/ce32120061229en00010331.pdf>
- EU 2006b. Renewed EU Sustainable Development Strategy as adopted by the European Council on 15/16 June 2006. Council of the European Union. 10917/06, Brussels 26 June 2006. Available at: http://ec.europa.eu/sustainable/docs/renewed_eu_sds_en.pdf
- EU 2006c. Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions. Governance in

- the European Consensus on Development. Towards a harmonised approach within the European Union. COM(2006) 412 final. Brussels, 30.8.2006. Available at:
http://ec.europa.eu/development/icenter/repository/COM_2006_421_EN.pdf
- EU 2006d. Joint statement by the Council and the representatives of the governments of the Member States meeting within the Council, the European Parliament and the Commission on European Union Development Policy: 'The European Consensus'. Official Journal of the European Union, C 46/01, 24.2.2006. Available at:
<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2006:046:0001:0019:EN:PDF>
- EU 2006e. Regulation (EC) No 1905/2006 of the European Parliament and of the Council of 18 December 2006 establishing a financing instrument for development cooperation. Official Journal of the European Union L 378/41, 27.12.2006. Available at:
<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:378:0041:0071:EN:PDF>
- EU 2006f. The ACP-EC Partnership Agreement. Partnership agreement between the member of the African, Caribbean and Pacific group of states of the one part, and the European Community and its Member States of the other part. Available at:
http://ec.europa.eu/development/icenter/repository/Cotonou_EN_2006_en.pdf
- EU 2006g. Communication from the Commission to the Council and the European Parliament on an EU Forest Action Plan. Available at:
http://ec.europa.eu/agriculture/fore/action_plan/com_en.pdf
- EU 2006h. Commission staff working document. Annex to the Communication from the Commission to the Council and the European Parliament on an EU Forest Action Plan. Available at: http://ec.europa.eu/agriculture/fore/action_plan/workdoc_en.pdf
- EU 2005a. Communication from the Commission to the Council, the European Parliament and the European Economic and Social Committee. Policy Coherence for Development. Accelerating progress towards attaining the Millennium Development Goals. COM(2005) 134 final, Brussels, 12.4.2005. Available at:
[http://ec.europa.eu/development/icenter/repository/2005.04_COM\(2005\)134_EN.pdf](http://ec.europa.eu/development/icenter/repository/2005.04_COM(2005)134_EN.pdf)
- EU 2005b. Communication from the Commission to the Council and the European Parliament. Reporting on the implementation of the EU Forestry Strategy. Available at:
http://eur-lex.europa.eu/LexUriServ/site/en/com/2005/com2005_0084en01.pdf
- EU 2005c. Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions. Thematic Strategy on the sustainable use of natural resources. COM(2005) 670 Final, Brussels, 21.12.2005. Available at:
<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2005:0670:FIN:EN:PDF>
- EU 2005d. Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions. Winning the Battle Against Global Climate Change. COM(2005) 35 final. Brussels, 9.2.2005. Available at:
<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2005:0035:FIN:EN:PDF>
- EU 2004a. EU Task Force on Land Tenure. EU Land Policy Guidelines. Guidelines for support to land policy design and land policy reform processes in developing countries. Available at:
http://ec.europa.eu/development/icenter/repository/EU_Land_Guidelines_Final_12_2004_en.pdf
- EU 2003a. Sustainable Forestry and the European Union. Initiatives of the European Commission. 56 p. Available at: http://ec.europa.eu/agriculture/publi/brochures/forestry/full_en.pdf
- EU 2003b. Communication from the Commission to the Council and the European Parliament. The World Summit on Sustainable Development one year on: implementing our commitments. COM(2003) 829 final. Brussels, 23.12.2003. Available at:
<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2003:0829:FIN:EN:PDF>
- EU 2003c. Governance and Development. Communication from the Commission to the Council, the European Parliament and the European Economic and Social Committee. Commission of the European Communities. 34 p. Available at:
http://europa.eu/eur-lex/en/com/cnc/2003/com2003_0615en01.pdf
- EU 2003d. Communication from the Commission to the Council and the European Parliament. Forest Law Enforcement, Governance and Trade (FLEGT). Proposal for an EU Action Plan. COM(2003) 251 final. Brussels, 21.5.2003. Available at:

- http://ec.europa.eu/development/icenter/repository/FLEGT_en_final_en.pdf
- EU 2003e. Directive 2003/35/EC of the European Parliament and of the Council of 26 May 2003 providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment and amending with regard to public participation and access to justice Council Directives 85/337/EEC and 96/61/EC. Official Journal L 156, 25/06/2003, p. 0017-0025. Available at:
<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32003L0035:EN:HTML>
- EU 2002a. Communication from the Commission to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions. Towards a global partnership for sustainable development. COM(2002) 82 final, Brussels, 13.2.2002. Available at:
<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2002:0082:FIN:EN:PDF>
- EU 2002b. European Governance: Better lawmaking. Communication from the Commission. 6 p. Available at:
<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2002:0275:FIN:EN:PDF>
- EU 2002c. Decision No 1600/2002/EC of the European Parliament and of the Council of 22 July 2002 laying down the Sixth Community Environment Action Programme. Official Journal of the European Communities L 242/1, 10.9.2002. Available at:
<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2002:242:0001:0015:EN:PDF>
- EU 2002d. Communication from the Commission. Fighting rural poverty. European Community policy and approach to rural development and sustainable natural resources management in developing countries. COM(2002) 429 final. Brussels, 25.7.2002. Available at:
http://ec.europa.eu/development/icenter/repository/COM_2002_0429_F_EN_ACTE_en.pdf
- EU 2001a. Communication from the Commission. A Sustainable Europe for a Better World: A European Union Strategy for Sustainable Development (Commission's proposal to the Gothenburg European Council). COM(2001)264 final, Brussels, 15.5.2001. Available at:
<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2001:0264:FIN:EN:PDF>
- EU 2001b. European Governance: a white paper. Commission of the European Communities. 35 p. Available at: http://eur-lex.europa.eu/LexUriServ/site/en/com/2001/com2001_0428en01.pdf
- EU 2001c. Report of the Working Group "Strengthening Europe's Contribution to World Governance". White Paper on Governance. Working Group No. 5. An EU Contribution to Better Governance beyond Our Borders. 53 p. Available at:
http://ec.europa.eu/governance/areas/group11/report_en.pdf
- EU 2001d. Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment. Official Journal L 197/30, 21/7/2001. Available at:
<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2001:197:0030:0037:EN:PDF>
- EU 2000. Sustainable Governance. Institutional and Procedural aspects of Sustainability. European Consultative Forum on the Environment and Sustainable Development. 19 p. Available at:
http://www.pedz.uni-mannheim.de/daten/edz-bn/gdu/00/governance_en.pdf
- EU 1998. Council Resolution of 15 December 1998 on a Forestry Strategy for the European Union. 1999/C 56/01. Official Journal of the European Communities, 26.2.1999, C 56/1. Available at:
http://eur-lex.europa.eu/pri/en/oj/dat/1999/c_056/c_05619990226en00010004.pdf
- EU 1985. Council Directive of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment. (85/337/EEC). Official Journal L 175, 5/7/1985. Available at:
<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31985L0337:EN:NOT>
- Evans, J. and Turnbull, J.W. 2004. Plantation forestry in the tropics: the role, silviculture and use of planted forests for industrial, social, environmental and agroforestry purposes. Oxford University press. 467 p.
- Experts Group on Environmental Law 1986. Strengthening the Legal and Institutional Framework for Environmental Protection and Sustainable Development. Consolidated Report of the Experts Group on Environmental Law to the World Commission on Environment and Development. August 1986. In Munro, R.D. (Chairman) & Lammers, J.G. (Rapporteur). Environmental Protection and Sustainable Development: Legal Principles and Recommendations. Adopted by the Experts Group on Environmental Law of the World Commission on Environment and

- Development. Graham & Trotman. 5-22 pp.
- Fairbrass, J. & Jordan, A. 2004. Multi-level Governance and Environmental Policy. In Bache, I & Flinders, M. (Eds.). Multi-level Governance. Oxford University Press. 147-164 pp.
- Fairhurst, J. 2006. Law of the European Union. Fifth Edition. Pearson Longman. 622 p.
- FAO 2008a. FAO Sudan Land Programme. Available at :
http://www.fao.org/fileadmin/templates/tc/tce/pdf/FAO_Sudan_Land_Programme.pdf
- FAO 2008b. FAO Component of the 2008 Work Plan for the Sudan. Available at:
http://www.fao.org/fileadmin/templates/tc/tce/pdf/app_sudan_workplan2008.pdf
- FAO 2007a. State of the World's Forests 2007. Food and Agriculture Organization of the United Nations (FAO), Rome. Available at: <http://www.fao.org/docrep/009/a0773e/a0773e00.htm>
- FAO 2007b. Good governance in land tenure and administration. FAO Land Tenure Studies 9. 57 p. Available at: <ftp://ftp.fao.org/docrep/fao/010/a1179e/a1179e00.pdf>
- FAO 2005a. Global Forest Resources Assessment. Progress towards sustainable forest management. FAO Forestry Paper 147. Available at:
<ftp://ftp.fao.org/docrep/fao/008/A0400E/A0400E00.pdf>
- FAO 2005b. Global Forest Resources Assessment. Global Tables. Available at:
http://www.fao.org/forestry/static/data/fra2005/global_tables/FRA_2005_Global_Tables_EN.xls
- FAO 2005c. Global Forest Resources Assessment. Country Reports. Ethiopia. Available at:
<ftp://ftp.fao.org/docrep/fao/010/aj012E/aj012E00.pdf>
- FAO 2005d. Global Forest Resources Assessment. Country Reports. Sudan. Available at:
<ftp://ftp.fao.org/docrep/fao/010/ai965E/ai965E00.pdf>
- FAO 2004. Expert Consultation on Criteria and Indicators for Sustainable Forest Management. 2 - 4 March 2004, Cebu City, Philippines. Available at:
<http://www.fao.org/DOCREP/MEETING/008/J2123E/J2123E00.htm>
- FAO 2003a. Report of the International Conference of the Contribution of Criteria and Indicators for Sustainable Forest Management: The Way Forward. Volume 1, CICI 2003, 3-7 February 2003, Guatemala City, Guatemala. Available at:
http://www.fao.org/documents/show_cdr.asp?url_file=/DOCREP/005/Y8694E/Y8694E00.HTM
- FAO 2003b. Report of the International Conference of the Contribution of Criteria and Indicators for Sustainable Forest Management: The Way Forward. Volume 2, CICI 2003, 3-7 February 2003, Guatemala City, Guatemala. Available at:
http://www.fao.org/documents/show_cdr.asp?url_file=/DOCREP/005/J0077E/J0077E00.HTM
- FAO 2002. Law and sustainable development since Rio. Legal trends in agriculture and natural resource management. FAO Legislative Study 73. 376 p.
- FAO 1999. Beyond Sustainable Forest Management: Opportunities and Challenges for Improving Forest Management in the Next Millennium. A Summary of Recent Reports Prepared for the FAO Forestry Department as an Input to the World Bank Forest Policy Implementation Review and Strategy. A Summary Paper Prepared by Ljungman, C.L.S., Martin, R.M. & Whiteman, A. Forestry Policy and Planning Division, Rome. 46 p.
- FAO 1994a. Readings in Sustainable Forest Management. FAO Forestry Paper 122. FAO, Rome. 266 p.
- FAO 1994b. A proclamation to provide for the conservation, development and utilization of forests. Proclamation No. 94/1994. Negarit Gazeta of the Transnational Government of Ethiopia. Available at: <http://faolex.fao.org/docs/texts/eth8954.doc>
- FAO 1993. The Challenge of Sustainable Forest Management. What Future for the World's Forests? 128 p.
- FAO 1991. Possible main elements of an instrument (Convention, Agreement, Protocol, Charter) for the conservation and development of the world's forests. Draft. 12 p.
- Ferguson, I.S. 1996. Sustainable forest management. Oxford University Press. 162 p.
- Fitzmaurice, M. 2003. The Practical Working of the Law of Treaties. In: Evans, M.D. (Ed.), International Law. Oxford University Press. 173-201 p.
- Flies, R. 2004. Forestry Strategy for Europe. In Baines, C. (Ed.). Forest Research Crossing Borders. EFI Proceedings. No. 50, 2005 European Forest Institute, Joensuu. 19-25 pp.
- Flies, R. 2002. Intersectoral Linkages and EU's Forestry Strategy. In Tikkanen, I., Glück, P. & Pajujoja, H. (Eds.). Cross-Sectoral Policy Impacts on Forests. 4-6 April, 2002, Savonlinna,

- Finland. EFI Proceedings No. 46, 2002. European Forest Institute, Joensuu 47-53 pp.
- Fredriksson, G. 2003. General comments on forest legislation in European countries with economies in transition. In Le Master, D., Herbst, P. & Schmithüsen, F. (Eds.). *Experiences with New Forest and Environmental Laws in European Countries with Economies in Transition. Proceedings of the 4th International Symposium, Jaunmoka, Latvia, August 2002. Organized by the IUFRO Research Group 6.13.00. Forest Science Contributions Vol. 29, Chair Forest Policy and Forest Economics, ETH, Zürich.* 11-15 pp.
- Gehring 1994. *Dynamic International Regimes: Institutions for International Environmental Governance. Studies of the Environmental Law Network International (ELNI), Volume 5.* Peter Lang. 515 p.
- German, L.A., Pierce Colfer, C.J., Barrow, E., Kuchli, C., Blaser, J. and Wardojo, W. 2010. Forest governance and decentralization in Africa: linking local, regional and global dialogues. In German, L.A., Karsenty, A. and Tiani, A-M. (Eds.). *Governing Africa's forests in a globalized world.* Earthscan. 1-25 pp.
- Ginther, K. & De Waart, P.J.I.M. 1995. Sustainable development as a matter of good governance: an introductory view. In Ginther, K. & De Waart, P.J.I.M. (Eds.) *Sustainable development and good governance.* Martinus Nijhoff Publishers. 1-14 pp.
- Glennie, J. 2008. *The trouble with aid: why less could mean more for Africa.* African Arguments. Zed Books Ltd, in association with International African Institute, Royal African Society and Social Science Research Council. 175 p.
- GLOBE 1992. *Global Legislators Organisation for a Balanced Environment. Draft Text for a Convention for the Conservation and Wise Use of Forests.* 30 p.
- Glover, E.K. 2005. *Tropical dryland rehabilitation: Case study on participatory forest management in Gedaref, Sudan.* Tropical Forestry Reports 27. Viikki Tropical Resources Institute (VITRI), University of Helsinki. 183 p.
- GoSS 2007. *Forest Policy Framework.* Submitted to Southern Sudan Legislative Assembly (SSLA) 10th October 2007. The Ministry of Agriculture and Forestry (MAF). The Government of Southern Sudan (GOSS). 44 p.
- Guldin, R.W., Parrotta, J.A. & Hellström, E. (Eds.) 2005. *Working Effectively at the Interface of Forest Science and Forest Policy. Guidance for Scientists and Research Organizations.* IUFRO Task Force on the Forest Science-Policy Interface. Supported by USDA-Forest Service. IUFRO Occasional Paper No. 17. 29 p.
- Glück, P., Rayner, J., Cashore, B., Agrawal, A., Bernstein, S., Capistrano, D., Hogg, K., Liss, B-M., McDermott, C., Maini, J.S., Oksanen, T., Ollonqvist, P., Pölzl, H., Rametsteiner, E. & Pleschberger, W. 2005. Changes in the Governance of Forest resources. In Mery, G., Alfaro, R., Kanninen, M. & Lobovikov, M. (Eds.) *Forests in the Global Balance – Changing Paradigms.* pp. 51-74.
- Glück, P. 2000. Policy means for ensuring the full value of forests to society. In *Land Use Policy*, Volume 17, Issue 3, July 2000. 177-185 pp.
- Greene, O. 1996. *Environmental Regimes: Effectiveness and Implementation Review.* In Vogler, J. & Imber, M.F. (Eds.). *The Environment and International Relations. Global Environmental Change Programme.* Routledge. 196-214 p.
- Grindle, M.S. 2000. Ready or Not: The Developing World and Globalization. In Nye Jr., J.S. & Donahue, J.D. (Eds.) *Governance in a Globalizing World. Visions of Governance for the 21st Century,* Cambridge, Massachusetts. Brookings Institution Press, Washington D.C. 178-207 p.
- Hares, M., Eskonheimo, A., Myllyntaus, T. and Luukkanen, O. 2006. Environmental literacy in interpreting endangered sustainability: Case studies from Thailand and the Sudan. In *Geoforum*, Volume 37, Issue 1, January 2006, 128-144 pp.
- Hartley, T.C. 2004. *European Union Law in a Global Context: text, Cases and Materials.* Cambridge University Press. 434 p.
- Held, D. & McGrew, A. 2003. Introduction. In Held, D. & McGrew, A. (Eds.). *Governing Globalization. power, Authority and Global Governance.* 1-21 pp.
- Hellström, E. 1999. Forest Forum for Decision-makers in Finland: New Approach to Strengthening the Science-Policy Interface. In IUFRO Task Force Forest Science-Policy Interface. *Papers presented at a Side Event of the Third Session of the Intergovernmental Forum on Forests*

- (IFF 3), Geneva, Switzerland 3-14 may 1999. IUFRO Occasional paper No.13. 21-37 pp.
- Hempel, L.C. 1996. *Environmental Governance: The Global Challenge*. Island Press, Washington D.C. 291 p.
- Hey, E. 1998. The European Community's Courts and International Environmental Agreements. *Review of European Community and International Environmental Law* 7(1), 4-10.
- Hickey, G.M. 2004. Regulatory approaches to monitoring sustainable forest management. In *International Forestry Review*, Volume 6, Number 2, 2004. 89-98 pp.
- Hickey, G.M., Innes, J.L., Kozak, R.A., Bull, G.Q. & Vertinsky, I. 2006. Monitoring and information reporting for sustainable forest management: An inter-jurisdictional comparison of soft law standards. *Forest Policy and Economics* 9(4), 297-315 pp.
- Hickey, G.M., Innes, J.L., Kozak, R.A., Bull, G.Q. & Vertinsky, I. 2005. Monitoring and information reporting for sustainable forest management: An international multiple case study analysis. *Forest Ecology and Management* 209(3), 237-259 pp.
- Hickey, G.M. and Innes, J.L. 2005. Monitoring sustainable forest management in different jurisdictions. *Environmental Monitoring and Assessment* 108(1-3), 241-260 pp.
- Hogl, K. 1999. National Forest Programmes – A Request for Intersectoral and Multi-Level Coordination some Actor-focused Considerations. In Glück, P., Oesten, G., Schanz & Volz, K-R. (Eds.). *Formulation and Implementation of National Forest Programmes. Vol I: Theoretical Aspects. Proceedings of the International Seminar held in Freiburg, Germany 18-20 May 1998*. EFI Proceedings No. 30, 1999. European Forest Institute, Joensuu. 163-183 pp.
- Hooghe, L. & Marks, G. 2001. *Multi-level Governance and European Integration*. Rowman & Littlefield Publishers, Inc. 251 p.
- Hossain, K. 1995. Evolving principles of sustainable development and good governance. In Ginther, K. & De Waart, P.J.I.M. (Eds.) *Sustainable development and good governance*. Martinus Nijhoff Publishers. 15-22 pp.
- Howlett, M & Ramesh, M. 1995. *Studying Public Policy: Policy Cycles and Policy Subsystems*. Oxford University Press. 239 pp.
- Humphreys, D. 2006. *Logjam: Deforestation and the Crisis of Global Governance*. Earthscan. 302 p.
- Humphreys, D. 2005. The Elusive Quest for a Global Forests Convention. *Review of European Community & International Environmental Law*. Volume 14, Issue 1. 1-10 pp.
- Humphreys, D. 2003. The United Nations Forum on Forests: Anatomy of a stalled international process. In *Global Environmental Change* 13(4), 319-323.
- Humphreys, D. 2001a. A Global Forests Convention: Distant dream of false utopia? Box 1.3. In: Palo, M., Uusivuori, J., Mery, G. (Eds.), 2001. *World Forests, Markets and Policies*. World Forests, Vol III. Kluwer Academic Publishers, Dordrecht/Boston/London, pp. 18-19.
- Humphreys, D. 2001b. Forest negotiations at the United Nations: explaining cooperation and discord. *Forest Policy and Economics* 3(3-4), 125-135.
- Humphreys, D. 1999. The Emerging Forests Regime. *Global Environmental Change* 9(3): 251-254.
- Humphreys, D. 1996. *Forest Politics. The Evolution of International Cooperation*. Earthscan Publications Ltd, London. 299 p.
- IBC 2005. National biodiversity strategy and action plan. Institute of Biodiversity Conservation, Addis Ababa. 103 p. Available at: <http://ibc-et.org/ibc/pubn/files/NBSAP.zip>
- ILA 2002. New Delhi Declaration of Principles of International Law relating to Sustainable Development. Resolution 3/2002, Sustainable Development. The 70th Conference of the International Law Association, New Delhi, India, 2-6 April 2002. Available at: <http://www.ila-hq.org/pdf/Sustainable%20Development/Sus%20Dev%20Resolution%20+%20Declaration%202002%20English.pdf>
- INC 2005. The Interim National Constitution of the Republic of the Sudan. Available at: http://www.sudan-embassy.de/c_Sudan.pdf
- ISCI 1996a. Intergovernmental Seminar on Criteria and Indicators for Sustainable Forest Management. Background Document. August 19-22, 1996, Helsinki, Finland. Ministry of Agriculture and Forestry. Painomerkki Oy. 131 p.
- ISCI 1996b. Intergovernmental Seminar on Criteria and Indicators for Sustainable Forest

