Chapter 1. The role of certification in accelerating sustainable forest management on the continent

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1. Introduction

Forest resources provide multiple benefits and have direct and measurable impacts on people's lives. Forests, trees on farms, and agroforestry systems play important roles in the livelihoods of rural people by providing employment, energy, nutritious foods and a wide range of goods and ecosystem services in most regions of the world (Njuki et al., 2004; Kowero et al., 2009; FAO, 2014). Well managed forests have tremendous potential to contribute to sustainable development and a greener economy (Muthoo, 2012).

Africa is characterised by extremely diverse ecological conditions, ranging from humid forests to deserts and from mountain temperate forests to coastal mangrove swamps. Superimposed on this ecological diversity are varying degrees of human interaction, which are shaped by political and institutional arrangements, economic conditions, social and cultural settings (FAO, 2003; Barklund and Teketay, 2004). Africa also harbours the second largest bloc of rainforest after Amazonia, which represents more than 15% (180 million ha) of tropical forests (FSC, 2014a). Over 90% of the 1.2 billion people living in extreme poverty depend on forests for some part of their livelihoods. Forest resources are also a major contributor to the national income of most countries in the continent, notably countries in the Congo Basin Sub-Region (FSC, 2014a). In general, similar to their counterparts elsewhere in the world, African forests have fulfilled and continue to fulfil critical economic, environmental, social and cultural functions (Barklund and Teketay, 2004; Njuki et al., 2004; Kowero et al., 2009; FAO, 2014).

The two main global forest challenges, namely deforestation and degradation, appear to be more pronounced in Africa than in other regions. On the surface they would be conceived as loss of forest cover and quality of forests, but in many parts of Africa these challenges are much more serious because they impact on human survival and environmental stability. According to the Millennium Ecosystem Assessment (2005) "deforestation involves the conversion of forests to another land cover type, degradation results when forests remain forests but lose their ability to provide ecosystem services or suffer major changes in species composition due to overexploitation, exotic species invasion, pollution, fires, or other factors." Forest degradation in Africa can be attributed to agriculture expansion by small holder farmers, livestock grazing, collection of fuelwood and making of charcoal (Hosonuma et al., 2012). Deforestation and forest degradation are a result of activities in many sectors in African national economies; they therefore deserve serious attention in terms of political will and action, as well as close coordination of related sectors, in addition to availability of adequate resources to manage the forests sustainably.

Sustainable management of the vast and diverse African natural forest resource continues to be a complex issue that is also extremely challenging. Large tracts of natural forests are being treated as open access resources. Further, there is scanty information on the biophysical aspects of the natural forest estate, and even less on the properties and end use of the various tree species. There is much less information on socio-economic and policy aspects related to forest conditions, and responses to the same by users of such resources. In short, there is inadequate information of questionable quality and quantity, to guide rational decision making

in planning and managing the resources. The resources should be managed and used in ways that address broader societal goals like to eradicate rural poverty and promote environmental protection.

There are other constraints that continue to make it difficult for the majority of African countries to manage these forests sustainably. Firstly, while forests are increasingly being appreciated, thanks to their role in containing some of the adverse effects of climate change, the forestry sector continues to receive low government priority in terms of political action and resources, and this has worsened because governments are pressurized by economic reforms to reduce public expenditure, and this translates into insufficient budgetary allocations to the sector.

Indigenous trees growing in afro-temperate forest in South Africa. Photo Abu Shakwa/Wikimedia Commons

On the other hand, in many countries, policy and market failures have promoted the liquidation and degradation of the forest resources, sometimes to finance government expenditure and support livelihoods.

Secondly, many African countries, in their day-to-day struggle to satisfy the most basic needs of their populations (notably food), cannot accommodate the long-term investment and financing periods required for the successful implementation of forest management programmes. The result has been that the forestry sector continues to be subjected to annual cash budgets in many countries. Further, credit is increasingly available at rates of interests that make investments in primary forest production and, to some extent in wood processing, not attractive and profitable. There is, in addition, lack of incentives, in particular to local communities and the private sector, to sustainably manage and use natural forest resources.