- Management. Final Document. August 19-22, 1996, Helsinki, Finland. Ministry of Agriculture and Forestry. Painomerkki Oy. 123 p.
- Iyob, R. and Khadiagala, G.M. 2006. Sudan: the elusive quest for peace. International Peace Academy Occasional Paper Series. Lynne Rienner Publishers, Inc. 224 p.
- Johnson, D.H. 2003. The root causes of Sudan's civil wars. African Issues. Indiana University Press. 234 p.
- Johnson, S.P. and Corcelle, G. 1997. The Environmental Policy of the European Communities. Second Edition. International Environmental Law and Policy Series. Kluwer Law International. 535 p.
- Jokela, M. 2006. The European Union in Global Forest Governance: The Dynamics of Social Learning in the Construction of Global Problems and Actorness. Turun Yliopiston Julkaisuja, Sarja B, Osa 289, Humaniora. Turun Yliopisto. Painosalama Oy, Turku. 287 p.
- Jokela, M. 2004. The Role of the European Union in Global Desertification Politics. In Herne, K. & Jokela, M. (Eds.). Fairness, Environment and Multilateralism: Approaches to Global Problems and Governance. SAFIR-project. Finnish Global Change Research Programme FIGARE. Department of Political Science, University of Turku. Digipaino, Turku. 63- 94 p.
- Joyner, C.C. 2005. International Law in the 21st Century: Rules for Global Governance. Roman & Littlefield Publishers Inc. 361 p.
- Joyner, C.C. 1997. Conclusion: The United Nations as International Law-Giver. In Joyner, C.C. (Ed.). The United Nations and International Law. A Co-publication with the American Society of International Law. Cambridge University Press. 432-457 pp.
- Kaarakka, V. & Holmberg, G. 1998. Environmental Conflicts and Development Co-operation with Special Reference to Conservation and Sustainable Management of Forests. Tropical Silviculture Unit, Department of Forest Ecology, University of Helsinki. 63 p.
- Kant, S. & Berry, R.A. 2005a. Sustainability, Institutions and Forest Management. In Kant, S. & Berry, R.A. (Eds.). Institutions, Sustainability and Natural Resources. Institutions for Sustainable Forest Management. Springer. 1-20 pp.
- Kant, S. & Berry, R.A. 2005b. Organizations, Institutions, External Setting and Institutional Dynamics. In Kant, S. & Berry, R.A. (Eds.). Institutions, Sustainability and Natural Resources. Institutions for Sustainable Forest Management. Springer. 83-113 pp.
- Karns, M.P. & Mingst, K.A. 2004. International Organizations. The Politics and Processes of Global Governance. Lynne Rienner Publishers. 603 p.
- Kates, R.W., Clark, W.C., Corell, R., Hall, M.J., Jaeger, C.C., Lowe, I., McCarthy, J. J., Schellnhuber, H.J., Bolin, B., Dickson, N.M., Faucheux, S., Gallopin, G.C., Grubler, A., Huntley, B., Jäger, J., Jodha, N.S., Kasperson, R.E., Mabogunje, A., Matson, P., Mooney, H., Moore III, B., O'Riordan, T. and Svedin, U. 2001. Environment and Development: Sustainability Science. Policy Forum. Science, Vol. 292, no. 5517: 641-642.
- Khalid, M. 2003. War and peace in Sudan: a tale of two countries. Kegan Paul Limited. 536 p.
- Klabbers, J. 2002. An Introduction to International Institutional Law. Cambridge University Press. 399 p.
- Keohane, R.O. 2005. After Hegemony. Cooperation and Discord in the World Political Economy. Princeton University Press. 290 p.
- Keohane, R.O. 2003. Governance in a Partially Globalized World. In Held, D. & McGrew, A. (Eds.). Governing Globalization. power, Authority and Global Governance. 325-347 pp.
- Keohane, R.O. & Nye Jr. J.S. 2000. Introduction. In Nye Jr., J.S. & Donahue, J.D. (Eds.) Governance in a Globalizing World. Visions of Governance for the 21st Century, Cambridge, Massachusetts. Brookings Institution Press, Washington D.C. 1-41 p.
- Kirton, J.J. & Trebilcock, M.J. 2004. Introduction: Hard Choices and Soft law in Sustainable Global Governance. In Kirton, J.J. & Trebilcock M.J. (Eds.) Hard Choices, Soft Law: Voluntary Standards in Global Trade, Environment and Social Governance. Ashgate. 3-29 pp.
- Kiss, A. & Shelton, D. 2004. International Environmental Law. Third Edition. Transnational Publishers, Inc. 837 p.
- Kiss, A. & Shelton, D. 1997. Manual of European Environmental Law. Second Edition. Cambridge University Press. 622 p.
- Kleindorfer, P.R., Kunreuther, H.C. & Schoemaker, P.J.H. 1993. Decision Sciences. An Integrative

- Perspective. Cambridge University Press. 470 p.
- Komiyama, H. and Takeuchi, K. 2006. Sustainability Science: building a new discipline. Editorial. *Sustainability Science* 1: 1-6.
- Koutrakos, P. 2006. *EU International Relations Law. Volume 9, Modern Studies in European Law.* Hart Publishing. 542 p.
- Krasner, S.D. 1982. Structural causes and regime consequences: regimes as intervening variables. In Krasner, S.D. (Ed.). *International Organization. Volume 36, Number 2, Spring 1982.* The Massachusetts Institute of Technology. pp. 185-205.
- Krämer, L. 2006. The EU: A Regional Model? In Winter, G. (Ed.). *Multilevel Governance of Global Environmental Change: Perspectives from Science, Sociology and the Law.* Cambridge University Press. 333-357 pp.
- Krämer, L. 2000. *E.C. Environmental Law. Fourth Edition.* Sweet & Maxwell, London. 329 p.
- Lafferty, W.M. & Langhelle, O. 1999. Sustainable Development as Concept and Norm. In Lafferty, W.M. & Langhelle, O. (Eds.). *Towards Sustainable Development. On the Goals of Development – and the Conditions of Sustainability.* MacMillan Press Ltd. 1-29 pp.
- Kyoto Protocol 1998. The Kyoto Protocol to the United Nations Framework Convention on Climate Change. Available at: <http://unfccc.int/resource/docs/convkp/kpeng.pdf>
- Lammerts van Bueren, E.M. and Blom, E.M. 1997. Hierarchical framework for the formulation of sustainable forest management standards. The Tropenbos Foundation. Backhuys Publishers, The Netherlands. 82 p.
- LAMPTESS 2009. Policy Assignment. Implementation Phase Mission Report. Prepared by Roope Husgafvel, Viikki Tropical Resources Institute (VITRI), University of Helsinki. Project on Landscape Management Planning and Training for the Environment in South Sudan (LAMPTESS). 24 p.
- Lang, W. 1995. From Environmental Protection to Sustainable Development: Challenges for International Law. In Lang, W. (Ed.). *Sustainable Development and International Law. International Environmental Law and Policy Series.* 275-290 pp.
- Larson, A.M. and Ribot, J.C. 2007. The poverty of forestry policy: double standards on an uneven playing field. *Sustainability Science* 2: 189-204
- Larson, A.M. and Soto, F. 2008. Decentralization of Natural Resources Governance Regimes. *Annual Review of Environment and Resources*, Vol. 33: 213-239.
- Laxen, J. 2007. Is Prosopis a curse or a blessing? – An ecological-economic analysis of an invasive alien tree species in Sudan. *Tropical Forestry Reports* 32. Viikki Tropical Resources Institute (VITRI), University of Helsinki. 199 p.
- Le Master, D.C. 2003. Institutional framework necessary for forest management in a market economy. In Le Master, D., Herbst, P. & Schmithüsen, F. (Eds.). *Experiences with New Forest and Environmental Laws in European Countries with Economies in Transition. Proceedings of the 4th International Symposium; Jaunmokas, Latvia; August 2002; Organized by the IUFRO Research Group 6.13.00. Forstwissenschaftliche Beiträge der Professur Forstpolitik und Forstökonomie, Nr.29; ETH, Zürich 2003.* 1-10 pp. Available at: http://www.fowi.ethz.ch/ppo/PDF-Dateien/FWB_29.pdf
- Le Master, D.C., Block, N.E. & Owubah, C. E. 2002. Selection of policy tools in multilevel international networks. In Schmithüsen, F., Iselin, G. & Herbst, P. (Eds.). 2002. *Forest Law and Environmental Legislation – Contributions of the IUFRO Research Group 6.13. Proceedings VII. Forstwissenschaftliche Beiträge der Professur Forstpolitik und Forstökonomie Nr. 27; ETH, Zürich, 2002.* pp. 175-184
- Lewis, D. 2006. Global Governance and the Search for Justice. In Lewis, D. (Ed.). *Global Governance and the Quest for Justice. Volume 1: International and Regional Organisations.* HART Publishing. Oxford and Portland, Oregon. 1-20 pp.
- Lewis Jr, R. & Koch, N.E. 1999. Forest Science-Policy Interface. In IUFRO Task Force Forest Science-Policy Interface. Papers presented at a Side Event of the Third Session of the Intergovernmental Forum on Forests (IFF 3), Geneva, Switzerland 3-14 may 1999. IUFRO Occasional paper No.13. 1-5 pp.
- Liberatore, A. 1997. The integration of sustainable development objectives into EU policy-making. In Baker, S., Kousis, M., Richardson, D. & Young, S. (Eds.). *The Politics of Sustainable Development. Theory, policy and practice within the European Union.* Routledge. 107- 126 pp.

- Luukkanen, O., Katila, P., Elsiddig, E., Glover, E.K., Sharawi, H. and Elfadl, M. 2006. Partnership between public and private actors in forest-sector development: Options for dryland Africa based on experiences from Sudan, with case studies on Laos, Nepal, Vietnam, Kenya, Mozambique and Tanzania. Tropical Forestry Reports 31. Viikki Tropical Resources Institute (VITRI), University of Helsinki. 119 p.
- Maathai, W. 2009. The challenge for Africa. Arrow Books. 319 p.
- Maduro, M.P. 2006. From Constitutions to Constitutionalism: A Constitutional Approach for Global Governance. In Lewis, D. (Ed.). Global Governance and the Quest for Justice. Volume 1: International and Regional Organisations. HART Publishing. Oxford and Portland, Oregon. 227-252 pp.
- Maini, J.S. 1997. Introduction. In Grayson, A.J. & Maynard, W.B. (Eds.). The World's Forests-Rio+5: International Initiatives towards Sustainable Management. The Commonwealth Forestry Association, Oxford Forestry Institute, Oxford. ix-x p.
- Maini, J.S. 1995. The International Dialogue on Forests: A Preliminary Assessment. In Grayson, A.J. (Ed.). The World's Forests: International Initiatives since Rio. The Commonwealth Forestry Association, Oxford Forestry Institute, Oxford. 1-4 p.
- Maini, J.S. 1992. Sustainable development of forests. Unasylva No. 169. Sustainability. Volume 43-1992/2. An international journal of forestry and forest industries. FAO. Available at: <http://www.fao.org/docrep/u6010e/u6010e03.htm#sustainable%20development%20of%20forests>
- Maini, J. S. and Schmithüsen, F. 1991. An International Instrument on Forests. Working document Elaborated as a Contribution to the Preparatory Process for the United Nations Conference on Environment and Development. Swiss Federal Institute of Technology, Department of Forest Sciences, Chair of Forest Policy and Forest Economics. 33 p. Available at: http://e-collection.ethbib.ethz.ch/ecol-pool/incoll/incoll_475.pdf
- Marks, G. & Hooghe, L. 2004. Contrasting Visions of Multi-level Governance. In Bache, I & Flinders, M. (Eds.). Multi-level Governance. Oxford University Press. 15-30 pp.
- Mayers, J. Bass, S. and Macqueen, D. 2005. The pyramid: a diagnostic and planning tool for good forest governance. Power tools series. International Institute for Environment and Development, London, UK. Available at: http://www.policy-powertools.org/Tools/Engaging/docs/pyramid_tool_english.pdf
- McCool, S.F. & Stankey, G. 2001. Representing the Future: A Framework for Evaluating the Utility of Indicators in the Search for Sustainable Forest Management. In Raison, R.J., Brown, A.G. & Flinn, D.W. (Eds.). Criteria and Indicators for Sustainable Forest Management. CABI. IUFRO Research Series 7. 93- 105 pp.
- McGrew, A. 2001. Globalization and Global Politics. In Baylis, J. & Smith, S. (Eds.) with the assistance of Patricia Owens. The Globalization of World Politics. An Introduction to International relations. Third Edition. Oxford University Press. 19-40 pp.
- MCPFE 2009. Terms of reference for an MCPFE Working Group on preparing options for a decision on a possible legally binding agreement on forests in Europe. Adopted by the Expert Level Meeting, 24-25 November, 2009, Oslo, Norway. Available at: http://www.foresteurope.org/filestore/mcpfe/Meetings/2010/1st_meeting_LBA_WG_on_preparing_options_for_a_decision_on_a_possible_LBA/TermsOfReferences_MCPFEWGonpreparingforadecisiononLBAinEurope.pdf
- MCPFE 2007. Warsaw Declaration. Fifth Ministerial Conference on the Protection of Forest in Europe. 5-7 November, 2007, Warsaw, Poland. Available at: http://www.foresteurope.org/filestore/mcpfe/Conferences/Varsaw/warsaw_declaration.pdf
- MCPFE 2007b. Combating illegal harvesting and related trade of forest products in Europe. Report for the MCPFE Workshop held in Madrid, Spain, 3-4 November, 2005. Available at: http://www.foresteurope.org/filestore/mcpfe/Publications/pdf/illegal_2007.pdf
- MCPFE 2003. Vienna Living Forest Summit Declaration. European Forests – Common benefits, shared responsibilities. Fourth Ministerial Conference on the Protection of Forest in Europe. 28-30 April, 2003, Vienna, Austria. Available at: http://www.foresteurope.org/filestore/mcpfe/Conferences/Vienna/vienna_declaration.pdf
- MCPFE 1998. Pan-European Criteria and Indicators for Sustainable Forest Management. Annex 1, Resolution L1. Third Ministerial Conference on the Protection of Forests in Europe, 2-4 June 1998, Lisbon, Portugal. Available at:

- http://www.foresteurope.org/filestore/mcpfe/Conferences/Lisbon/lisbon_resolution_12a1.pdf
- MCPFE 1993. Resolution H1. General Guidelines for the Sustainable Management of Forests in Europe. Second Ministerial Conference on the Protection of Forests in Europe, 16-17 June 1993, Helsinki/Finland. Available at:
http://www.mcpfe.org/filestore/mcpfe/Conferences/Helsinki/helsinki_resolution_h1.pdf
- MCPFE 1990. General Declaration. Ministerial Conference for the Protection of Forest in Europe. 18 December, 1990, Strasbourg, France. Available at:
http://www.foresteurope.org/filestore/mcpfe/Conferences/Strasbourg/strasbourg_declaration.pdf
- Merlo, M. & Paveri, M. 1997. Formation and implementation of Forest Policies: A Focus on the Policy Tools Mix. In F. Social Dimensions of Forestry's Contribution to Sustainable Development. G. Policies, Institutions and Means for Sustainable Forestry Development. Proceedings of the XI World Forestry Congress, 13-22 October 1997, Antalya. Volume 5. 233-254 p.
- Mery, G., Alfaro, R.I., Kanninen, M. & Lobovikov, M. 2005a. Changing Paradigms in Forestry: Repercussions for People and Nature. In Mery, G., Alfaro, R., Kanninen, M. & Lobovikov, M. (Eds.) Forests in the Global Balance – Changing Paradigms. pp. 13-20.
- Mery, G., Alfaro, R., Kanninen, M., Lobovikov, M., Vanhanen, H. & Pye-Smith, C. 2005b. Forests for the New Millennium- Making Forests Work for People and Nature. Ministry of Foreign Affairs of Finland and International union of Forest Research Organizations. (IUFRO), Helsinki. 36 p.
- Ministry of Agriculture and Forestry 2006. Sudan National Action Programme (SNAP). A Framework for Combating Desertification in Sudan in the Context of the United Nations Convention to Combat Desertification. National Drought and Desertification Control Unit (NDDCU). Republic of Sudan. 54 p.
- MoFED 2006. Ethiopia: Building on Progress. A Plan for Accelerated and Sustained Development to End Poverty (PASDEP). (2005/06-2009/10). Volume I: Main Text. Ministry of Finance and Economic Development (MoFED). September, 2006, Addis Ababa. 267 p. Available at:
<http://www.eap.gov.et/content/files/Documents/PASDEP%202005%202009.pdf>
- MOFED 2002. Ethiopia: Sustainable development and poverty reduction program. Ministry of Finance and Economic Development (MOFED), Federal Democratic Republic of Ethiopia. 202 p. Available at:
http://siteresources.worldbank.org/INTETHIOPIA/Overview/20207639/2002_07_prsp.pdf
- MOI 2001. The Government of the Federal Democratic Republic of Ethiopia. Rural development policies, strategies and instruments. Press and Audiovisual Department, Ministry of Information. Draft Translation. November 2001, Addis Ababa. Available at:
http://www.eap.gov.et/content/files/Documents/Rural_Development_Policies.pdf
- Montreal Process, 1995. Criteria and indicators for the conservation and sustainable management of temperate and boreal forests. Available at:
http://www.mpci.org/rep-pub/1995/santiago_e.html#c1
- Moyo, D. 2010. Dead Aid: Why aid makes things worse and how there is another way for Africa. Penguin Books. 188 p.
- Munro-Hay, S. 2002. Ethiopia, the unknown land: a cultural and historical guide. I.B Tauris & Co Ltd. 390 p.
- MWR 2007. Climate Change National Adaptation Programme of Action (NAPA) of Ethiopia. Ministry of Water Resources (MWR) and National Meteorological Agency. The Federal Democratic Republic of Ethiopia. June 2007, Addis Ababa. Supported by the UNDP/GEF. 85 p. Available at: <http://unfccc.int/resource/docs/napa/eth01.pdf>
- Nayyar, D. & Court, J. 2002. Governing Globalization: Issues and Institutions. Policy Brief No.5. UNU World Institute for Development Economics (UNU/WIDER). 30 p. Available at:
<http://www.wider.unu.edu/publications/pb5.pdf>
- Nelson, H., Vertinsky, I.B., Luckert, M.K., Ross, M. & Wilson, B. 2003. Designing institutions for sustainable forest management. Chapter 7. In Towards Sustainable Management of the Boreal Forests. Edited by P.J. Burton, C. Messier, D.W. Smith & W.L. Adamowicz. NRC Research Press, Ottawa, Ontario, Canada. pp. 213-259 p.
- Nilsson, S. 2004. Scenarios and Forest Policy Responses. In Buck, A., Burger, G. & Wofrum, G.

- (Eds.). IUFRO Occasional Paper 16. Proceedings of the International Symposium convened on the occasion of the 110th anniversary of IUFRO on 9-10 October 2002 in Vienna, Austria. 51-73 pp.
- NLBI 2007. The Non-legally binding instrument on all types of forests. UN General Assembly Resolution 62/98. Available at: <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N07/469/65/PDF/N0746965.pdf?OpenElement>
- OECD 2004. OECD Principles of Corporate Governance. 66 p. Available at: <http://www.oecd.org/dataoecd/32/18/31557724.pdf>
- O'Laughlin, J. 2004. Policy Analysis for Sustainable Forestry: National Forest Case Study. *Journal of Forestry*. Volume 102, Number 2. Society of American Foresters. 34-41 pp.
- Onak, T.T. 2005. The Causes and Consequences of Deforestation on Woodlands Production in the Central Clay Plains of the Sudan: A Case Study of Er Renk Area. Institute of Environmental Studies. University of Khartoum. 102 p.
- Pantuliano, S. 2007. The land question: Sudan's peace nemesis. HPG Working Paper, December 2007. Humanitarian Policy Group (GPG) and Overseas Development Institute (ODI). 11 p. Available at: <http://www.odi.org.uk/hpg/papers/wplandsudan.pdf>
- Paradell-Trius, L. 2000. Principles of International Environmental Law: an Overview. *Review of European Community and International Environmental Law*, 9(2). 93-99 pp.
- Raison, R.J., Flinn, D.W. & Brown, A.G. 2001a. Introduction. In Raison, R.J., Brown, A.G. & Flinn, D.W. (Eds.). *Criteria and Indicators for Sustainable Forest Management*. CABI. IUFRO Research Series 7. 1-3 pp.
- Raison, R.J., Flinn, D.W. & Brown, A.G. 2001b. Application of Criteria and Indicators to Support Sustainable Forest Management: Some Key Issues. In Raison, R.J., Brown, A.G. & Flinn, D.W. (Eds.). *Criteria and Indicators for Sustainable Forest Management*. CABI. IUFRO Research Series 7. 5-18 pp.
- Raison, R.J., Flinn, D.W. & Brown, A.G. 2001c. Conclusions. In Raison, R.J., Brown, A.G. & Flinn, D.W. (Eds.). *Criteria and Indicators for Sustainable Forest Management*. CABI. IUFRO Research Series 7. 441-443 pp.
- Rametsteiner, E. 2001. SFM Indicators as Tools in Political and Economic Contexts: Actual and Potential Roles. In Raison, R.J., Brown, A.G. & Flinn, D.W. (Eds.). *Criteria and Indicators for Sustainable Forest Management*. CABI. IUFRO Research Series 7. 107- 130 pp.
- Rao, P.K. 2000. *Sustainable Development. Economics and Policy*. Blackwell Publishers. 393 p.
- Redgwell, C. 2003. *International Environmental Law*. In: Evans, M.D. (Ed.), *International Law*. Oxford University Press. 657-688 p.
- Reid, D. 1995. *Sustainable Development. An Introductory Guide*. Earthscan, London. 261 p.
- Ribot, J.C. 2010. Forestry and democratic decentralization in Sub-Saharan Africa: a rough review. In German, L.A., Karsenty, A. and Tiani, A-M. (Eds.). *Governing Africa's forests in a globalized world*. Earthscan. 29-55 pp.
- Ripley, R.B. 1995. Stages of the Policy Process. In McCool, D.C. *Public Policy, Theories, Models, and Concepts. An Anthology*. Prentice-Hall Inc. 157-162 pp.
- Rittberger, V. & Zangl, B. 2006. *International Organization: Polity, Politics and Policies*. Palgrave Macmillan.
- Rolandsen, O.H. 2005. *Guerrilla government: political changes in the Southern Sudan during the 1990s*. Nordiska Afrikainstitutet. 201 p.
- Rosenau, J.N. 2003. Governance in a New Global Order. In Held, D. & McGrew, A. (Eds.). *Governing Globalization. power, Authority and Global Governance*. 70-86 pp.
- Sands, R. 2005. *Forestry in a Global Context*. CABI Publishing. Cromwell Press, Trowbridge. 262 p.
- Sands, P. 2003. *Principles of International Environmental Law. Second Edition*. Cambridge University Press. 1116 p.
- Sands, P. 1999. *International Environmental Law Ten Years On. Review of European Community and International Environmental Law*, 8(3). 239-242 pp.
- Sands, P. 1995. *International Law in the Field of Sustainable Development: Emerging Legal Principles*. In Lang, W. (Ed.). *Sustainable Development and International Law. International Environmental Law and Policy Series*. 53-66 pp.

- Schachter, O. 1997. The UN Legal Order: An Overview. In Joyner, C.C. (Ed.). The United Nations and International Law. A Co-publication with the American Society of International Law. Cambridge University Press. 3-26 pp.
- Schermer, H.G. & Blokker, N.M. 1995. International Institutional Law. Unity within diversity. Third revised edition. Martinus Nijhoff Publishers, The Hague, London ja Boston. 1305 p.
- Schmithüsen, F. 2004a. Role of landowners in new forest legislation. In Schmithüsen, F., Trejbalova, K. & Vancura, K. (Eds.). 2004. Legal aspects of European sustainable development. Proceedings of the 5th International Symposium Zidlochovice, Czech Republic. Forestry and Game Management Research Institute Jiloviste-Strnady. 46 – 56 p. Available at: http://www.fowi.ethz.ch/ppo/PDF-Dateien/Zidlochovice_04-05-25_Proceedings.pdf
- Schmithüsen, F. 2004b. Forest Policy Developments in Changing Societies: Political Trends and Challenges to Research. In Glück, P., Oesten, G., Schanz & Volz, K-R. (Eds.). Formulation and Implementation of National Forest Programmes. Vol I: Theoretical Aspects. Proceedings of the International Seminar held in Freiburg, Germany 18-20 May 1998. EFI Proceedings No. 30, 1999. European Forest Institute, Joensuu. 87-99 pp.
- Schmithüsen, F., 2003a. The Global Revolution in Sustainable Forest Policy – a European Perspective. Pinchot Lecture Series; Pinchot Institute for Conservation, Washington D.C. 23 pp. Available at: http://www.fowi.ethz.ch/ppo/PDF-Dateien/IR-03_2.pdf
- Schmithüsen, F. 2003b. Understanding cross-sectoral policy impacts – policy and legal aspects. In Cross-sectoral Policy Impacts between Forestry and other Sectors. FAO Forestry Paper 142. Edited by Yves C. Dubé and Franz Schmithüsen. Rome. 5- 44 p. Available at: <http://www.fao.org/docrep/006/y4653e/y4653e00.htm>
- Schmithüsen, F. 1996. Proposal on the Structure and Content of an International Instrument for the Protection, Conservation and Development of Forests – IIF. Working Papers: International Series 96/5. Chair of Forest Policy and Forest Economics, ETH Zürich. Available at: http://www.fowi.ethz.ch/ppo/PDF-Dateien/IR-96_5.pdf
- Segger, M-C. C. & Khalfan, A. 2006. Sustainable development law. Principles, practices & prospects. Oxford University Press. 464 p.
- Segger, M-C. C., Khalfan, A. & Deere, C. 2006. Sustainable international natural resources law. In Sustainable development law. Principles, practices & prospects. Oxford University Press. 295-310 p.
- Senden, L. 2004. Soft Law in European Community Law. Modern Studies in European Law. Volume 1: Soft Law in European Community Law. Hart Publishing. 533 p.
- Seppänen, S. 2003. Good Governance in International Law. The Erik Castrén Institute Research Reports 13/2003. Hakapaino, Helsinki. 148 p.
- Shaw, J. 2000. Law of the European Union. Palgrave Macmillan, UK. 591 p.
- Shelton, D., 2003. International Law and ‘Relative Normativity’. In: Evans, M.D. (Ed.), International Law. Oxford University Press. 145-172 p.
- Siry, J.P., Cubbage, F.W. & Ahmed, M.R. 2005. Sustainable forest management: global trends and opportunities. Forest Policy and Economics 7(4), 551-561.
- Skala-Kuhmann, A. 1996. Legal Instruments to Enhance the Conservation and Sustainable Management of Forest Resources at the International Level. Commissioned by Federal Ministry for Economic Cooperation and Development (BMZ), Bonn and Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), Eschborn. 37 p. Available at: <http://www2.gtz.de/dokumente/bib/97-0370.pdf>
- Smith, M.E. 2004. Europe’s Foreign and Security Policy: The Institutionalization of Cooperation. Cambridge University Press. 291 p.
- Snyder, F. 1993. Soft Law and Institutional Practice in the European Community. EUI Working Paper No. 93/5. Department of Law. European University Institute, Florence. 36 p.
- Speth, J.G. and Haas, P.M. 2006. Global Environmental Governance. Foundations of Contemporary Environmental Studies. Island Press. 179 p.
- Szaro, R.C., Langor, D. & Yapi, A.M. 2000. Sustainable forest management in the developing world: Science challenges and contributions. Landscape and Urban Planning 47(3-4), 135-142.
- Szasz, P.C. 1997. General Law-making Processes. In Joyner, C.C. (Ed.). The United Nations and International Law. A Co-publication with the American Society of International Law.

- Cambridge University Press. 27-64 pp.
- Taddese, G. 2001. Land degradation: a challenge to Ethiopia. In *Environmental Management*, Volume 27, Number 6. 815-824 pp.
- Tarasofsky, R. 2002. Recent Developments in International Treaties Relating to Forests. Institute for Global Environmental Strategies. Policy Trend Report 2002: 143-149. Available at: <http://www.iges.or.jp/en/fc/pdf/report5/PTR0210.pdf>
- Tarasofsky, R.G. 1999a. Assessing the International Forest Regime: Gaps, Overlaps, Uncertainties and Opportunities. In: Tarasofsky, R. (Ed.), *Assessing the International Forests Regime*. IUCN Environmental Policy and Law Paper No.37. IUCN Environmental Law Centre. 2-12 p. Available at: <http://www.iucn.org/themes/law/pdffdocuments/eplp37en.pdf>
- Tarasofsky, R.G. 1999b. Policy Planning without a Legally-Binding Framework? – The Case of National Forest Programmes. In Glück, P., Oesten, G., Schanz & Volz, K-R. (Eds.). *Formulation and Implementation of National Forest Programmes. Vol I: Theoretical Aspects. Proceedings of the International Seminar held in Freiburg, Germany 18-20 May 1998*. EFI Proceedings No. 30, 1999. European Forest Institute, Joensuu. 153-160 pp.
- Taylor, P. & Curtis, D. 2001. The United Nations. In Baylis, J. & Smith, S. (Eds.) with the assistance of Patricia Owens. *The Globalization of World Politics. An Introduction to International relations*. Third Edition. Oxford University Press. 406-424 pp.
- Thirlway, H. 2003. The Sources of International Law. In: Evans, M.D. (Ed.), *International Law*. Oxford University Press. 559-587p.
- Tridimas, T. 2006. *The General Principles of EU Law*. Second Edition. Oxford University Press. 591 p.
- Trubek, D.M., Cottrell, P. & Nance, M. 2006. ‘Soft law’, ‘Hard Law’ and EU Integration. In De Búrca, G. & Scott, J. (Eds.). 2006. *Law and New Governance in the EU and the US*. Hart Publishing. 65-94 pp.
- UCBP 2009. University Capacity Building Programme. Ministry of Education & Ministry of Capacity Building. Available at: <http://www.ucbp-ethiopia.com/>
- Ulfstein, G. 1997. Effectiveness of International Environmental Law: Regulations, Decision-making, Participation and Enforcement. In Basse, E.M. (Ed.). *Environmental Law: From International to National Law*. GadJura. 345-362 pp.
- UN 2007. Non-legally binding instrument on all types of forests. A/RES/62/98. Resolution adopted by the General Assembly. Agenda item 54, Sixty-second session. 31, January 2008. Available at: <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N07/469/65/PDF/N0746965.pdf?OpenElement>
- UN 2000a. The United Nations Millennium Declaration. Available at: <http://www.un.org/millennium/declaration/ares552e.htm>
- UN 2000b. Global Ministerial Environment Forum. The Sixth Special Session of the Governing Council of the United Nations Environment Programme. The Malmö Ministerial Declaration. Available at: <http://www.unep.org/malmo/malmo2.pdf>
- UN 2002a. The World Summit on Sustainable Development. The Johannesburg Declaration on Sustainable Development. Available at: http://www.johannesburgsummit.org/html/documents/summit_docs/1009wssd_pol_declaration.doc
- UN 2002b. Plan of Implementation of the World Summit on Sustainable Development. Available at: http://www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/WSSD_PlanImpl.pdf
- UN 1997. The United Nations Nairobi Declaration. Available at: <http://www.unep.org/Documents.multilingual/Default.asp?DocumentID=287&ArticleID=1728&l=en>
- UN 1992a. Rio Declaration on Environment and Development. Available at: <http://www.unep.org/Documents/Default.asp?DocumentID=78&ArticleID=1163>
- UN 1992b. The Non-Legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests. United Nations Conference on Environment and Development Rio de Janeiro, 3-14 June 1992. Available at: <http://www.un.org/documents/ga/conf151/aconf15126-3annex3.htm>
- UN 1972. Declaration of the United Nations Conference on the Human Environment. Stockholm, 5-16 June 1972. Available at: <http://www.unep.org/Documents.multilingual/Default.asp?DocumentID=97&ArticleID=1503>

- UN 1946. Statute of the International Court of Justice. Available at:
<http://www.icj-cij.org/documents/index.php?p1=4&p2=2&p3=0>
- UNCCD and CBD 2004. Workshop on Forests and Forest Ecosystems: Promoting synergy in the implementation of the three Rio conventions. Organized by the UNCCD and CBD secretariats, in cooperation with the UNFCCC secretariat. 5-7, April 2004, Viterbo, Italy. Available at:
<http://www.unccd.int/workshop/docs/finalreport.pdf>
- UNCTAD 2006. Guidance on Good Practices in Corporate Governance Disclosure. The United Nations. 42 p. Available at: http://www.unctad.org/en/docs/iteteb20063_en.pdf
- UNCTAD 2004. A Manual for the Preparers and Users of Eco-efficiency Indicators. 114 p. Available at: http://www.unctad.org/en/docs/iteipc20037_en.pdf
- UNCTAD 2002. Guidance Manual. Accounting and Financial Reporting for Environmental Costs and Liabilities. The United Nations. 95 p. Available at:
http://www.unctad.org/en/docs/iteeds4_en.pdf
- UNDP 2010. The Millennium Development Goals (MDGs). Available at: <http://www.undp.org/mdg/>
- UNDP 2009a. The United Nations Development Programme in Ethiopia. Available at:
<http://www.et.undp.org/>
- UNDP 2009b. The United Nations Development Programme in Sudan. Available at:
<http://www.sd.undp.org/index.htm>
- UNEP 2007. Sudan – Post-Conflict Environmental Assessment. United Nations Environment Programme. 354p.
- UNEP 2008. Manual on Compliance with and Enforcement of Multilateral Environmental Agreements. Division of Environmental Law and Conventions. Available at:
<http://www.unep.org/dec/onlinemanual/Home/tabid/36/Default.aspx>
- UNFCCC 2009a. Methodological guidance for activities relating to reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries. Draft decision, CP.15. Available at: http://unfccc.int/files/na/application/pdf/cop15_ddc_auv.pdf
- UNFCCC 2009b. Ad Hoc Working Group on Long-term Cooperative Action under the Convention. Resumed seventh session, Barcelona, 26 November 2009. Contact group on enhanced action on mitigation and its associated means of implementation. Subgroup on paragraph 1(b) (iii) of the Bali Action Plan. Draft text. Available at:
http://unfccc.int/files/meetings/ad_hoc_working_groups/lca/application/pdf/awglca1biinp39051109.pdf
- UNFCCC 2007a. The Bali Action Plan. Decision 1/CP.13. Available at:
http://unfccc.int/files/meetings/cop_13/application/pdf/cop_bali_action.pdf
- UNFCCC 2007b. Reducing emissions from deforestation in developing countries: approaches to stimulate action. Decision 2/CP.13. Available at:
http://unfccc.int/files/meetings/cop_13/application/pdf/cop_redd.pdf
- UNFCCC 2006. Tables of the common reporting format for land use, land-use change and forestry. Decision 14/CP.11. Available at:
<http://unfccc.int/resource/docs/2005/cop11/eng/05a02.pdf#page=2>
- UNFCCC 2004. Good practice guidance for land use, land-use change and forestry activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol. Decision 15/CP.10. Available at:
<http://unfccc.int/resource/docs/cop10/10a02.pdf#page=41>
- UNFCCC 2003. Modalities and procedures for afforestation and reforestation project activities under the clean development mechanism in the first commitment period of the Kyoto Protocol. Decision 19/CP.9. Available at: <http://unfccc.int/resource/docs/cop9/06a02.pdf#page=13>
- UNFCCC 2001. Land use, land-use change and forestry. Decision 11/CP.7. Available at:
<http://unfccc.int/resource/docs/cop7/13a01.pdf>
- UNFCCC 1992. United Nations Framework Convention on Climate Change. Available at:
<http://unfccc.int/resource/docs/convkp/conveng.pdf>
- UNFF 2004a. National Report to the Fifth Session of the United Nations Forum on Forests. Sudan-Khartoum, December 2004. 10 p. Available at:
http://www.un.org/esa/forests/pdf/national_reports/unff5/sudan.pdf
- UNFF 2004b. Report of the Ad Hoc Expert Group on Consideration with a view of Recommending the Parameters of a Mandate for Developing a Legal Framework on all Types of Forests, 7-10

- September 2004, New York. United Nations Forum on Forests. Available at: <http://www.un.org/esa/forests/adhoc-param.html>
- UNFF 2004c. An Overview of International Law. Working Draft. Ad Hoc Expert Group on Consideration with a View to Recommending the Parameters of a Mandate for Developing a Legal Framework on All Types of Forests, 7-10 September 2004, New York. United Nations Forum on Forests. Available at: <http://www.un.org/esa/forests/pdf/aheg/param/background-3.pdf>
- UNFF 2003. National Report to the Fourth Session of the United Nations Forum on Forests. Republic of the Sudan Ministry of Agriculture and Forests, Forests National Corporation, Khartoum, November 9, 2003. 11 p. Available at: http://www.un.org/esa/forests/pdf/national_reports/unff4/sudan.pdf
- UN Global Compact 2009a. The United Nations Global Compact. Available at: <http://www.unglobalcompact.org/>
- UN Global Compact 2009b. The Ten Principles. The United Nations Global Compact. Available at: <http://www.unglobalcompact.org/AboutTheGC/TheTenPrinciples/index.html>
- UN-REDD 2010. The UN-REDD Programme. Available at: <http://www.un-redd.org/>
- UNU-IAS 2008. Indigenous Peoples Global Strategy on REDD. Indigenous Peoples and Local Communities' Global Strategy on REDD. Adopted at the Global Indigenous Peoples Consultation on Reducing Emissions from Deforestation and Forest Degradation (REDD) on 14 November 2008. Traditional Knowledge Initiative. The United Nations University, Institute of Advanced Studies. Available at: http://www.unutki.org/default.php?doc_id=133
- USAID 2008. Sudan Transitional Environment Programme. Commercial sawn wood supply and demand in Southern Sudan - recommendations for forest sector planning. Winrock International and International Resources Group (USAID). 45 p.
- USAID 2007. Southern Sudan Environmental Threats and Opportunities Assessment. Biodiversity and Tropical Forest Assessment. International Resources Group. International Resources Group (USAID). 64 p.
- USAID 2003. Integrated Strategic Plan in the Sudan 2003-2005. Environmental Threats and Opportunities Assessment. 146 p.
- Virtanen, P. & Palmujoki, E. 2002. Sustainable Forest Management through Multilateral Environmental Agreements and Market-based Mechanisms. Final report of a Study on International Efforts to Promote the Sustainable Management of Tropical Forests in Developing Countries, Commissioned by the Finnish Ministry for Foreign Affairs, Unit for the Co-operation of Development Policies. Elements for Discussion. Ministry for Foreign Affairs. Department for International Development Cooperation. Hakapaino Oy, Helsinki. 87 p.
- VanderZwaag, D. & Mackinlay, D. 1996. Towards a Global Forests Convention: Getting out of the Woods and Barking Up the Right Tree. In Global Forests & International Environmental Law. Canadian Council on International Law (Ed.) International Environmental Law & Policy Series. Kluwer Law International. 1-39 p.
- WCED 1987. World Commission on Environment and Development. Our Common Future. Report of the World Commission on Environment and Development. Available at: <http://www.un-documents.net/wced-ocf.htm>
- Weiss, G. 2002. The international discourses on sustainable development and sustainable forest management – their relevance for modernising forest laws. In Schmithüsen, F., Iselin, G. & Herbst, P. (Eds.). 2002. Forest Law and Environmental Legislation – Contributions of the IUFRO Research Group 6.13. Proceedings VII. Forstwissenschaftliche Beiträge der Professur Forstpolitik und Forstökonomie Nr. 27; ETH, Zürich, 2002. 217-229 pp.
- Weiss, T.G., Forsythe, D.P. & Coate, R.A. 1994. The United Nations and Changing World Politics. Westview Press. 292 p.
- Welch, S. & Kennedy-Pipe, C. 2004. Multi-level Governance and International Relations. In Bache, I & Flinders, M. (Eds.). Multi-level Governance. Oxford University Press. 127-144 pp.
- Westoby, J. C. 1987. The Purpose of Forests: Follies of Development. Basil Blackwell Ltd, Oxford, UK. 343 p.
- WGC-NR 2010a. Wondo Genet College of Forestry and Natural Resources. Available at: <http://www.wgcf-nr.org/index.html> (23.3.2010)
- WGC-NR 2010b. Wondo Genet College of Forestry and Natural Resources. Department of General

- Forestry. Available at: http://www.wgcf-nr.org/program/gf_students_book.doc
- WGC-NR 2010c. Wondo Genet College of Forestry and Natural Resources. Department of General Forestry. Available at: <http://www.wgcf-nr.org/program/gf.html> (23.3.2010)
- WGC-NR 2010d. Wondo Genet College of Forestry and Natural Resources. Department of Production Forestry. Available at: <http://www.wgcf-nr.org/program/pf.html> (23.3.2010)
- WGC-NR 2010e. Wondo Genet College of Forestry and Natural Resources. Department of Farm Forestry. Available at: <http://www.wgcf-nr.org/program/ff.html> (23.3.2010)
- WGC-NR 2010f. Wondo Genet College of Forestry and Natural Resources. Department of Natural Resource Management. Available at: <http://www.wgcf-nr.org/program/nrm.html> (23.3.2010)
- Winter, G. 2006. The Legal Nature of Environmental Principles in International, EU and Exemplary National Law. In Winter, G. (Ed.). Multilevel Governance of Global Environmental Change: Perspectives from Science, Sociology and the Law. Cambridge University Press. 587-604 pp.
- Wilkie, M.L. 2003. Forest management and the battle of paradigms. Unasylva No. 214/215. Forest management at the XII World Forestry Congress. Volume 54-2003/3-4. An international journal of forestry and forest industries. FAO. Available at: <http://www.fao.org/docrep/006/y5189e/y5189e15.htm>
- Woods, N. 2003. Global Governance and the Role of Institutions. In Held, D. & McGrew, A. (Eds.). Governing Globalization. power, Authority and Global Governance. 25-45 pp.
- WB 2009a. The World Bank Group in Ethiopia. Available at: <http://www.worldbank.org/et>
- WB 2009b. Ethiopia. Data & Statistics. Available at: <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/AFRICAEXT/ETHIOPIAEXTN/0,,menuPK:295955~pagePK:141132~piPK:141109~theSitePK:295930,00.html>
- WB 2009c. The World Bank Group in Sudan. Country Brief. Available at: <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/AFRICAEXT/SUDANEXTN/0,,menuPK:375432~pagePK:141132~piPK:141107~theSitePK:375422,00.html>
- WB 2009d. Sudan. Data & Statistics. Available at: http://ddp-ext.worldbank.org/ext/ddpreports/ViewSharedReport?&CF=&REPORT_ID=9147&REQUEST_TYPE=VIEWADVANCED
- WTO 2009. Trade and Climate Change. The WTO-UNEP Report. Available at: http://www.wto.org/english/res_e/booksp_e/trade_climate_change_e.pdf
- WTO 2004. Trade and Environment at the WTO. Available at: http://www.wto.org/english/res_e/booksp_e/trade_env_e.pdf
- WTO 2001. WTO Doha Ministerial 2001: Ministerial Declaration. 14 November, 2001. Available at: http://www.wto.org/english/thewto_e/minist_e/min01_e/mindecl_e.htm
- WTO 1994a. The Marrakesh Declaration. Available at: http://www.wto.org/english/docs_e/legal_e/marrakesh_decl_e.htm
- WTO 1994b. The Ministerial Decision on Trade and Environment. Available at: http://www.wto.org/english/tratop_E/envir_e/issu5_e.htm
- Yirdaw, E. and Luukkanen, O. 2003. Indigenous woody species diversity in *Eucalyptus globules* Labill. ssp. *globules* plantations in the Ethiopian highlands. In Biodiversity and Conservation 12: 567-582 pp.
- Yirdaw, E. 2001. Diversity of naturally-regenerated native woody species in forest plantations in the Ethiopian highlands. In New Forests 22: 159-177 pp.

ANNEX 1. Results of the NLBI assessment (SFM and good governance)

Implications of the NLBI for SFM.

SFM element	Development priorities
The extent of forest resources	Increased forest area (SFM and protection)
The forest's biological diversity	Networks of protected forest areas
Forest health and vitality	Protection of forest health
Productive functions of forest resources	Increased area of sustainably managed forests Efficient production and processing of forest products
Protective functions of forest resources	Networks of protected forest areas
Socio-economic functions of the forest	Multiple values of forest products and services Increased, new and additional financial resources from all sources
The legal, policy and institutional framework	Good forest governance C&I for SFM Integration of SFM and sustainable development strategies TFRK in SFM International trade in forest products from sustainably managed forests Voluntary instruments for forest products from sustainably managed forests Cross-sectoral policy integration and coordination Education, extension and training for the implementation of SFM (involving local and indigenous communities) Participation of all stakeholders (including local communities) Incentives for SFM and forest protection Monitoring, assessment and reporting about progress towards SFM Forest law enforcement and good governance at all levels Combating illicit international trafficking in forest products and addressing forest-related illegal practices Environmental impact assessments and good environmental practices Incorporation of scientific expertise into SFM Access to and transfer of environmentally sound and innovative technologies and knowhow about SFM Sharing and use of best practices in SFM National and local adaptation of forest-related technologies International, regional and subregional partnerships for SFM (including South-South cooperation) Forestry R&D (including integrated and interdisciplinary research)

Implications of the NLBI for good governance.

Good forest governance element	Development priorities
Capacity-building and empowerment	Partnerships for the implementation of SFM Capacity building Forest products from sustainably managed forests Efficient production and processing of forest products TFRK in SFM Participation of all stakeholders (including local communities) Incentives for SFM and forest protection Access to and transfer of environmentally sound and innovative technologies and knowhow about SFM
Extension and training	Extension and training for the implementation of SFM (involving local and indigenous communities) C&I for SFM Sharing and use of best practices in SFM National and local adaptation of forest-related technologies Efficient production and processing of forest products Protection of forest health from natural events and human activities Technology transfer Incorporation of scientific expertise into SFM
Education and awareness	Education for the implementation of SFM (involving local and indigenous communities) Efficient production and processing of forest products Understanding and awareness of the importance of SFM Forestry R&D (including integrated and interdisciplinary research)
Responsibility and effectiveness	Increased, new and additional financial resources from all sources Forest law enforcement and good governance at all levels Combating illicit international trafficking in forest products and addressing forest-related illegal practices International, regional and subregional partnerships for SFM (including South-South cooperation) Multiple values of forest products and services
Coherence	Cross-sectoral policy integration and coordination
Transparency and accountability	Increased, new and additional financial resources from all sources International trade in forest products from sustainably managed forests Monitoring, assessment and reporting about progress towards SFM Voluntary instruments for forest products from sustainably managed forests

**ANNEX 2. Results of the IPF/IFF Proposals for Action assessment
(SFM and good governance)**

Implications of the IPF/IFF Proposals for Action for SFM.

SFM element	Development priorities
The extent of forest resources	Action towards reforestation, afforestation and forest conservation Addressing the underlying causes of deforestation and forest degradation
The forest's biological diversity	Networks of protected areas, buffer zones and ecological corridors to conserve biodiversity
Forest health and vitality	Establishment of protected areas to safeguard forest and related ecosystems
Productive functions of forest resources	Long-term security of forest goods and services through the development of NFPs for SFM
Protective functions of forest resources	Establishment of protected areas to safeguard forest and related ecosystems including water supplies and historical and traditional uses Protection, conservation and representativeness of all types of forests consistent with NFPs that recognize the linkage between forest conservation and sustainable development Addressing the underlying causes of deforestation and forest degradation Full life-cycle analysis of the environmental impacts of forest products and their substitutes
Socio-economic functions of the forest	Long-term security of forest goods and services through the development of NFPs for SFM
The legal, policy and institutional framework	National-level C&I for SFM taking into account 1) participatory and cross-sectoral approach, 2) specific country conditions and integration with NFP and 3) internationally and regionally agreed initiatives Internationally, regionally, subregionally and nationally agreed C&I as a framework for promoting best forest practices and in facilitating SFM Integration of national-level C&I for SFM into national forest assessments Identification, preservation and maintenance of TFRK including innovations and practices Education, training, extension systems and participatory research involving indigenous and local communities to develop resource management approaches that will reduce the pressure on forests Preparation of technical guidelines on TFRK application with the assistance of international organizations Establishment of linkages between traditional and emerging national SFM systems (e.g. between TFRK and new technologies) Provision of new and additional financial resources to developing countries to enable them to sustainably manage, conserve and develop their forest resources

Implications of the IPF/IFF Proposals for Action for good governance.

Good forest governance element	Development priorities
Capacity-building and empowerment	<p>Innovative financial initiatives to support the implementation of NFPs</p> <p>Identification, preservation and maintenance of TFRK including innovations and practices</p> <p>Establishment of stronger linkages between traditional and emerging national SFM systems (e.g. between TFRK and new technologies)</p> <p>Transfer of technologies to developing countries to promote SFM including human and institutional capacity-building as an integral part of the process of investment and sustainable development</p> <p>Establishment of protected areas to safeguard forest and related ecosystems including water supplies and historical and traditional uses</p>
Extension and training	<p>Education, training, extension systems and participatory research involving indigenous and local communities to develop resource management approaches that will reduce the pressure on forests</p> <p>Preparation of technical guidelines on TFRK application with the assistance of international organizations</p>
Education and awareness	<p>Identification, definition and prioritization of global and eco-regional interdisciplinary research problems taking into account national priorities and closely linked to practical and operational forest management issues</p> <p>Provision of timely, reliable and accurate information as a foundation for public understanding and decision-making</p>
Responsibility and effectiveness	<p>Trade in wood and non-wood products and services from sustainably managed forests</p> <p>Provision of new and additional financial resources to developing countries to enable them to sustainably manage, conserve and develop their forest resources</p> <p>Integration of national-level C&I for SFM into national forest assessments</p> <p>Economic instruments, tax policies and land tenure as incentives for SFM</p>
Coherence	<p>Coordination, collaboration and complementarity of activities among bilateral and multilateral donors and among international instruments related to forests</p>
Transparency and accountability	<p>Transparency in decision-making of international financial institutions affecting SFM and ensuring that their policies support SFM</p> <p>Provision and dissemination of information</p> <p>Mutually supportive relationship between environment and trade in forest goods and services</p> <p>Application of the following concepts in certification schemes: 1) open access and non-discrimination in respect of all types of forests, forest owners, managers and operators, 2) credibility, 3) non-deceptiveness, 4) cost-effectiveness, 5) participation that seeks to involve all interested parties including local communities, 6) SFM and 7) transparency</p>

ANNEX 3. Results of the ITTA 2006 assessment (SFM and good governance)

Implications of the ITTA 2006 for SFM.

SFM element	Development priorities
The extent of forest resources	Support and develop tropical timber reforestation as well as rehabilitation and restoration of degraded forest land with due regard for the interests of local communities dependent on forest resources
The forest's biological diversity	Improved understanding of the contribution of non-timber forest products and environmental services to the sustainable management of tropical forests R&D to increase the capacity to conserve and enhance other forest values in timber producing tropical forests
Forest health and vitality	Improved understanding of the contribution of non-timber forest products and environmental services to the sustainable management of tropical forests R&D to increase the capacity to conserve and enhance other forest values in timber producing tropical forests
Productive functions of forest resources	Sustainable management of tropical timber producing forests R&D to improve forest management and efficiency of wood utilization and the competitiveness of wood products
Protective functions of forest resources	R&D to increase the capacity to conserve and enhance other forest values in timber producing tropical forests Improved understanding of the contribution of non-timber forest products and environmental services to the sustainable management of tropical forests
Socio-economic functions of the forest	Expansion and diversification of international trade in tropical timber from sustainably managed and legally harvested forests
The legal, policy and institutional framework	Recognition of the role of forest-dependent indigenous and local communities in achieving SFM and development of strategies to enhance the capacity of these communities to sustainably manage tropical timber producing forests Development of national policies aimed at sustainable utilization and conservation of timber producing forests and maintaining ecological balance in the context of the tropical timber trade The capacity of members to improve forest law enforcement and governance and address illegal logging and related trade in tropical timber Mechanisms for the provision of new and additional financial resources with a view to promoting the adequacy and predictability of funding and expertise Information sharing for a better understanding of voluntary mechanisms such as certification to promote sustainable management of tropical forests

Implications of the ITTA 2006 for good governance.

Good forest governance element	Development priorities
Capacity-building and empowerment	<p>The capacity of members to improve forest law enforcement and governance and address illegal logging and related trade in tropical timber</p> <p>Access to and transfer of technologies and technical cooperation</p> <p>Support and develop tropical timber reforestation as well as rehabilitation and restoration of degraded forest land with due regard for the interests of local communities dependent on forest resources</p> <p>Further processing of tropical timber from sustainable sources in producer member countries to promote their industrialization and to increase their employment opportunities and export earnings</p>
Extension and training	Sustainable management of tropical timber producing forests
Education and awareness	<p>R&D to improve forest management and efficiency of wood utilization and the competitiveness of wood products as well as to increase the capacity to conserve and enhance other forest values in timber producing tropical forests</p> <p>Information sharing for a better understanding of voluntary mechanisms such as certification to promote sustainable management of tropical forests</p> <p>Improved understanding of the contribution of non-timber forest products and environmental services to the sustainable management of tropical forests</p>
Responsibility and effectiveness	<p>Recognition of the role of forest-dependent indigenous and local communities in achieving SFM and development of strategies to enhance the capacity of these communities to sustainably manage tropical timber producing forests</p> <p>Mechanisms for the provision of new and additional financial resources with a view to promoting the adequacy and predictability of funding and expertise</p>
Coherence	Development of national policies aimed at sustainable utilization and conservation of timber producing forests and maintaining ecological balance in the context of the tropical timber trade
Transparency and accountability	<p>Expansion and diversification of international trade in tropical timber from sustainably managed and legally harvested forests</p> <p>Improved market intelligence and information sharing on the international timber market</p>

ANNEX 4. Results of the CBD assessment (SFM and good governance)

Implications of the CBD for SFM.

SFM element	Development priorities
The extent of forest resources	Environmentally sound and sustainable development in areas adjacent to protected areas with a view to furthering protection of these areas
The forest's biological diversity	Establishment of a system of protected areas or areas where special measures need to be taken to conserve biological diversity including development of guidelines for their selection, establishment and management Rehabilitation and restoration of degraded ecosystems and promotion of the recovery of threatened species e.g. through the development and implementation of plans or other management strategies
Forest health and vitality	Support of local populations to develop and implement remedial action in degraded areas where biological diversity has been reduced Prevention of the introduction of as well as control or eradication of those alien species which threaten ecosystems, habitats or species
Productive functions of forest resources	Sustainable use of components of biological diversity Adaptation of measures relating to the use of biological resources to avoid or minimize adverse impacts on biological diversity Cooperation between governmental authorities and private sector in developing methods for sustainable use of biological resources
Protective functions of forest resources	Protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings
Socio-economic functions of the forest	Protection and encouragement of customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements
The legal, policy and institutional framework	Integration of the consideration of conservation and sustainable use of biological resources into national decision-making Regulation or management of biological resources important for the conservation of biological diversity whether within or outside protected areas with a view to ensuring their conservation and sustainable use Development or maintenance of necessary legislation and/or other regulatory provisions for the protection of threatened species and populations Provision of the conditions needed for compatibility between present uses and the conservation of biological diversity and the sustainable use of its components Respect, preservation and maintenance of knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biological diversity Wider application of knowledge, innovations and practices of indigenous and local communities (with the approval and involvement of the holders) and promotion of the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices

Implications of the CBD for good governance.

Good forest governance element	Development priorities
Capacity-building and empowerment	<p>Protection and encouragement of customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements</p> <p>Support of local populations to develop and implement remedial action in degraded areas where biological diversity has been reduced</p> <p>Establishment of a system of protected areas or areas where special measures need to be taken to conserve biological diversity including the development of guidelines for their selection, establishment and management</p> <p>Respect, preservation and maintenance of knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biological diversity</p> <p>Wider application of knowledge, innovations and practices of indigenous and local communities (with the approval and involvement of the holders) and promotion of the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices</p>
Extension and training	<p>Sustainable use of components of biological diversity</p> <p>Adaptation of measures relating to the use of biological resources to avoid or minimize adverse impacts on biological diversity</p> <p>Environmentally sound and sustainable development in areas adjacent to protected areas with a view to furthering protection of these areas</p> <p>Rehabilitation and restoration of degraded ecosystems and promotion of the recovery of threatened species e.g. through the development and implementation of plans or other management strategies</p>
Education and awareness	<p>Education and public awareness programmes about the conservation and sustainable use of biological diversity</p> <p>Prevention of the introduction of as well as control or eradication of those alien species which threaten ecosystems, habitats or species</p> <p>International and national scientific and technical cooperation in the field of conservation and sustainable use of biological diversity</p>
Responsibility and effectiveness	<p>Integration of the consideration of conservation and sustainable use of biological resources into national decision-making</p> <p>Regulation or management of biological resources important for the conservation of biological diversity whether within or outside protected areas with a view to ensuring their conservation and sustainable use</p> <p>Protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings</p>
Coherence	Cooperation between governmental authorities and private sector in developing methods for sustainable use of biological resources
Transparency and accountability	<p>Provision of the conditions needed for compatibility between present uses and the conservation of biological diversity and the sustainable use of its components</p> <p>Development or maintenance of necessary legislation and/or other regulatory provisions for the protection of threatened species and populations</p>

**ANNEX 5. Results of the UNFCCC and the Kyoto Protocol assessment
(SFM and good governance)**

Implications of the UNFCCC and the Kyoto Protocol for SFM.

SFM element	Development priorities
The extent of forest resources	Afforestation and reforestation
The forest's biological diversity	Consideration of the specific needs and special circumstances of areas that are particularly vulnerable to the adverse effects of climate change
Forest health and vitality	
Productive functions of forest resources	Sustainable forest management practices Development and application of technology transfer, practices and processes that control, reduce or prevent human-induced emissions of greenhouse gases in all relevant sectors including forestry and agriculture Enhancement of energy efficiency (e.g. new and renewable forms of energy) and promotion of sustainable agriculture
Protective functions of forest resources	Development of appropriate and integrated plans for water resources and agricultural management and for the protection and rehabilitation of areas affected by drought and desertification Precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects (lack of full scientific certainty should not be used as a reason for postponing measures in case of serious threats or irreversible damage)
Socio-economic functions of the forest	Consideration of the specific needs and special circumstances of areas that are particularly vulnerable to the adverse effects of climate change
The legal, policy and institutional framework	Sustainable management and cooperation in the conservation and enhancement of sinks and reservoirs of all greenhouse gases including biomass, forests and other terrestrial ecosystems Provision of new and additional financial resources to meet the agreed full costs (including transfer of technology) Transfer of or access to environmentally sound technologies and know-how to especially meet the specific needs and concerns of 1) arid and semi-arid areas, 2) forested areas and areas liable to forest decay, 3) areas prone to natural disasters, 4) areas liable to drought and desertification, 5) areas with fragile ecosystems and 6) economies that are highly dependent on income generated from the production, processing and export of fossil fuels and associated energy-intensive products Education, training and public awareness related to climate change and promotion of the widest participation in this process including NGOs

Implications of the UNFCCC and the Kyoto Protocol for good governance.

Good forest governance element	Development priorities
Capacity-building and empowerment	Provision of new and additional financial resources to meet the agreed full costs (including transfer of technology) Specific needs and special circumstances of developing countries Transfer of or access to environmentally sound technologies and know-how to especially meet the specific needs and concerns of 1) arid and semi-arid areas, 2) forested areas and areas liable to forest decay, 3) areas prone to natural disasters, 4) areas liable to drought and desertification, 5) areas with fragile ecosystems and 6) economies that are highly dependent on income generated from the production, processing and export of fossil fuels and associated energy-intensive products
Extension and training	Sustainable forest management practices, afforestation and reforestation Development and application of technology transfer, practices and processes that control, reduce or prevent human-induced emissions of greenhouse gases in all relevant sectors including forestry and agriculture Enhancement of energy efficiency (e.g. new and renewable forms of energy) and promotion of sustainable agriculture
Education and awareness	Education, training and public awareness related to climate change and promotion of the widest participation in this process including NGOs
Responsibility and effectiveness	Development of appropriate and integrated plans for water resources and agricultural management and for the protection and rehabilitation of areas affected by drought and desertification Common but differentiated responsibilities and respective capabilities
Coherence	Promotion of sustainable development Consideration of the specific needs and special circumstances of areas that are particularly vulnerable to the adverse effects of climate change
Transparency and accountability	Precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects (lack of full scientific certainty should not be used as a reason for postponing measures in case of serious threats or irreversible damage) Full and open exchange of scientific, technological, technical, socio-economic and legal information about the climate system and change as well as the economic and social consequences of response strategies

ANNEX 6. Results of the UNCCD assessment (SFM and good governance)

Implications of the UNCCD for SFM.

SFM element	Development priorities
The extent of forest resources	<p>Obligation of affected countries to address the underlying causes of desertification</p> <p>Provision of appropriate training and technology in the use of alternative energy sources (particularly renewable energy resources and aimed at reducing dependence on wood for fuel)</p> <p>Adaptation of relevant environmentally sound technology and traditional methods of agriculture and pastoralism to modern socio-economic conditions</p>
The forest's biological diversity	
Forest health and vitality	
Productive functions of forest resources	Obligation of developed countries to promote, finance and/or facilitate the financing of the transfer, adaptation and access to appropriate environmental technologies and know-how
Protective functions of forest resources	<p>Obligation of affected countries to address the underlying causes of desertification</p> <p>Provision of appropriate training and technology in the use of alternative energy sources (particularly renewable energy resources and aimed at reducing dependence on wood for fuel)</p>
Socio-economic functions of the forest	Obligation of affected countries to address the underlying causes of desertification and pay special attention to the socio-economic factors contributing to the desertification processes
The legal, policy and institutional framework	<p>Obligation of affected countries to provide an enabling environment through appropriate strengthening of relevant existing legislation and enactment of new laws and establishment of long-term policies and action programmes</p> <p>Obligation of developed countries to assist in strengthening of capacities to enable improvement of institutional frameworks, scientific and technical capabilities, information collection and analysis and R&D</p> <p>Capacity-building including institution building, training and development of relevant local and national capacities for efforts to combat desertification and mitigate the effects of drought including full participation of all levels of local people</p> <p>Use and dissemination of the knowledge, know-how and practices of local people in technical cooperation programmes</p> <p>NAPs to 1) define the roles and responsibilities of central government and local authorities within the framework of a land use planning policy, 2) encourage a policy of active decentralization, devolving responsibility for management and decision-making to local authorities and encouraging initiatives and the assumption of responsibility by local communities and the establishment of local structures, 3) adjust the institutional and regulatory framework of natural resource management to provide security of land tenure for local populations and 4) promote research and the collection, processing and exchange of information on the scientific, technical and socio-economic aspects of desertification</p>

Implications of the UNCCD for good governance.

Good forest governance element	Development priorities
Capacity-building and empowerment	<p>Obligation of developed countries to 1) provide and/or facilitate access to financial and/or other resources, 2) continuously allocate significant resources and/or increased resources and 3) assist in strengthening of capacities to enable improvement of institutional frameworks, scientific and technical capabilities, information collection and analysis and R&D</p> <p>Capacity-building including institution building, training and development of relevant local and national capacities for efforts to combat desertification and mitigate the effects of drought including full participation of all levels of local people</p> <p>Obligation of African countries to implement participation of local populations and communities</p>
Extension and training	<p>Obligation of developed countries to promote, finance and/or facilitate the financing of the transfer, adaptation and access to appropriate environmental technologies and know-how</p> <p>Establishment and/or strengthening of support and extension services to disseminate relevant technology methods and techniques</p> <p>Training field agents and members of rural organizations in participatory approaches for the conservation and sustainable use of natural resources</p> <p>Adaptation of relevant environmentally sound technology and traditional methods of agriculture and pastoralism to modern socio-economic conditions</p> <p>Provision of appropriate training and technology in the use of alternative energy sources (particularly renewable energy resources and aimed at reducing dependence on wood for fuel)</p>
Education and awareness	<p>Education and public awareness for efforts to combat desertification and mitigate the effects of drought including full participation of all levels of local people</p> <p>Obligation of affected countries to promote awareness and facilitate the participation of local populations in efforts to combat desertification and mitigate the effects of drought (with the support of NGOs)</p>
Responsibility and effectiveness	Obligation of affected countries to provide an enabling environment through appropriate strengthening of relevant existing legislation and enactment of new laws and establishment of long-term policies and action programmes
Coherence	Obligation of African countries to rationalize and strengthen existing institutions concerned with desertification and drought and involve other existing institutions to make them more effective and to ensure more efficient use of resources
Transparency and accountability	<p>Obligation of African countries to 1) implement financial allocations from their national budgets consistent with national conditions and capabilities and reflecting this new priority, 2) expand existing national capabilities and facilities to mobilize domestic financial resources and 3) identify and mobilize new and additional national financial resources</p> <p>NAPs to define the roles and responsibilities of central government and local authorities within the framework of a land use planning policy</p>

ANNEX 7. Results of the EU forest policy assessment (SFM and good governance)

Implications of the EU Forest policies for SFM.

SFM element	Development priorities
The extent of forest resources	Maintenance, conservation, restoration and enhancement of biological diversity of forests
The forest's biological diversity	Forests as carbon sinks and sources of environmentally friendly raw material
Forest health and vitality	
Productive functions of forest resources	Wood, timber, non-wood and other forest products from legal sources and sustainably managed forests Development of safeguard and risk management measures (e.g. improved due diligence for clearly defined, legal and sustainable long-term timber supply) within finance and investment institutions and for related activities including conformity with legislation, environmental and social impact assessments and codes of practice for forest sector projects
Protective functions of forest resources	Multifunctional role of forests including their environmental, ecological and cultural functions SFM for climate change adaptation and mitigation: 1) carbon sinks and reservoirs, 2) reduced emissions from deforestation and forest degradation and 3) use of biomass and wood-based products
Socio-economic functions of the forest	Specific approaches and actions for the different types of forest recognising the wide range of natural, social, economic and cultural conditions of the forests
The legal, policy and institutional framework	Good governance for SFM, forest protection and forest law enforcement Development of NFPs as frameworks for the implementation of international forest-related commitments including cross-sectoral cooperation, coordination and coherence Application of the principles of sustainability Active participation in all international processes related to the forest sector Taking into account both the contribution of forests and forest products to other policies and the impacts of other policies on forests and forest products to guarantee required consistency of a holistic approach towards SFM (e.g. development cooperation policies). Participatory and transparent approach with all stakeholders Credible, transparent, cost-efficient, open access and non-discriminatory voluntary and market-based forest certification schemes consistent with internationally agreed principles of SFM Implementation of innovative, integrated and effective approaches including 1) capacity building for good governance and forest law enforcement, 2) public-private partnerships, 3) public procurement policies and practices, 4) information sharing and addressing underlying causes, 5) wood tracking systems and best practices within supply chain management and 6) chain of custody Implementation of the FLEGT approach including 1) forest sector governance reforms and 2) voluntary partnerships with wood-producing countries to address illegal logging and related international trade including improvement of forest governance and overall transparency in the forest sector Development of appropriate legal, governance and technical systems to verify the legality of wood production in accordance with national laws (wood producing partner countries) including 1) consistent, clear and enforceable forest laws for SFM, 2) technical and administrative logging monitoring systems and 3) voluntary licensing of operations and exports Implementation of SFM through secure property and land tenure rights Development co-operation with a focus on 1) equitable and just solutions to the illegal logging problem which do not have an adverse impact on poor people, 2)

	helping partner countries to build systems to verify that timber has been harvested legally (including transparent forest sector information), and 3) capacity building for partner country governments and civil society (including the implementation of governance and forest law and policy reforms) and 4) promoting policy reform Private sector initiatives for good practice in the forest sector (in line with the principles of corporate social responsibility) including high standards in voluntary codes of conduct to source legal timber, transparent activities and independent monitoring
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Implications of the EU forest policies for good governance.

Good forest governance element	Development priorities
Capacity-building and empowerment	Implementation of SFM through secure property and land tenure rights
Extension and training	Promotion of the use of wood, non-wood and other forest products from sustainably managed forests
Education and awareness	Improvement of research potential and encouragement of innovation to promote SFM Multifunctional role of forests including their social, economic, environmental, ecological and cultural functions Maintenance, conservation, restoration and enhancement of biological diversity of forests
Responsibility and effectiveness	Good governance for SFM, forest protection and forest law enforcement Development of NFPs as frameworks for the implementation of international forest-related commitments including cross-sectoral cooperation, coordination and coherence Application of the principles of sustainability Specific approaches and actions for the different types of forest recognising the wide range of natural, social, economic and cultural conditions of the forests Implementation of innovative, integrated and effective approaches including 1) capacity building for good governance and forest law enforcement, 2) public-private partnerships, 3) public procurement policies and practices, 4) information sharing and addressing underlying causes, 5) wood tracking systems and best practices within supply chain management and 6) chain of custody Development co-operation with a focus on 1) equitable and just solutions to the illegal logging problem which do not have an adverse impact on poor people, 2) helping partner countries to build systems to verify that timber has been harvested legally (including transparent forest sector information), and 3) capacity building for partner country governments and civil society (including the implementation of governance and forest law and policy reforms) and 4) promoting policy reform Private sector initiatives for good practice in the forest sector in line with the principles of corporate social responsibility including high standards in voluntary codes of conduct, sourcing of legal timber, transparent activities and independent monitoring
Coherence	Implementation of international commitments, principles and recommendations through national or sub-national forest programmes or appropriate instruments developed by the Member States Active participation in all international processes related to the forest sector Better integration of forests and forest products into sectoral policies Taking into account both the contribution of forests and forest products to other policies and the impacts of other policies on forests and forest products to guarantee required consistency of a holistic approach towards SFM (e.g. development cooperation policies) SFM for climate change adaptation and mitigation: 1) carbon sinks and reservoirs, 2) reduced emissions from deforestation and forest degradation and 3) use of biomass and wood-based products
Transparency and accountability	Good governance for SFM, forest protection and forest law enforcement Wood, timber, non-wood and other forest products from legal sources and sustainably managed forests Credible, transparent, cost-efficient, open access and non-discriminatory voluntary and market-based forest certification schemes consistent with internationally agreed principles of SFM Voluntary partnerships with wood-producing countries to address illegal logging and related international trade including improvement and reform of forest

	<p>governance and overall transparency in the forest sector (FLEGT)</p> <p>Development of appropriate legal, governance and technical systems to verify the legality of wood production in accordance with national laws (wood producing partner countries) including 1) consistent, clear and enforceable forest laws for SFM, 2) technical and administrative logging monitoring systems and 3) voluntary licensing of operations and exports</p> <p>Improved due diligence for clearly defined, legal and sustainable long-term timber supply</p> <p>Safeguard and risk management practices for financial institutions and investments including conformity with legislation, environmental and social impact assessments and codes of practice for forest sector projects</p>
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**ANNEX 8. Results of the EU framework assessment
(good forest governance, SFM, and good governance)**

Implications of the EU framework for good forest governance.

Good forest governance element	Development priorities
Multiple actors, levels and networks	Global governance for sustainable development as well as for effective development assistance and co-operation Incorporation of sustainable development into regional and bilateral agreements and promotion of the contribution of international trade to sustainable development including support of and capacity building in developing countries
NFPs, policies and laws (SFM)	Good governance and enforcement of clear and effective laws that support sustainable development Implementation of SFM and forest protection through NFPs Long and short term approaches and action at all levels to promote economically, socially and environmentally sustainable development including multiple instruments such as regulations, incentives and market-based instruments Application of the sustainable development policy guiding principles: 1) promotion and protection of fundamental rights, 2) solidarity within and between generations, 3) open and democratic society, 4) involvement of citizens, businesses and social partners, 5) policy coherence and governance, 6) policy integration, 7) use best available knowledge, 8) the precautionary principle and 9) the polluter-pays principle Integration of climate change mitigation and adaptation measures into development policies
Standards and principles (SFM)	Sustainable management, use and conservation of natural resources including SFM SFM practices and community participation in forest management and conservation Combating illegal logging and trade in illegally harvested wood through FLEGT including 1) linking governance reforms in producer countries with the legal framework of the internal EU market and 2) binding voluntary partnership agreements with wood-producing countries and regions that promote legal timber exports to Europe and governance reforms in wood producing countries with a focus on increased equity and transparency Application of the principle of 1) sustainable development, 2) prudent and rational utilisation of natural resources, 3) democracy, 4) respect for human rights, 5) fundamental freedoms, 6) rule of law, 7) high level of protection and improvement of the quality of the environment, 8) protection of human health, 9) liberty and 10) promotion of measures at international level to deal with regional or worldwide environmental problems Application of the precautionary principle, the principle that preventive action should be taken, the principle that environmental damage should as a priority be rectified at source and the polluter-pays principle Principles of good governance for global responsibilities: openness, participation, accountability, effectiveness and coherence Application of criteria and resource-specific criteria to measure progress towards more sustainable management practices jointly with impact assessments
Decision-making and institutions	Integrated approach to policy making based on improved legislation, impact assessments and the application of the main principles of sustainable development Comprehensive, integrated and cross-sectoral approaches to sustainable natural resources management and climate change Integration of the environmental impacts of using natural resources into policy-making in line with sustainable development Design of institutions, policies and regulation in line with the principles of good governance Development of improved mechanisms and general rules and principles of good governance Taking deforestation, local indigenous knowledge, soil degradation, water demand in agriculture and climate change adaptation into account in future policies Taking economic, social and environmental consequences of all policies into account in relevant decision-making Informed decision-making and the integration of environmental concerns into other policies

	<p>Secure, well-defined and enforceable land rights and appropriate access to land including traditional and customary land tenure systems</p> <p>Decentralization and local government, decision-making and democracy as well as involvement of local communities and building of local capacity including community-based institutions</p> <p>Customary tenure systems and local practices as a basis of development work</p> <p>Linking customary and statutory rights and taking into account the difference between statutory law and local practice</p> <p>Land rights of women in local, customary and formal systems</p> <p>Application of life-cycle thinking across various policy fields through existing and emerging policies</p> <p>Application of strategic environmental assessments (SEA) and environmental impact assessments (EIA)</p>
Partnerships and participation (including TFRK)	<p>The Community and the Member States shall cooperate with third countries and with the competent international organisations</p> <p>Capacity building and technical assistance for developing countries to promote exports and development of policies to address sustainability challenges</p> <p>Coordination between government levels and involvement of all stakeholders in sustainable development activities including sharing of good and best practices as well as monitoring of progress</p> <p>Global partnership for sustainable development and promotion of good governance at all levels (e.g. global governance and international environmental governance) and strengthening of public institutions and civil society in developing countries</p> <p>Safeguarding indigenous people's rights in development cooperation through ensuring their full participation as well as free and prior informed consent of the concerned communities</p> <p>Partnerships with non-State actors and local decentralised actors including 1) provision of information, 2) consultation mechanisms and implementation of cooperation project and programmes, 3) cooperation, 4) dialogue, 5) representation, 6) provision of financial resources to support local development processes, capacity building and strategic alliances</p> <p>The principles of Africa-EU partnership: 1) joint responsibility, 2) co-management, 3) the rule of law, 4) democratic principles, 5) respect for human rights, 6) right to development, 7) respect for international law and agreements and 8) a long-term approach</p> <p>Partnerships including institutional development, knowledge-sharing, the exchange of best practices, awareness raising, capacity building and technical assistance</p> <p>Measures to prevent and combat trade in illegally harvested wood</p> <p>Effective action on climate change including reversing emissions from deforestation and promotion of sustainable and efficient forest policy to enhance the contribution of forests to the overall reduction of emissions</p> <p>Capacity-building and technology-transfer for climate change adaptation</p> <p>Broader participation in effective adaptation activities</p>

Implications of the EU framework for SFM.

SFM element	
The extent of forest resources	Sustainable management, use and conservation of natural resources including SFM Monitoring deforestation and reduced emissions from deforestation
The forest's biological diversity	
Forest health and vitality	
Productive functions of forest resources	Application of the principle of prudent and rational utilisation of natural resources Sustainably produced wood through certification for SFM and forest products labelling
Protective functions of forest resources	Application of the principle of high level of protection and improvement of the quality of the environment Application of criteria and resource-specific criteria to measure progress towards more sustainable management practices jointly with impact assessments Effective action on climate change including reversing emissions from deforestation and promotion of sustainable and efficient forest policy to enhance the contribution of forests to the overall reduction of emissions
Socio-economic functions of the forest	Decentralization and local government, decision-making and democracy as well as involvement of local communities and building of local capacity including community-based institutions
The legal, policy and institutional framework	Implementation of SFM and forest protection through NFPs SFM practices and community participation in forest management and conservation Combating illegal logging and trade in illegally harvested wood through FLEGT including 1) linking governance reforms in producer countries with the legal framework of the internal EU market and 2) establishing binding voluntary partnership agreements with wood-producing countries and regions that promote legal timber exports to Europe and governance reforms in wood producing countries with a focus on increased equity and transparency Integration of environmental protection requirements into the definition and implementation of Community policies and activities in particular with a view to promote sustainable development Application of the principle of 1) sustainable development, 2) liberty, 3) democracy, 4) respect for human rights, 5) fundamental freedoms, 6) rule of law, 7) protection of human health and 8) promotion of measures at international level to deal with regional or worldwide environmental problems Comprehensive, integrated and cross-sectoral approaches to sustainable natural resources management and climate change International governance for sustainable development and coherence between and within EU's external and internal policies including the integration of sustainability goals to all policies Good governance and enforcement of clear and effective laws that support sustainable development Integrated approach to policy making based improved legislation, impact assessments and the application of the main principles of sustainable development Long and short term approaches and action at all levels to promote economically, socially and environmentally sustainable development including multiple instruments such as regulations, incentives and market-based instruments Application of the sustainable development policy guiding principles: 1) promotion and protection of fundamental rights, 2) solidarity within and between generations, 3) open and democratic society, 4) involvement of citizens, businesses and social partners, 5) policy coherence and governance, 6) policy integration, 7) use of best available knowledge, 8) the precautionary principle and 9) the polluter-pays principle

	<p>Coordination between government levels and involvement of all stakeholders in sustainable development activities including sharing of good and best practices as well as monitoring of progress</p> <p>Safeguarding indigenous people's rights in development cooperation through ensuring their full participation as well as free and prior informed consent of the concerned communities</p> <p>Partnerships with non-State actors and local decentralised actors including provision of information, consultation mechanisms and implementation of cooperation project and programmes, cooperation, dialogue, representation, provision of financial resources to support local development processes, capacity building and strategic alliances</p> <p>Principles of good governance for global responsibilities: openness, participation, accountability, effectiveness and coherence</p> <p>Development of improved mechanisms and general rules and principles of good governance</p> <p>Design of institutions, policies and regulation in line with the principles of good governance</p> <p>The principles of Africa-EU partnership: 1) joint responsibility, 2) co-management, 3) the rule of law, 4) democratic principles, 5) respect for human rights, 6) right to development, 7) respect for international law and agreements and 8) a long-term approach</p> <p>Partnership including institutional development, knowledge-sharing, exchange of best practices, awareness raising, capacity building and technical assistance</p> <p>Integration of the environmental impacts of using natural resources into policy-making in line with sustainable development</p> <p>Secure, well-defined and enforceable land rights and appropriate access to land including traditional and customary land tenure systems</p> <p>Customary tenure systems and local practices as a basis of development work</p> <p>Gradual formalisation of local land rights through decentralized land administration and more accountable processes</p> <p>Linking customary and statutory rights and taking into account the difference between statutory law and local practice</p> <p>Land rights of women in local, customary and formal systems</p>
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Implications of the EU framework for good governance.

Good forest governance element	Development priorities
Capacity-building and empowerment	<p>The Community and the Member States shall cooperate with third countries and with the competent international organisations</p> <p>International governance for sustainable development</p> <p>Capacity building and technical assistance for developing countries to promote exports and development of policies to address sustainability challenges</p> <p>Partnerships with non-State actors and local decentralised actors including 1) provision of information, 2) consultation mechanisms and implementation of cooperation project and programmes, 3) cooperation, 4) dialogue, 5) representation, 6) provision of financial resources to support local development processes, capacity building and strategic alliances</p> <p>The principles of Africa-EU partnership: 1) joint responsibility, 2) co-management, 3) the rule of law, 4) democratic principles, 5) respect for human rights, 6) right to development, 7) respect for international law and agreements and 8) a long-term approach</p> <p>Partnerships for institutional development, knowledge-sharing, exchange of best practices, awareness raising, capacity building and technical assistance</p> <p>Broader participation in effective adaptation activities</p> <p>Capacity-building and technology-transfer for climate change adaptation</p> <p>Secure, well-defined and enforceable land rights and appropriate access to land including traditional and customary land tenure systems</p> <p>Decentralization and local government, decision-making and democracy as well as involvement of local communities and building of local capacity including community-based institutions</p> <p>Customary tenure systems and local practices as a basis of development work</p> <p>Linking customary and statutory rights and taking into account the difference between statutory law and local practice</p> <p>Land rights of women in local, customary and formal systems</p> <p>Capacity building for more effective, accountable, decentralized and participatory institutions and for risk management</p>
Extension and training	Comprehensive, integrated and cross-sectoral approaches to sustainable natural resources management and climate change
Education and awareness	<p>Management, use and conservation of natural resources based on SFM</p> <p>Monitoring deforestation and reduced emissions from deforestation</p> <p>Sustainable natural resources and land management</p> <p>Application of criteria and resource-specific criteria to measure progress towards more sustainable management practices jointly with impact assessments</p> <p>Awareness raising of significant negative environmental impacts of resource use among stakeholders and citizens</p> <p>International research and technology cooperation</p> <p>Assessment of local impacts of climate change</p>
Responsibility and effectiveness	<p>Combating illegal logging and trade in illegally harvested wood through FLEGT including 1) linking governance reforms in producer countries with the legal framework of the internal EU market and 2) establishing binding voluntary partnership agreements with wood-producing countries and regions that promote legal timber exports to Europe and governance reforms in wood producing countries with a focus on increased equity and transparency</p> <p>Application of the principle of 1) sustainable development, 2) rule of law, 3) prudent and rational utilisation of natural resources, 4) high level of protection and improvement of the quality of the environment, 5) protection of human health and 6) promotion of measures at international level to deal with regional or worldwide environmental problems</p> <p>Application of the precautionary principle, the principle that preventive action should be</p>

	<p>taken, the principle that environmental damage should as a priority be rectified at source and the polluter-pays principle</p> <p>Application of the sustainable development policy guiding principles: 1) promotion and protection of fundamental rights, 2) solidarity within and between generations, 3) open and democratic society, 4) involvement of citizens, businesses and social partners, 5) policy coherence and governance, 6) policy integration, 7) use of best available knowledge, 8) the precautionary principle and 9) the polluter-pays principle</p> <p>Coordination between government levels and involvement of all stakeholders in sustainable development activities including sharing of good and best practices as well as monitoring of progress</p> <p>Global governance for sustainable development as well as for effective development assistance and co-operation</p> <p>Principles of good governance for global responsibilities: openness, participation, accountability, effectiveness and coherence</p> <p>Informed decision-making and the integration of environmental concerns into other policies</p> <p>Application of life-cycle thinking across various policy fields through existing and emerging policies</p> <p>Application of strategic environmental assessments (SEA) and environmental impact assessments (EIA)</p> <p>Effective action on climate change including reversing emissions from deforestation and promotion of sustainable and efficient forest policy to enhance the contribution of forests to the overall reduction of emissions</p> <p>SFM practices and community participation in forest management and conservation</p>
Coherence	<p>Coherence between and within EU's external and internal policies including the integration of sustainability goals to all policies</p> <p>Integrated approach to policy making based improved legislation, impact assessments and the application of the main principles of sustainable development</p> <p>Improvement of the coherence of EU policies and governance at all levels including the assessment of economic, social and environmental impacts of major EU policy proposals as well as the adaptation of policies to the objectives of sustainable development</p> <p>Integration of climate change mitigation and adaptation measures into development policies</p> <p>Integration of the environmental impacts of using natural resources into policy-making in line with sustainable development</p> <p>Effective coordination between all policy sectors and stakeholders involved in forestry including the private sector</p>
Transparency and accountability	<p>Development of improved mechanisms and general rules and principles of good governance</p> <p>Design of institutions, policies and regulation in line with the principles of good governance</p> <p>Application of the principle of 1) liberty, 2) democracy, 3) respect for human rights and 4) fundamental freedoms</p> <p>Gradual formalisation of local land rights through decentralized land administration and more accountable processes</p> <p>Taking deforestation, local indigenous knowledge, soil degradation, water demand in agriculture and climate change adaptation into account in future policies</p> <p>Taking economic, social and environmental consequences of all policies into account in relevant decision-making</p> <p>Safeguarding indigenous people's rights in development cooperation through ensuring their full participation as well as free and prior informed consent of the concerned communities</p>

ANNEX 9. Results of the Ethiopia forest law assessment (SFM and good governance)

Implications for SFM.

SFM element	Development priorities
The extent of forest resources	Protection of forest ecosystems
The forest's biological diversity	Rehabilitation of endangered indigenous species
Forest health and vitality	Conservation of biodiversity and wildlife
Productive functions of forest resources	Sustainable forest utilization and related forest management procedures Sound forest development by private forest owners
Protective functions of forest resources	Protection of all forests from fire, pests, diseases and other disasters Prevention of forest fires (all stakeholders) Maintenance and improvement of soil fertility and conservation of the soil from degradation and erosion Conservation of unique and representative habitats or natural resources
Socio-economic functions of the forest	Making forest development to benefit the people living within the forest area Consultation with peasants on envisaged benefits
The legal, policy and institutional framework	Demarcation of forest land to state, regional or protected forests Preparation of a forest development program Forest management plan for state and regional forests Technical assistance from the Ministry for the conservation, development and sustainable utilization of state and regional forests Collaboration between appropriate bodies Appropriate certificate for transport and storage of forest products Forest guards and inspectors for the mobility of forest products Training and research Control of prohibited activities

Implications for good governance.

Good forest governance element	Development priorities
Capacity-building and empowerment	Technical assistance from the Ministry for the conservation, development and sustainable utilization of state and regional forests
Extension and training	Sustainable forest utilization and related forest management procedures
Education and awareness	<ul style="list-style-type: none"> Training and research Sound forest development by private forest owners Rehabilitation of endangered indigenous species Protection of all forests from fire, pests, diseases and other disasters Prevention of forest fires (all stakeholders) Maintenance and improvement of soil fertility and conservation of the soil from degradation and erosion Conservation of unique and representative habitats or natural resources Awareness of environmental protection
Responsibility and effectiveness	<ul style="list-style-type: none"> Preparation of a forest development program Forest management plan for state and regional forests Making forest development to benefit the people living within the forest area
Coherence	Demarcation of forest land to state, regional or protected forests
Transparency and accountability	<ul style="list-style-type: none"> Collaboration between appropriate bodies Consistency between the management plans and the realized management of state and regional forests Implementation of the forest development program Forest guards and inspectors for the mobility of forest products Sound forest development by private forest owners Appropriate certificate for transport and storage of forest products Control of prohibited activities Consultation about the benefits of peasants

ANNEX 10. Results of the Ethiopian framework assessment

Capacity building for education and research.

Education and research	What needs to be done (new focus areas)?
Good forest governance	<p>Education and research for 1) sustainable forest and natural resources management planning and decision-making based on local contexts and systems and indigenous knowledge systems, 2) forest products certification, 3) forest guarding and inspection of forest products, 4) prevention of forest fires, 5) protection of forest ecosystems, 6) controlling prohibited activities, 7) conservation of biodiversity and wildlife, 8) rehabilitation of endangered indigenous species, 9) conservation, development and utilization of forests and 10) community-based and participatory sustainable management systems and practices including local knowledge and management systems</p> <p>Integrated and coordinated rural and sustainable agricultural development activities, sustainable natural resources management and environmental protection Good governance and local participatory structures, human rights, decentralization and development of democratic institutions Management planning for the conservation, development and sustainable utilization of forests Integrated and long-term planning of natural resources use and conservation Community-based and participatory sustainable management systems and practices including local knowledge and management systems Market-based and commercial agricultural development Quality standards Participation of rural people and private investors Deforestation, environmental and land degradation, loss of biodiversity and overgrazing Rural land management including land tenure security and access to land Micro-finance institutions to improve rural financial services Combating soil erosion and desertification Sustainable use, management and conservation of biodiversity including sustainable use systems, effective public-private-civil society partnerships, joint natural resources management, sound ecological principles, scientifically valid information, equitable sharing of the costs and benefits, and local knowledge</p>
SFM	Education and research for SFM practices and protection of forest ecosystems

Capacity building for new curriculum development.

New curricula development	What needs to be done (new focus areas)?
Good forest governance	<p>New courses on 1) sustainable forest and natural resources management planning and decision-making based on local contexts and systems and indigenous knowledge systems, 2) forest products certification, 3) forest guarding and inspection of forest products, 4) prevention of forest fires, 5) protection of forest ecosystems, 6) control of prohibited activities, 7) conservation of biodiversity and wildlife, 8) rehabilitation of endangered indigenous species, 9) quality standards and 10) community-based and participatory sustainable management systems and practices including local knowledge and management systems</p> <p>Integrated and coordinated rural and sustainable agricultural development activities, sustainable natural resources management and environmental protection Good governance and local participatory structures, human rights, decentralization and development of democratic institutions Management planning for the conservation, development and sustainable utilization of forests Integrated and long-term planning of natural resources use and conservation Market-based and commercial agricultural development Participation of rural people and private investors Deforestation, environmental and land degradation, loss of biodiversity and overgrazing Rural land management including land tenure security and access to land Micro-finance institutions to improve rural financial services Combating soil erosion and desertification Sustainable use, management and conservation of biodiversity including sustainable use systems, effective public-private-civil society partnerships, joint natural resources management, sound ecological principles, scientifically valid information, equitable sharing of the costs and benefits, and local knowledge</p>
SFM	New courses on 1) SFM and 2) protection of forest ecosystems

ANNEX 11. Results of the GoSS Forest Policy Framework assessment

Implications of the GoSS Forest Policy Framework for good forest governance.

Good forest governance element	Development priorities
Multiple actors, levels and networks	Land leases for individuals and companies for the establishment of forest plantations Private sector investments in forest industry through public-private-community partnerships
NFPs, policies and laws (SFM)	Formulation and implementation of forest resource development plans by GoSS-MAF and state governments including monitoring of progress National Forest Income Retention Scheme (revenue sharing) Southern Sudan Forest Fund to support current and future capacity building and forest conservation and management
Standards and principles (SFM)	Integrated rural development based on best development options including the application of social, economic, environmental and technological (e.g. environmentally sound and appropriate technologies for forest resource utilization and development) criteria Fire protection in all forests and woodlands
Decision-making and institutions	Public-Private-Community partnerships 1) to ensure sustainable forestry development and 2) for sustainable and integrated rural development (e.g. good local governance) and for the conservation of natural resources and the environment Collaborative partnerships for SFM (GoSS-MAF, state governments and rural communities) including fair sharing of benefits Support to local community forestry organizations and social forestry programmes including preservation of the rights and ownership of communities and their benefits from forest resources Support of indigenous industries (e.g. gum, honey, latex and silk production) Private sector investments in forestry industry through public-private-community partnerships
Partnerships and participation (including TFRK)	

Implications of the GoSS forest policy framework for good governance.

Good forest governance element	Development priorities
Capacity-building and empowerment	Capacity building of MAF and state forestry staff and community groups/associations through training and short course work in forestry and related sectors (DG Research and Training) Protection of all forests and woodlands from fire Prevention and control of wild fires Support to local community forestry organizations and social forestry programmes including preservation of the rights and ownership of communities and their benefits from forest resources
Extension and training	
Education and awareness	
Responsibility and effectiveness	Maintenance of close network of and working linkages between GoSS MAF, state governments and other actors such as NGOs, CBOs and private investors to ensure effective implementation of forest policy Recruitment of technical staff to state governments (e.g. for the county level) to ensure high and uniform standards of practice including trained and armed forest guards to ensure effective protection and enforcement of forestry regulations, rules and laws Private sector investments in forestry industry through public-private-community partnerships Establishing that tree cutting without permission is a crime and private possession of unlicensed sawmills and/or any commercial tree cutting equipment is illegal Establishing that setting a fire without a permission in any forest and/or woodland is a crime
Coherence	
Transparency and accountability	Pricing policy driven by free market forces taking into account fair production and processing costs Establishment, regulation and review of the prices of forest products and services to ensure transparency and fairness among the various stakeholders Fair, transparent and legally secure long-term planting and harvesting concessions in public and community lands Recognizing the full value of forest services in accounting and budgeting systems

ANNEX 12. Results of the field level assessments in Renk County (Southern Sudan)

Results of the interviews and discussions in Abu Khadra and Nger villages.

Development priority	Abu Khadra	Nger
Sustainable forest management	<ol style="list-style-type: none"> 1) Not sustainable 2) No 5% tree cover (some trees on irrigation land) 3) Wood is important and supports the community 4) More land is needed to maintain the wood supply 5) Long distance to collect wood 6) Over-cutting (trees cleared and small bushes/straws burned) 7) Trees are important and people appreciate them 	<ol style="list-style-type: none"> 1) Not sustainable 2) No 5% tree cover (not many trees on rain-fed farmland) 3) Commercial logging for charcoal; traders are from the village and use donkey carts (no outsiders or trucks) 4) It is getting harder to find trees and people are moving to remote areas to maintain the wood supply (declining amount of wood products means uncertain future) 6) Trees are important and people appreciate them
Sustainable natural resources management	<ol style="list-style-type: none"> 1) Not sustainable 2) Production levels have declined 3) Irrigation scheme not operational 4) Some fishing in river; no plant product collection 	<ol style="list-style-type: none"> 1) Not sustainable 2) Some mechanical farming 3) Production levels have declined 4) Fire is not used in land clearing
Environmental and land degradation & Climate change challenges	<ol style="list-style-type: none"> 1) Deforestation, desertification, land degradation and climate change are problems 2) Erosion is a visible problem 	<ol style="list-style-type: none"> 1) Deforestation and land degradation are serious and growing problems 2) People understand the importance of trees for the maintenance of soil quality
Land use and ownership	<ol style="list-style-type: none"> 1) Government land (Renk County) 2) Permanent land rent 3) 4 own water pumps 4) Clear cutting (licences) vs community governance causes a potential conflict 	<ol style="list-style-type: none"> 1) Land is inherited from ancestors 2) The government and international donors built a water filter 3) Local forest guard
Governance and public forest authorities	<ol style="list-style-type: none"> 1) No guidelines, rules, enforcement or monitoring from the government 2) No government information on the 5% tree cover rule 3) Government collects information, but no feedback/help ("seeing is believing") 4) Separate military camp in the area 	<ol style="list-style-type: none"> 1) No guidelines, rules or help from the government 2) No knowledge of 10% tree cover rule 3) One person is maintaining the water system together with the water department
Governance reform and development needs	<ol style="list-style-type: none"> 1) Better governance/management, materials and resources are needed (e.g. work force, new tractors from GoSS Juba and help in direct/indirect inputs to agriculture and livelihoods) 2) Willing to implement the 5% rule immediately if provided information 3) Illegal logging/trading by outside of state traders (complaints to government); 3 guards recruited by the Renk Forest Department with no relationship with the local community 4) People want that their opinions are heard ("take message higher") 	<ol style="list-style-type: none"> 1) Small loans, micro-credit and own tractor are needed (now rented) 2) Community is willing to plant trees together with mechanized farming (now they can maintain the supply of fuelwood and charcoal only by moving to more remote areas).

Results of the interviews and discussions in Goz Fami 1 and 2 villages.

Development priority	Goz Fami 1	Goz Fami 2 (nomadic)
Sustainable forest management	<ol style="list-style-type: none"> 1) Not sustainable 2) No 5% or 10% tree cover (some trees in the irrigation scheme) 3) Much commercial tree logging (10 persons work as traders and 40-100 persons work in general wood trade); wood is sold to Renk and other places 4) Over half of the wood products (e.g. charcoal/fuelwood) is sold in the village (large poles are for own use and fuelwood for domestic use) 5) Trees are important and people appreciate them 	<ol style="list-style-type: none"> 1) Not sustainable 2) No 5% tree cover 3) No commercial logging 4) Fuelwood and charcoal are for own use 5) Wood is used for many purposes (fire) 6) Long distance to trees (over 1 km) 7) No outside illegal loggers 8) Trees are important and people appreciate them
Sustainable natural resources management	<ol style="list-style-type: none"> 1) Not sustainable 2) Production levels have declined 3) Fire is used to clear bushes (controlled with firebreaks) 	<ol style="list-style-type: none"> 1) Not sustainable 2) Production levels have declined 2) Movement towards South (Juba); livestock management facing problems (up to half of the herd dies during migration to other areas)
Environmental and land degradation & Climate change challenges	<ol style="list-style-type: none"> 1) Deforestation, desertification, land degradation and climate change are problems 2) Trees are far away and the soil is getting poorer and very degraded 	<ol style="list-style-type: none"> 1) Desertification, deforestation, land degradation and climate change are serious and growing problem
Land use and ownership	<ol style="list-style-type: none"> 1) Old people inherited land and new settlers rent it from the land owners 2) Traditional production is important 3) 4 forest guards paid by the government 	<ol style="list-style-type: none"> 1) Land rented from the owners (from village 1) 2) Cattle used to migrate along traditional routes, but commercial farming has replaced them (the herds are dispersed)
Governance and public forest authorities	<ol style="list-style-type: none"> 1) No extension, rules or instructions from the government 2) No outside loggers 3) Asked for machines from the government, no reply 4) Some water systems built 	<ol style="list-style-type: none"> 1) No relationship (e.g. guidelines, rules or help) with the government 2) Help requested, but no response from the government
Governance reform and development needs	<ol style="list-style-type: none"> 1) Materials and resources are needed (e.g. fertilizers, water systems and machines and inputs to other livelihoods) 2) Willing to 1) plant 10 % trees (<i>Acacia senegal</i>) if provided seeds/seedlings and 2) consider alternative income/livelihood options to reduce tree cutting (e.g. gas cookers to substitute charcoal) 3) Take the message higher 	<ol style="list-style-type: none"> 1) Materials and resources are needed to maintain animal welfare e.g. fodder, medicines, water reservoirs/wells and shelters 2) Better to have less cattle, but healthier and more productive animals 3) Willing to keep less cattle and try new professions/livelihoods and sources of income

Results of the interviews and discussions in Shikh Yasin and Goz Rum villages.

Development priority	Shikh Yasin (semi-pastoralist)	Goz Rum
Sustainable forest management	<ol style="list-style-type: none"> 1) Not sustainable 2) No 5% or 10% tree cover 3) No commercial forest cutting and no outside cutters (no trees to make charcoal) 4) Using dry/dead <i>Acacia</i> fuelwood (lack of wood) 5) Problems with <i>Acacia senegal</i> trees (nomads damage gardens) 6) All trees logged and some young <i>Acacia seyal</i> trees are growing under protection 7) Trees are important and people appreciate them 	<ol style="list-style-type: none"> 1) Not sustainable (no 5 or 10% cover) 2) Trees have disappeared 3) No commercial tree cutting and no outside loggers 4) Tree cutting only for own use (fuelwood and charcoal); and women gather wood for cooking 5) Using only dry/dead wood (only source) 6) Some natural Hashab trees (<i>Acacia senegal</i>) left protected from outsiders 7) Trees are important and people appreciate them
Sustainable natural resources management	<ol style="list-style-type: none"> 1) Not sustainable 2) Production levels have declined 3) Up to half of the cattle (and goats) die because of lack of water (from April to June) 4) Bushes are cleared and wild plants are tended 5) Some people work in the mechanized rain-fed schemes 6) Vicinity of river is an asset 	<ol style="list-style-type: none"> 1) Not sustainable 2) Production levels have declined 3) Home gardens and goats (no cows) 5) Government supports water storage (good water with low salinity), containers and well pump (broken now)
Environmental and land degradation & Climate change challenges	<ol style="list-style-type: none"> 1) Deforestation, desertification, land degradation and climate change are serious problems 	<ol style="list-style-type: none"> 1) Desertification, deforestation, land degradation and climate change are serious and growing problems
Land use and ownership	<ol style="list-style-type: none"> 1) Water influences the division of land (depends on rainy season) 2) Own land far away (government land?) 3) No money paid for land 4) No forest guard 5) No space for extending land tenure or expanding range lands 	<ol style="list-style-type: none"> 1) Own land which is inherited from ancestors 2) Households have their own inherited farms and rented work force from the village (people without land)
Governance and public forest authorities	<ol style="list-style-type: none"> 1) County officials impose tax in many counties 2) Cattle routes and water places cause conflicts with the local community 3) No village representative in the Pastoralist Union 4) Medicines requested from the government, but payment is needed 	<ol style="list-style-type: none"> 1) 10% of the land should be planted with trees (including tree fences), but this is not implemented 2) No other instructions or rules
Governance reform and development needs	<ol style="list-style-type: none"> 1) Materials and resources are needed (e.g. facilities, medicines, water and good grass for the animals) 2) Willing to keep less cattle (healthier and more productive animals) and to try other sources of income 	<ol style="list-style-type: none"> 1) Materials and resources are needed (e.g. clear water reserves, <i>Acacia senegal</i> seeds/seedlings and maybe cows/goats) 2) Willing to 1) establish 10% <i>Acacia senegal</i> (multipurpose tree) cover if supported by the government and 2) protect the trees

ANNEX 13. Results of the 'pyramid' assessment of good forest governance

Foundations level assessment.

Element of good forest governance (foundations)	What is working?	What is missing?	Score	What needs to be done (next steps)?
Democratic systems, constitutional guarantees, human rights and the rule of law	The CPA 2004 and the INC 2005 and are in place and GoSS is developing new policies and laws	Many new policies and laws, with effective implementation	Green	Drafting and implementation of new policies and laws
Need for a strong forest sector	The forest sector is very important for Southern Sudan	Demonstration and realization of benefits	Amber	Public awareness building
Historical reasons	Forests are and have been important	Resolution of crises and disputes	Amber	Find a common vision based on both new insights and traditional and customary practices
Factors influencing forest resources	Need for multipurpose trees and forest protection	Sustainable management and protection	Amber	Implementation of new and sustainable practices
Economic and financial conditions	New development partnerships	Lack of financial and other resources	Amber	Increased development partnerships
Socio-cultural interactions	A multi-cultural Southern Sudan	Settlement of conflicts and disputes	Amber	Promotion of regional harmony and common development goals
Land and property tenure	New partnerships decentralization of governance; devolution of rights	Clear and long-term land use and ownership rights	Amber	Establishment and implementation of clear use and tenure rights
International obligations/conventions	GoSS aims to join MEAs and implement international obligations	An established international status	Amber	Joining of the main international institutions and conventions
Market, investment and trade conditions	GoSS promotes market-based development and new trade relations Some new investments have been realized	Functional markets and trade relations and enabling conditions for investments	Amber	Promotion of appropriate market, investment and trade conditions
Local government	Local communities have established some governance systems	Functional public-private-community partnerships	Amber	Support for governance decentralization and rights devolution processes
Education and training	Higher education institutions are operational and there are some training of the trainers activities	Lack of resources and institutional capacity	Amber	Support and capacity building for higher education and training

Energy and water	Some projects have been and are carried out in this field	Lack of water resources and sustainable energy	Amber	Development of water resources and sustainable energy
Labour and employment	Many people are working in traditional trades and customary professions (self or community employed)	Lack of new livelihoods Unemployment Rural-urban balance	Amber	Development of new and sustainable livelihoods
Inter- and cross-sectoral coordination, action, policies and strategies (e.g. sustainable development principles as part of policy/law)	GoSS promotes sustainable development and integrated approaches	Sustainable development policies and laws Implementation of strategies and actions	Amber	Design and implementation of sustainable development policies, laws and strategies Integration of sustainable development principles into all instruments

Roles level assessment.

Element of good forest governance (roles)	What is working?	What is missing?	Score	What needs to be done?
Multiple stakeholders	The new forest policy framework promotes stakeholder participation	Effective multi-partner networks	Red	Integration of all stakeholders into new partnerships
Partnerships and participation	The new forest policy framework promotes partnerships and participation	Establishment of appropriate and effective partnerships Full participation	Red	Establishment of new partnerships including full participation
Information	GoSS aims at promoting information sharing and public awareness	Implementation of information sharing and public awareness projects	Red	Extension activities and field-level information sharing and public awareness campaigns
Roles and institutions	The new forest policy promotes local institutional capacity building and the role of local people	Implementation of local institutional strengthening and community capacity building	Red	Local institutional capacity building and promotion of the roles of local communities and people
Skills	Traditional and customary natural resource management skills	Co-ordinated and coherent sustainable practices	Amber	Human resource development Training and extension
International cooperation	International development projects are in progress	Local level implementation	Amber	Significant increase of cooperation at all levels

Instruments level assessment.

Element of good forest governance (instruments)	What is working?	What is missing?	Score	What needs to be done?
Stakeholder knowledge and capacities	The new forest policy framework promotes full stakeholder participation	Full stakeholder participation Operational and effective partnerships	Red	Implementation of full stakeholder participation Establishment of partnerships for stakeholder capacity building
Coherent set of instruments	The new forest policy framework	Coherent sustainable development, rural development, natural resources and environmental instruments	Amber	Development and implementation of a coherent set of appropriate instruments for sustainable development
Regulatory instruments	The new forest policy framework promotes new forest law formation	New forest law	Red	Drafting and enforcement of a new forest law
Market instruments	The new forest policy framework promotes market-based forest sector development	Coherent instruments and partnerships for market-based development	Amber	Development and implementation of instruments and partnerships for market-based development
Information instruments	The new forest policy framework promotes public awareness and sharing of information and best practices	Coherent information instruments and related partnerships and extension	Red	Development and implementation of information instruments and related partnerships

Verification level assessment.

Element of good forest governance (verification)	What is working?	What is missing?	Score	What needs to be done?
Feasibility of audit scheme	The new forest policy framework and international instruments provide SFM standards	No audit scheme operational	Red	Application of audit schemes in appropriate public-private-community partnerships
Access of forest producers and consumers to internationally recognized audit schemes (for export markets)	International audit schemes are or are becoming available	International audit schemes are not utilized	Red	Internationally recognized audit schemes need to be applied to export trade to verify sustainability
Multi-stakeholder national/local groups	The new forest policy framework promotes full stakeholder participation	Multilevel and – multi-stakeholder networks and partnerships	Red	Establishment of multilevel and multi-stakeholder networks and partnerships
Locally-adapted standards	The new forest policy framework promotes local forest governance and community-based SFM	Public awareness of standards Capacity building, extension and partnerships Application of TFRK	Red	Extension to promote public awareness of standards Capacity building, extension and partnerships for implementation of standards Application of TFRK
Consistency of standards with national vision, policy and standards	The new forest policy framework promotes national vision, policy and SFM standards	The national vision, policy and SFM standards are not locally implemented and there is no general awareness of them	Red	Capacity building and extension for the national vision, policy and SFM standards at all levels
Local auditor capability	Local communities have the capability to arrange governance systems if provided with necessary training and resources	No local auditors operational	Red	Capacity building and training of local auditors
Information	The new forest policy framework promotes public awareness	Local communities are not aware of the latest policies	Red	Capacity building, education and extension for increased public awareness and information sharing

Links to policy-making	The new forest policy framework promotes governance and decision-making at appropriate levels	Lack of functional and effective networks and partnerships	Red	Establishment of functional and effective networks and partnerships
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ANNEX 14. Results of the implementation and enforcement of MEAs assessment for Southern Sudan.

Implementation and enforcement of the ITTA 2006.

Implementation instrument/measure	What's working?	What's missing?	Score	What needs to be done?
National framework and instruments	The new forest policy framework	New forest law	Red	Drafting and enforcement of new forest law for SFM
National institutional capacity building	Forest officials aim at implementing the new forest policy framework	Verification of international trade in tropical timber and timber products from sustainably managed sources	Red	Establishment of a verification system for international trade in tropical timber and timber products from sustainably managed sources Addressing illegal logging and related trade in tropical timber
Broad stakeholder consultation and involvement	The new forest policy framework promotes full stakeholder participation	Public-private-community partnerships	Amber	Establishment of public-private-community partnerships for SFM and forest products from sustainably managed forests including forest-dependent indigenous and local communities
National measures in line with standards and national and local systems, conditions and needs	The new forest policy framework is in accordance with SFM standards and promotes forest products from sustainably managed forests	Public-private-community partnerships for SFM Capacity building for local governance and institutions Verification of legally sourced timber exports through good governance, clear land tenure arrangements and cross-sectoral coordination	Red	Establishment of public-private-community partnerships Establishment of local governance including TFRK and customary and traditional systems Institutional capacity building at the local level Verification of legally sourced timber exports through good governance, clear land tenure arrangements and cross-sectoral coordination
Training, education and awareness raising	The new forest policy framework promotes extension, training, education, R&D, research and awareness raising	Capacity and resources for training, education and awareness raising	Amber	Development and implementation of appropriate training, extension, education, R&D and awareness raising for SFM standards and forest products from sustainably managed forests
Financial and technical assistance	The new forest policy framework aims at establishing new financial arrangements and promoting application of appropriate technology	Local and county level financial and technical resources	Amber	Increased, new and additional financial resources and technical assistance for local and county level capacity building

Implementation and enforcement of the CBD.

Implementation instrument/measure	What's working?	What's missing?	Score	What needs to be done?
National framework and instruments	The new forest policy framework promotes conservation and sustainable use of biological diversity	New forest law	Red	Drafting and enforcement of a new forest law for SFM and forest protection
National institutional capacity building	Forest officials aim at implementing the new forest policy framework	Institutional capacity for the conservation and sustainable use of biological diversity	Amber	Institutional capacity building for the conservation and sustainable use of biological diversity
Broad stakeholder consultation and involvement	The new forest policy framework promotes full stakeholder participation	Public-private-community partnerships	Red	Establishment of public-private-community partnerships for the conservation and sustainable use of biological diversity including forest-dependent indigenous and local communities
National measures in line with standards and national and local systems, conditions and needs	The new forest policy framework promotes 1) the conservation and sustainable use of biological diversity and 2) access to emerging benefits from global forest services such as biodiversity conservation funds	Public-private-community partnerships for the conservation and sustainable use of biological diversity Capacity building for local governance and institutions Environmental impact assessments	Amber	Establishment of public-private-community partnerships for the conservation and sustainable use of biological diversity Establishment of local governance including TFRK and customary and traditional systems Institutional capacity building at the local level Application of environmental impact assessments
Training, education and awareness raising	The new forest policy framework promotes extension, training, education, research and awareness raising	Capacity and resources for training, education and awareness raising	Amber	Development and implementation of appropriate training, extension, education, R&D and awareness raising for the conservation and sustainable use of biological diversity
Financial and technical assistance	The new forest policy framework aims at establishing new financial arrangements and promoting application of appropriate technology	Local and county level financial and technical resources	Red	Increased, new and additional financial resources and technical assistance for local and county level capacity building

Implementation and enforcement of the UNFCCC and the Kyoto Protocol.

Implementation instrument/measure	What is working?	What is missing?	Score	What needs to be done?
National framework and instruments	The new forest policy framework	New forest law	Red	Drafting and enforcement of a new forest law for SFM and forest protection
National institutional capacity building	The forest officials aim at implementing the new forest policy framework	Institutional capacity and resources for implementation of climate change adaptation and mitigation projects	Amber	Joint implementation (JI) emission-reduction or emission removal projects Technology transfer Emissions trading Investment in emission reduction projects under the Clean development mechanism (CDM)
Broad stakeholder consultation and involvement	The new forest policy framework promotes full stakeholder participation	Public-private-community partnerships	Amber	Establishment of public-private-community partnerships for climate change adaptation and mitigation including the forest-dependent indigenous and local communities
National measures in line with standards and national and local systems, conditions and needs	The new forest policy framework promotes access to emerging benefits from global forest services such as carbon sequestration	Public-private-community partnerships for climate change adaptation and mitigation Capacity building for local governance and institutions	Amber	Establishment of public-private-community partnerships for 1) climate change adaptation and mitigation and 2) global forest services such as carbon sequestration Conservation and enhancement of forest carbon stocks including full and effective engagement of indigenous people and local communities as well as the potential contribution of TFRK
Training, education and awareness raising	The new forest policy framework promotes extension, training, education, research and awareness raising about climate change adaptation and mitigation	Capacity and resources for training, education and awareness raising	Amber	Information production and sharing on emissions, policies and best practices Training, extension, education, R&D and awareness raising for climate change including adaptation and mitigation
Financial and technical assistance	The new forest policy framework aims at establishing new financial arrangements and promoting application of appropriate technology	Local and county level financial and technical resources	Amber	Increased, new and additional financial resources and technical assistance for local and county level capacity building (e.g. carbon funds, CDM, JI and REDD+) Technology transfer

Implementation and enforcement of the UNCCD.

Implementation instrument/measure	What is working?	What is missing?	Score	What needs to be done?
National framework and instruments	The new forest policy framework	A new forest law	Red	Drafting and enforcement of a new forest law for SFM and forest protection
National institutional capacity building	Forest officials aim at implementing the new forest policy framework	Institutional capacity and resources for combating desertification and for mitigation of the effects of drought	Amber	Institutional capacity building for combating desertification and for mitigation of the effects of drought
Broad stakeholder consultation and involvement	The new forest policy framework promotes full stakeholder participation	Public-private-community partnerships Empowerment Participation	Red	Establishment of public-private-community partnerships for combating desertification and for mitigation of the effects of drought including the forest-dependent indigenous and local communities Decentralization, devolution of responsibility for management and decision-making to local authorities Encouragement of initiatives and assumption of responsibility by local communities Establishment of local structures
National measures in line with standards and national and local systems, conditions and needs	The new forest policy framework promotes 1) tree planting and combating deforestation and 2) combating desertification and mitigation of the effects of drought	Public-private-community partnerships for combating desertification and for mitigation of the effects of drought Capacity building for local governance and institutions	Amber	Establishment of public-private-community partnerships for combating desertification and for mitigation of the effects of drought Capacity building for local governance and institutions
Training, education and awareness raising	The new forest policy framework promotes extension, training, education, R&D and awareness raising for combating desertification and for mitigation of the effects of drought	Capacity and resources for training, education, extension, R&D and awareness raising	Red	Training, extension, education, R&D and awareness raising for combating desertification and for mitigation of the effects of drought

Financial and technical assistance	The new forest policy framework aims at establishing new financial arrangements and promoting application of appropriate technology	Local and county level financial and technical resources	Red	Increased, new and additional financial resources and technical assistance for local and county level capacity building Technology transfer
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ANNEX 15. Results of the AFLEG and AMCEN assessment for Southern Sudan

Implications of the AMCEN for good forest governance.

Good forest governance element	Development priorities
Multiple actors, levels and networks	Climate regime support based on African priorities: 1) adaptation, 2) capacity-building, 3) research, 4) financing and 5) technology development and transfer including South-South transfer of knowledge (particularly indigenous knowledge) Regional and international cooperation to develop appropriate adaptation financing mechanisms Adaptation in key sectors such as forests, agriculture, biodiversity and ecosystems taking into account cross-sectoral implications
NFPs, policies and laws (SFM)	Coherent climate change adaptation initiatives regionally and nationally
Standards and principles (SFM)	Significant role of forests in addressing climate change challenges Reduced emissions from deforestation and forest degradation (REDD) including the development of market-based mechanisms to provide incentives for SFM practices, forest conservation and the avoidance of deforestation Best mitigation practices to enhance carbon sequestration and reduced emissions in land use, land-use change and forestry
Decision-making and institutions	Addressing climate change challenges to promote sustainable development Consideration of climate change mitigation efforts and actions aimed at alleviating the consequences of deforestation and forest degradation in future positive incentive mechanisms for emission reduction Coherence and coordination in the implementation of sustainable development and climate change initiatives Development of institutional framework for the development and transfer of appropriate technology Establishment of a fund to provide incentives for reducing emissions through sustainable land-management practices including SFM, forest conservation, the avoidance of deforestation, afforestation, and sustainable agriculture Improvement of climate risk management
Partnerships and participation (including TFRK)	Implementation of adaptation and mitigation efforts including support by finance, capacity building and technology including full participation of all stakeholders as well as full involvement and empowerment of and partnership with civil society Application of indigenous knowledge relating to sustainable development and natural resource management Investment to support access of rural communities to sustainable, clean and affordable energy Implementation of sustainable development policies and mitigation measures including special emphasis on the development of indigenous and local communities Capacity building for human resource development including training, education, research and awareness raising as well as participatory and integrated approaches in planning and decision-making Recompensation of environmental services provided by local and indigenous communities in forest protection and conservation

Capacity building for education and research (Ethiopia).

Education and research	What needs to be done (new focus areas)?
Good forest governance	<p>International, regional and subregional organisations and agreements</p> <p>Shared responsibility to address illegal logging and related trade</p> <p>Collective responsibility, training of staff, civil society participation and participatory forest management practices for forest law enforcement and governance</p> <p>Implications and implementation of the forest law</p> <p>Consistency of policies and their implementation</p> <p>SFM and legality assessments</p> <p>Traditional and customary laws and practices</p> <p>Forest law enforcement and governance</p> <p>Institutional capacity building including training and technology for forest law enforcement</p> <p>Stakeholder involvement</p> <p>Rights of indigenous people and the right of local populations to participate in forest resource management</p> <p>Climate change adaptation and mitigation</p> <p>Best mitigation practices to enhance carbon sequestration and reduced emissions in land use, land-use change and forestry</p>
SFM	<p>Good forest governance, SFM and TFRK</p> <p>Reduction of emissions from deforestation and forest degradation (REDD)</p>

Capacity building for new curricula development (Ethiopia).

New curricula development	What needs to be done (new focus areas)?
Good forest governance	<p>Forest law enforcement and governance</p> <p>Forest law</p> <p>Traditional and customary laws and practices</p> <p>International, regional and subregional organisations and agreements</p> <p>Addressing illegal logging and related trade</p> <p>Collective responsibility, training of staff, civil society participation and participatory forest management practices for forest law enforcement and governance</p> <p>Rights of indigenous people and the right of local populations to participate in forest resource management</p> <p>Financial mechanisms to support forest law enforcement and governance</p> <p>Application of international instruments within MEAs</p> <p>Climate change adaptation and mitigation</p> <p>Best mitigation practices to enhance carbon sequestration and reduced emissions in land use, land-use change and forestry</p>
SFM	<p>Good forest governance, SFM and TFRK</p> <p>Reduction of emissions from deforestation and forest degradation (REDD)</p>

ANNEX 16. Results of the EU framework assessment (Ethiopia)

Capacity building for education and research.

Education and research	What needs to be done (new focus areas)?
Good forest governance	<p>Voluntary partnerships with wood-producing countries to address illegal logging and related international trade including improvement and reform of forest governance and overall transparency in the forest sector (FLEGT)</p> <p>Credible, transparent, cost-efficient, open access and non-discriminatory voluntary and market-based forest certification schemes consistent with internationally agreed principles of SFM</p> <p>Implementation of innovative, integrated and effective approaches including 1) capacity building for good governance and forest law enforcement, 2) public-private partnerships, 3) public procurement policies and practices, 4) information sharing and addressing underlying causes, 5) wood tracking systems and best practices within supply chain management and 6) chain of custody</p> <p>Private sector initiatives for good practice in the forest sector in line with the principles of corporate social responsibility including high standards in voluntary codes of conduct, sourcing of legal timber, transparent activities and independent monitoring</p> <p>Improved due diligence for clearly defined, legal and sustainable long-term timber supply</p> <p>Better integration of forests and forest products into sectoral policies</p> <p>Safeguard and risk management practices for financial institutions and investments including conformity with legislation, environmental and social impact assessments and codes of practice for forest sector projects</p> <p>Maintenance, conservation, restoration and enhancement of biological diversity of forests</p> <p>Forests as carbon sinks and sources of environmentally friendly raw material</p>
SFM	<p>Good governance for SFM, forest protection and forest law enforcement</p> <p>Multifunctional role of forests including their social, economic, environmental, ecological and cultural functions</p> <p>Application of the principles of sustainability</p> <p>Specific approaches and actions for the different types of forest recognising the wide range of natural, social, economic and cultural conditions of the forests</p> <p>Implementation of SFM through secure property and land tenure rights</p> <p>SFM for climate change adaptation and mitigation: 1) carbon sinks and reservoirs, 2) reduced emissions from deforestation and forest degradation and 3) use of biomass and wood-based products</p> <p>Improvement of the research potential and encouragement of innovation to promote SFM</p> <p>Taking into account both the contribution of forests and forest products to other policies and the impacts of other policies on forests and forest products, so as to guarantee the required consistency of a holistic approach towards SFM (e.g. in development cooperation policies)</p>

Capacity building for new curriculum development.

New curricula development	What needs to be done (new focus areas)?
Good forest governance	<p>Capacity building for good governance and forest law enforcement</p> <p>Public-private partnerships, information sharing and addressing underlying causes</p> <p>Wood tracking systems and best practices within supply chain management and a chain of custody</p> <p>Voluntary and market-based forest certification schemes consistent with internationally agreed principles of SFM</p> <p>Addressing illegal logging and related international trade (FLEGT)</p> <p>Improvement and reform of forest governance and overall transparency in the forest sector</p> <p>Private sector initiatives for good practice in the forest sector in line with the principles of corporate social responsibility including high standards in voluntary codes of conduct, sourcing of legal timber, transparent activities, and independent monitoring</p> <p>Improved due diligence for clearly defined, legal and sustainable long-term timber supply</p> <p>Safeguard and risk management practices for financial institutions and investments including conformity with legislation, environmental and social impact assessments and codes of practice for forest sector projects</p> <p>Maintenance, conservation, restoration and enhancement of biological diversity of forests</p>
SFM	<p>Good governance for SFM, forest protection and forest law enforcement</p> <p>Multifunctional role of forests including their social, economic, environmental, ecological and cultural functions</p> <p>Application of the principles of sustainability</p> <p>Specific approaches and actions for the different types of forests recognising the wide range of natural, social, economic and cultural conditions of the forests</p> <p>Implementation of SFM through secure property and land tenure rights</p> <p>SFM for climate change adaptation and mitigation: 1) carbon sinks and reservoirs, 2) reduced emissions from deforestation and forest degradation and 3) use of biomass and wood-based products</p>

ANNEX 17. Results of the global governance framework (Ethiopia)

Capacity building for training and extension services.

Training and extension services	What needs to be done (new focus areas)?
Good forest governance	<p>Capacity building for 1) forest law enforcement and governance and 2) addressing illegal logging and related trade in tropical timber</p> <p>Information sharing for better understanding of voluntary mechanisms such as certification to promote sustainable management of tropical forests</p> <p>Improved understanding of the contribution of non-timber forest products and environmental services to the sustainable management of tropical forests</p> <p>Public awareness programmes for the conservation and sustainable use of biological diversity</p> <p>Provision of appropriate training and technology in the use of alternative energy sources (particularly renewable energy resources and those aimed at reducing dependence on wood for fuel)</p> <p>Capacity-building including institution building, training and development of relevant local and national capacities for efforts to combat desertification and mitigate the effects of drought including full participation of all levels of local people</p> <p>Establishment and/or strengthening of support and extension services to disseminate relevant technology methods and techniques</p> <p>Training field agents and members of rural organizations in participatory approaches for the conservation and sustainable use of natural resources</p> <p>Public awareness for efforts to combat desertification and mitigate the effects of drought including full participation of all levels of local people</p> <p>Increased financial and technical assistance for local and county level capacity building</p> <p>Support to and development of tropical timber reforestation as well as rehabilitation and restoration of degraded forest land with due regard for the interests of local communities dependent on forest resources</p> <p>International trade in tropical timber from sustainably managed and legally harvested forests</p> <p>Improved market intelligence and information sharing on the international timber market</p> <p>Cooperation between governmental authorities and private sector in developing methods for sustainable use of biological resources</p> <p>Establishment of a system of protected areas or areas where special measures need to be taken to conserve the biological diversity including development of guidelines for their selection, establishment and management</p> <p>Transfer of or access to environmentally sound technologies and know-how especially to meet the specific needs and concerns of 1) arid and semi-arid areas, 2) forested areas and areas liable to forest decay, 3) areas prone to natural disasters, 4) areas liable to drought and desertification, 5) areas with fragile ecosystems and 6) economies that are highly dependent on income generated from the production, processing and export of fossil fuels and associated energy-intensive products</p> <p>Exchange of information on appropriate technology, knowledge, know-how and practices between and among them for combating desertification</p> <p>Capacity building for the improvement of institutional frameworks, technical capabilities, information collection and analysis for combating desertification</p> <p>Regulation or management of biological resources important for the conservation of biological diversity whether within or outside protected areas with a view to ensure their conservation and sustainable use</p> <p>Definition of the roles and responsibilities of the central government and local authorities within the framework of a land use planning policy and adjustment of the institutional and regulatory framework of natural resource management to provide security of land tenure for local populations within NAPs</p> <p>Encouragement of active decentralization, devolving responsibility for management and</p>

decision-making to local authorities and encouraging initiatives and the assumption of responsibility by local communities and the establishment of local structures for combating desertification within NAPs
 Forest products from sustainably managed forests
 Combating illicit international trafficking in forest products and addressing forest-related illegal practices
 Environmental impact assessments
 Voluntary instruments for forest products from sustainably managed forests
 Multiple values of forest products and services
 Sustainable use of components of biological diversity
 Development and application of technology transfer, practices and processes that control, reduce or prevent human-induced emissions of greenhouse gases in all relevant sectors including forestry and agriculture
 Sustainable management and cooperation in the conservation and enhancement of sinks and reservoirs of all greenhouse gases including biomass, forests and other terrestrial ecosystems
 International trade in forest products from sustainably managed forests
 Local level institutional capacity building
 Cross-sectoral policy integration and coordination
 Expansion and diversification of international trade in tropical timber from sustainably managed and legally harvested forests
 Rehabilitation and restoration of degraded ecosystems and promotion of the recovery of threatened species e.g. through the development and implementation of conservation plans or other management strategies
 Capacity building for local governance and institutions including TFRK and customary and traditional systems
 National and local adoption of forest-related technologies
 Participation of all stakeholders (including local communities)
 Protection and encouragement of customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements
 Respect, preservation and maintenance of knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biological diversity
 Wider application of knowledge, innovations and practices of indigenous and local communities (with the approval and involvement of the holders) and promotion of the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices
 Support to local populations to develop and implement remedial action in degraded areas where biological diversity has been reduced
 Use and dissemination of the knowledge, know-how and practices of local people in technical cooperation programmes for combating desertification
 Capacity-building including institution building, training and development of relevant local and national capacities for efforts to combat desertification and mitigate the effects of drought including full participation of all levels of local people
 Establishment and/or strengthening of support and extension services to disseminate relevant technology methods and techniques
 Training field agents and members of rural organizations in participatory approaches for the conservation and sustainable use of natural resources
 Education and public awareness for efforts to combat desertification and mitigate the effects of drought including full participation of all levels of local people

SFM	<p>Public-private-community partnerships for SFM including TFRK</p> <p>Development and implementation of appropriate training, extension and awareness raising measures for SFM</p> <p>Extension and training for the implementation of SFM</p> <p>Enforcement of a new forest law for SFM</p> <p>Development and implementation of NFPs and policies for SFM</p> <p>Forest law enforcement and good governance at all levels</p> <p>C&I for SFM including TFRK</p> <p>Sustainable management of tropical timber producing forests</p> <p>Access to and transfer of environmentally sound and innovative technologies and knowhow for SFM</p> <p>Sharing and use of best practices for SFM</p> <p>Incorporation of TFRK into SFM</p> <p>Incentives for SFM and forest protection</p> <p>Monitoring, assessment and reporting of progress towards SFM</p> <p>Recognition of the role of forest-dependent indigenous and local communities in achieving SFM and development of strategies to enhance the capacity of these communities to sustainably manage tropical timber producing forests</p>
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Capacity building for education and research.

Education and research	What needs to be done (new focus areas)?
Good forest governance	<p>Capacity building for 1) forest law enforcement and governance and 2) addressing illegal logging and related trade in tropical timber</p> <p>International trade in forest products from sustainably managed forests</p> <p>Linking global, regional, national and local governance through networks</p> <p>Forestry R&D (including integrated and interdisciplinary research)</p> <p>Information sharing for better understanding of voluntary mechanisms such as certification to promote sustainable management of tropical forests</p> <p>R&D to improve forest management and efficiency of wood utilization and the competitiveness of wood products as well as to increase the capacity to conserve and enhance other forest values in timber producing tropical forests</p> <p>Improved understanding of the contribution of non-timber forest products and environmental services to sustainable management of tropical forests</p> <p>Cooperation between governmental authorities and private sector in developing methods for sustainable use of biological resources</p> <p>International and national scientific and technical cooperation in the field of conservation and sustainable use of biological diversity</p> <p>Education programmes for the conservation and sustainable use of biological diversity</p> <p>Precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects (lack of full scientific certainty should not be used as a reason for postponing measures in case of serious threats or irreversible damage)</p> <p>Full and open exchange of scientific, technological, technical, socio-economic and legal information on the climate system and change as well as the economic and social consequences of response strategies</p> <p>NAPs to promote research and collection, processing and exchange of information on the scientific, technical and socio-economic aspects of desertification</p> <p>Capacity building for the improvement of institutional frameworks, scientific and technical capabilities, information collection and analysis and R&D for combating desertification</p> <p>Education for efforts to combat desertification and mitigate the effects of drought including full participation of all levels of local people</p> <p>Cross-sectoral policy integration and coordination</p> <p>International trade in tropical timber from sustainably managed and legally harvested forests</p> <p>Improved market intelligence and information sharing on the international timber market</p> <p>Cooperation between governmental authorities and private sector in developing methods for sustainable use of biological resources</p> <p>International and national scientific and technical cooperation in the field of conservation and sustainable use of biological diversity</p> <p>Exchange of information on appropriate technology, knowledge, know-how and practices between and among them for combating desertification</p> <p>Capacity building for the improvement of institutional frameworks, technical capabilities, information collection and analysis for combating desertification</p> <p>Regulation or management of biological resources important for the conservation of biological diversity whether within or outside protected areas with a view to ensure their conservation and sustainable use</p> <p>Development or maintenance of necessary legislation and/or other regulatory provisions for the protection of threatened species and populations</p> <p>Obligation of affected countries to provide an enabling environment through appropriate strengthening of relevant existing legislation and enactment of new laws and the establishment of long-term policies and action programmes for combating desertification</p> <p>Definition of the roles and responsibilities of central government and local authorities within the framework of a land use planning policy and adjustment of the institutional and regulatory framework of natural resource management to provide security of land tenure for local populations within NAPs</p>

	<p>Encouragement of active decentralization, devolving responsibility for management and decision-making to local authorities and encouraging initiatives and the assumption of responsibility by local communities and the establishment of local structures for combating desertification within NAPs</p> <p>Combating illicit international trafficking in forest products and addressing forest-related illegal practices</p> <p>Environmental impact assessments</p> <p>Voluntary instruments for forest products from sustainably managed forests</p> <p>Multiple values of forest products and services</p> <p>Sustainable use of components of biological diversity</p> <p>Development and application of technology transfer, practices and processes that control, reduce or prevent human-induced emissions of greenhouse gases in all relevant sectors including forestry and agriculture</p> <p>Sustainable management and cooperation in the conservation and enhancement of sinks and reservoirs of all greenhouse gases including biomass, forests and other terrestrial ecosystems</p> <p>Local level institutional capacity building</p> <p>Cross-sectoral policy integration and coordination</p> <p>Expansion and diversification of international trade in tropical timber from sustainably managed and legally harvested forests</p> <p>Rehabilitation and restoration of degraded ecosystems and promotion of the recovery of threatened species e.g. through the development and implementation of plans or other management strategies</p> <p>Integration of the consideration of conservation and sustainable use of biological resources into national decision-making</p> <p>Consideration of the specific needs and special circumstances of areas that are particularly vulnerable to the adverse effects of climate change</p> <p>Obligation of African countries to 1) rationalize and strengthen existing institutions concerned with desertification and drought, 2) involve other existing institutions to make them more effective and to ensure more efficient use of resources and 3) implement reforms in progress towards greater decentralization and resource tenure for combating desertification</p> <p>Obligation of African countries to 1) implement financial allocations from their national budgets consistent with national conditions and capabilities and reflecting this new priority, 2) expand existing national capabilities and facilities to mobilize domestic financial resources and 3) identify and mobilize new and additional national financial resources</p> <p>Obligation of affected countries to address the underlying causes of desertification and pay special attention to the socio-economic factors contributing to the desertification processes</p> <p>Capacity building for local governance and institutions including TFRK and customary and traditional systems</p> <p>National and local adaptation of forest-related technologies</p> <p>Participation of all stakeholders (including local communities)</p> <p>Protection and encouragement of customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements</p> <p>Respect, preservation and maintenance of knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biological diversity</p> <p>Wider application of knowledge, innovations and practices of indigenous and local communities (with the approval and involvement of the holders) and promotion of the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices</p> <p>Support of local populations to develop and implement remedial action in degraded areas where biological diversity has been reduced</p> <p>Use and dissemination of the knowledge, know-how and practices of local people in technical cooperation programmes for combating desertification</p> <p>Capacity-building including institution building, training and development of relevant local and national capacities for efforts to combat desertification and mitigate the effects of drought</p>
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	<p>including full participation of all levels of local people</p> <p>Establishment and/or strengthening of support and extension services to disseminate relevant technology methods and techniques</p> <p>Training field agents and members of rural organizations in participatory approaches for the conservation and sustainable use of natural resources</p> <p>Education and public awareness for efforts to combat desertification and mitigate the effects of drought including full participation of all levels of local people</p> <p>Obligation of African countries to implement participation of local populations and communities in combating desertification</p> <p>Obligation of affected countries to promote awareness and facilitate the participation of local populations in efforts to combat desertification and mitigate the effects of drought (with the support of NGOs)</p>
SFM	<p>Public-private-community partnerships for SFM including TFRK</p> <p>Development and implementation of appropriate education and awareness raising measures for SFM</p> <p>Education for the implementation of SFM</p> <p>Enforcement of a new forest law for SFM</p> <p>Development and implementation of NFPs and policies for SFM</p> <p>Forest law enforcement and good governance at all levels</p> <p>C&I for SFM including TFRK</p> <p>Sustainable management of tropical timber producing forests</p> <p>Access to and transfer of environmentally sound and innovative technologies and knowhow for SFM</p> <p>Sharing and use of best practices for SFM</p> <p>Incorporation of TFRK into SFM</p> <p>Incentives for SFM and forest protection</p> <p>Monitoring, assessment and reporting of progress towards SFM</p> <p>Incorporation of scientific expertise into SFM</p> <p>Recognition of the role of forest-dependent indigenous and local communities in achieving SFM and development of strategies to enhance the capacity of these communities to sustainably manage tropical timber producing forests</p>

Capacity building for new curricula development.

New curriculum development	What needs to be done (new focus areas)?
Good forest governance	<p>Courses on 1) forest law enforcement and governance, 2) addressing illegal logging and related trade in tropical timber, 3) voluntary mechanisms such as certification to promote sustainable management of tropical forests, 4) the contribution of non-timber forest products and environmental services to the sustainable management of tropical forests, 5) the conservation and sustainable use of biological diversity, 6) alternative energy sources (particularly renewable energy resources and aimed at reducing dependence on wood for fuel), 7) combating desertification and mitigating the effects of drought including full participation of all levels of local people, 8) participatory approaches for the conservation and sustainable use of natural resources, 9) local and county level capacity building and 10) tropical timber reforestation as well as rehabilitation and restoration of degraded forest land with due regard for the interests of local communities dependent on forest resources</p> <p>Courses on 1) international trade in tropical timber from sustainably managed and legally harvested forests, 2) market intelligence and information sharing on the international timber market, 3) cooperation between governmental authorities and private sector in developing methods for sustainable use of biological resources, 4) a system of protected areas or areas where special measures need to be taken to conserve the biological diversity including development of guidelines for their selection, establishment and management, 5) transfer of or access to environmentally sound technologies and know-how, 6) appropriate technology, knowledge, know-how and practices for combating desertification, 7) capacity building for the improvement of institutional frameworks, technical capabilities, information collection and analysis for combating desertification, 8) regulation or management of biological resources important for the conservation of biological diversity whether within or outside protected areas with a view to ensure their conservation and sustainable use, 9) the roles and responsibilities of central government and local authorities within the framework of a land use planning policy and 10) adjustment of the institutional and regulatory framework of natural resource management to provide security of land tenure for local populations and encouragement of active decentralization, devolution of the responsibility for management and decision-making to local authorities and encouraging initiatives and the assumption of responsibility by local communities, and the establishment of local structures for combating desertification within NAPs</p> <p>Courses on 1) forest products from sustainably managed forests, 2) combating illicit international trafficking in forest products and addressing forest-related illegal practices, 3) environmental impact assessments, 4) voluntary instruments for forest products from sustainably managed forests, 5) multiple values of forest products and services, 6) sustainable use of components of biological diversity, 7) development and application of technology transfer, practices and processes that control, reduce or prevent human-induced emissions of greenhouse gases in all relevant sectors including forestry and agriculture, 8) sustainable management and cooperation in the conservation and enhancement of sinks and reservoirs of all greenhouse gases including biomass, forests and other terrestrial ecosystems, 9) local level institutional capacity building and cross-sectoral policy integration and coordination and 10) the rehabilitation and restoration of degraded ecosystems and promotion of the recovery of threatened species e.g. through the development and implementation of plans or other management strategies</p> <p>Courses on 1) capacity building for local governance and institutions including TFRK and customary and traditional systems, 2) national and local adaptation of forest-related technologies, 3) participation of all stakeholders (including local communities), 4) protection and encouragement of customary use of biological resources in accordance</p>

	<p>with traditional cultural practices that are compatible with conservation or sustainable use requirements, 5) preservation and maintenance of knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biological diversity, 6) the application of knowledge, innovations and practices of indigenous and local communities (with the approval and involvement of the holders) and promotion of the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices, 7) the use and dissemination of the knowledge, know-how and practices of local people in technical cooperation programmes for combating desertification, 8) capacity-building including institution building, training and development of relevant local and national capacities for efforts to combat desertification and mitigate the effects of drought including full participation of all levels of local people, 9) linking the global, regional, national and local governance through networks and 10) forestry R&D including integrated and interdisciplinary research</p> <p>Courses on 1) efficient wood utilization and the competitiveness of wood products, 2) conservation and enhancement other forest values in timber producing tropical forests, 3) the economic and social consequences of climate response strategies, 4) the scientific, technical and socio-economic aspects of desertification, 5) institutional frameworks, scientific and technical capabilities, information collection, analysis and R&D for combating desertification, 6) the legislation and/or other regulatory provisions for the protection of threatened species and populations, 7) an enabling environment including existing legislation and enactment of new laws as well as the establishment of long-term policies and action programmes for combating desertification, 8) multiple values of forest products and services, 9) the integration of conservation and sustainable use of biological resources into national decision-making and 10) the specific needs and special circumstances of areas that are particularly vulnerable to the adverse effects of climate change</p> <p>Courses on 1) precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects (lack of full scientific certainty should not be used as a reason for postponing measures in case of serious threats or irreversible damage), 2) institutions concerned of desertification and drought, 3) reforms for decentralization and resource tenure for combating desertification, 4) addressing the underlying causes of desertification, 5) the socio-economic factors contributing to the desertification processes, 6) local level remedial actions in degraded areas where biological diversity has been reduced and 7) participation of the local people and communities in efforts to combat desertification and mitigate the effects of drought (with the support of NGOs)</p>
SFM	<p>Course on 1) public-private-community partnerships for SFM including TFRK, 2) C&I for SFM including TFRK, 3) sustainable management of tropical timber producing forests, 4) access to and transfer of environmentally sound and innovative technologies and knowhow for SFM, 5) sharing and use of best practices for SFM, 6) incorporation of TFRK into SFM, 7) incentives for SFM and forest protection, 8) monitoring, assessment and reporting of progress towards SFM and 9) recognition of the role of forest-dependent indigenous and local communities in achieving SFM and the development of strategies to enhance the capacity of these communities to sustainably manage tropical timber producing forests</p>

ANNEX 18. Results of the global framework assessment (Southern Sudan)

Implications of the global governance framework for good forest governance.

Good forest governance element	Development priorities
Multiple actors, levels and networks	<p>Linking global, regional, national and local governance through networks</p> <p>Development and implementation of appropriate training, extension, education and awareness raising measures for SFM</p> <p>Increased financial and technical assistance for local and county level capacity building</p> <p>Cross-sectoral policy integration and coordination</p> <p>Support and development of tropical timber reforestation as well as rehabilitation and restoration of degraded forest land with due regard for the interests of local communities dependent on forest resources</p> <p>Expansion and diversification of international trade in tropical timber from sustainably managed and legally harvested forests</p> <p>Improved market intelligence and information sharing on the international timber market</p> <p>Cooperation between governmental authorities and private sector in developing methods for sustainable use of biological resources</p> <p>International and national scientific and technical cooperation in the field of conservation and sustainable use of biological diversity</p> <p>Establishment of a system of protected areas or areas where special measures need to be taken to conserve the biological diversity including the development of guidelines for their selection, establishment and management</p> <p>Transfer of or access to environmentally sound technologies and know-how to especially meet the specific needs and concerns of 1) arid and semi-arid areas, 2) forested areas and areas liable to forest decay, 3) areas prone to natural disasters, 4) areas liable to drought and desertification, 5) areas with fragile ecosystems and 6) economies that are highly dependent on income generated from the production, processing and export of fossil fuels and associated energy-intensive products</p> <p>Obligation of developed countries to promote, finance and/or facilitate the financing of the transfer, adaptation and access to appropriate environmental technologies and know-how for combating desertification</p> <p>Obligation of African countries to 1) promote regional cooperation and integration in programmes and activities and 2) promote the exchange of information on appropriate technology, knowledge, know-how and practices between and among them for combating desertification</p> <p>Obligation of developed countries to assist in strengthening of capacities to enable improvement of institutional frameworks, scientific and technical capabilities, information collection and analysis and R&D for combating desertification</p> <p>Obligation of developed countries to 1) provide and/or facilitate access to financial and/or other resources and 2) continuously allocate significant resources and/or increased resources</p>
NFPs, policies and laws (SFM)	<p>Drafting and enforcement of a new forest law for SFM</p> <p>Development and implementation of NFPs and policies for SFM</p> <p>Forest law enforcement and good governance at all levels</p> <p>Development of national policies aimed at sustainable utilization and conservation of timber producing forests and maintaining ecological balance in the context of the tropical timber trade</p> <p>The capacity to 1) improve forest law enforcement and governance and 2) address illegal logging and related trade in tropical timber</p> <p>Regulation or management of biological resources important for the conservation of biological diversity whether within or outside protected areas with a view to ensure their conservation and sustainable use</p>

	<p>Development or maintenance of necessary legislation and/or other regulatory provisions for the protection of threatened species and populations</p> <p>Obligation of affected countries to provide an enabling environment through appropriate strengthening of the relevant existing legislation, enactment of new laws and establishment of long-term policies and action programmes for combating desertification</p> <p>NAPs to 1) define the roles and responsibilities of central government and local authorities within the framework of a land use planning policy and 2) adjust the institutional and regulatory framework of natural resource management to provide security of land tenure for local populations</p> <p>NAPs to encourage active decentralization, devolution of responsibility for management and decision-making to local authorities, initiatives and the assumption of responsibility by local communities, and the establishment of local structures for combating desertification</p>
Standards and principles (SFM)	<p>Forest products from sustainably managed forests</p> <p>Combating illicit international trafficking in forest products and addressing forest-related illegal practices</p> <p>C&I for SFM including TFRK</p> <p>Sustainable management of tropical timber producing forests</p> <p>Environmental impact assessments</p> <p>Voluntary instruments for forest products from sustainably managed forests</p> <p>Multiple values of forest products and services</p> <p>Access to and transfer of environmentally sound and innovative technologies and knowhow for SFM</p> <p>Sharing and use of best practices for SFM</p> <p>Further processing of tropical timber from sustainable sources in producer member countries to promote their industrialization and to increase their employment opportunities and export earnings</p> <p>Sustainable use of components of biological diversity</p> <p>Development and application of technology transfer, practices and processes that control, reduce or prevent human-induced emissions of greenhouse gases in all relevant sectors including forestry and agriculture</p> <p>Sustainable management and cooperation in the conservation and enhancement of sinks and reservoirs of all greenhouse gases including biomass, forests and other terrestrial ecosystems</p>
Decision-making and institutions	<p>International trade in forest products from sustainably managed forests</p> <p>Local level institutional capacity building</p> <p>Cross-sectoral policy integration and coordination</p> <p>Sharing and use of best practices in SFM</p> <p>TFRK in SFM</p> <p>Incentives for SFM and forest protection</p> <p>Monitoring, assessment and reporting of progress towards SFM</p> <p>Incorporation of scientific expertise into SFM</p> <p>Expansion and diversification of international trade in tropical timber from sustainably managed and legally harvested forests</p> <p>Mechanisms for the provision of new and additional financial resources with a view to promote the adequacy and predictability of funding and expertise</p> <p>Integration of the conservation and sustainable use of biological resources into national decision-making</p> <p>Rehabilitation and restoration of degraded ecosystems and promotion of the recovery of threatened species e.g. through the development and implementation of plans or other management strategies</p> <p>Consideration of the specific needs and special circumstances of areas that are particularly vulnerable to the adverse effects of climate change</p> <p>Precautionary measures to anticipate, prevent or minimize the causes of climate</p>

	<p>change and mitigate its adverse effects (lack of full scientific certainty should not be used as a reason for postponing measures in case of serious threats or irreversible damage)</p> <p>Obligation of African countries to 1) rationalize and strengthen existing institutions concerned with desertification and drought, 2) involve other existing institutions to make them more effective and to ensure more efficient use of resources and 3) implement reforms in progress towards greater decentralization and resource tenure for combating desertification</p> <p>Obligation of African countries to 1) implement financial allocations from their national budgets consistent with national conditions and capabilities and reflecting this new priority, 2) expand existing national capabilities and facilities to mobilize domestic financial resources and 3) identify and mobilize new and additional national financial resources</p> <p>Obligation of affected countries to address the underlying causes of desertification and pay special attention to the socio-economic factors contributing to the desertification processes</p>
Partnerships and participation (including TFRK)	<p>Public-private-community partnerships for SFM including TFRK</p> <p>Capacity building for local governance and institutions including TFRK and customary and traditional systems</p> <p>National and local adaptation of forest-related technologies</p> <p>International, regional and subregional partnerships for SFM (including South-South cooperation)</p> <p>Participation of all stakeholders (including local communities)</p> <p>Recognition of the role of forest-dependent indigenous and local communities in achieving SFM and in the development of strategies to enhance the capacity of these communities to sustainably manage tropical timber producing forests</p> <p>Protection and encouragement of customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements</p> <p>Respect, preservation and maintenance of knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biological diversity</p> <p>Wider application of knowledge, innovations and practices of indigenous and local communities (with the approval and involvement of the holders) and promotion of the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices</p> <p>Support to local populations to develop and implement remedial action in degraded areas where biological diversity has been reduced</p> <p>Use and dissemination of the knowledge, know-how and practices of local people in technical cooperation programmes for combating desertification</p> <p>Capacity-building including institution building, training and development of relevant local and national capacities, for efforts to combat desertification and mitigate the effects of drought including full participation of all levels of local people</p> <p>Obligation of African countries to implement participation of local populations and communities in combating desertification</p> <p>Establishment and/or strengthening of support and extension services to disseminate relevant technology methods and techniques</p> <p>Training field agents and members of rural organizations in participatory approaches for the conservation and sustainable use of natural resources</p> <p>Education and public awareness for efforts to combat desertification and mitigate the effects of drought including full participation of all levels of local people</p> <p>Obligation of affected countries to promote awareness and facilitate the participation of local populations in efforts to combat desertification and mitigate the effects of drought (with the support of NGOs)</p>

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Publisher Viikki Tropical Resources Institute (VITRI)
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Website www.mmm.helsinki.fi/vitri

Cover Design Lesley Quagrainie

Suggested reference abbreviation:
Univ. Helsinki Tropic. Forest. Rep.

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ISBN 978-952-92-8405-4 (paperback)
ISBN 978-952-10-6744-0 (PDF)
ISSN 0786-8170
Helsinki 2011
Unigrafia Oy