Thirdly, forestry institutions in many African countries are weak, again mainly due to economic reforms that have, at times, led to inadequate funding and constrained recruitment of staff for the sector. This then compounds the problem of adequately conserving and managing the continent's forest resources. Fourth, economic reforms required governments, who in many African countries were major investors in industrial round wood production, processing and marketing, to channel these responsibilities to the private sector. However, the private forestry sector in many countries continues to be made up of many small, dispersed and unorganized players, who lack financial and other resources for investment, and who do not form an entity that can express its opinions in any forum. It also does not appear in central government plans, as well as in allocation of national resources. As a result, there has been loss in momentum in building a holistic and cohesive private foresty sector on the continent, and this has hampered a smooth link between primary and secondary forestry production.

In summary, the nexus between rapid population growth, poor agricultural performance, rural poverty, environmental degradation, market and policy failures, and the use of inappropriate technologies provides the basic context within which deforestation and forest degradation are taking place in Africa. This complexity seriously constrains the conception and development of sustainable management practices for these forest resources.

The foregoing notwithstanding, in the last two and half decades several planning frameworks under names such as National Forestry Action Plans, Forestry Master Plans, Forestry Sector Reviews, and National Forest Programmes have been undertaken in many countries in order to improve both planning and management of forest resources. They have led to revisions and/or instituting national forestry policies, legislation and plans. Further, many African governments have participated in numerous forestry related international processes, thereby becoming signatories to various international agreements and conventions, all of which emphasise managing forest resources sustainably. In this regard African countries have underlined their commitment to the sustained production of forest related international public goods and services.

African governments are also embracing new paradigms on both political and economic fronts. There is increasing participation of local communities in decision making. This has gradually been extended to managing natural forest resources. Local communities are becoming more empowered to undertake ownership and management functions from national central governments. On the economic front there is increased private sector participation in the national economies within a larger market-oriented framework. This has seen the increasing opening up of the forestry sector to private investment. Industrial plantation management in Africa has not been very challenging because investors could draw upon experiences from other countries.

Further, African governments are increasingly becoming aware of the role of natural forest resources to the broader socio-economic development and environmental stability of their countries. The forests are valued for their habitats for wildlife, beekeeping, unique natural ecosystems and genetic resources. They are catchments to many rivers that are cornerstones of economic development on the continent. The critical functions of the natural forests in protection of soils and watersheds and the conservation of biological diversity have great economic and social implications in Africa. For example, adequate forest cover is a pre-requisite for sustainable agricultural production systems, wildlife management and tourism in many countries.

There is therefore increasing recognition that forests and agriculture are pivots of the rural economy in Africa. Efforts to eradicate poverty cannot be successful unless the roles of trees and forests in the rural economy are fully promoted. Sustainable livelihood, especially in rural areas, is partly dependent on the judicious management of forest resources. In addition, the natural forest resources are increasingly receiving global attention due to their share in biological diversity, potential for industrial timber exports, capacity for mitigating adverse effects of global climate, livelihood 'safety nets', and as levers for rural development.

Marketing agricultural produce. Photo credits: Charlie Pye-Smith/ICRAF (2014)

There is therefore evidence that there have been many changes in forest management and thinking in Africa and globally, and this has facilitated at least the following developments in Africa:

- Decentralisation and devolution of forest administration and increased emphasis on community participation in forest management.
- Changes in forest administration especially through establishment of more autonomous boards, authorities and commissions.
- Increased role for the private sector in forestry production and processing; this has led to privatisation of public-owned commercial enterprises, including forest industries and plantations in many countries.
- Increasing role of civil society – especially national and international non-governmental organisations - in influencing forest resource management, particularly through their advocacy role and also through direct involvement in forestry initiatives in supporting community participation.
- Increasing political will due to concerns about global changes, especially those stemming from demands that forest also in Africa shall provide global public goods and services, and environmental protection, as reflected in various international arrangements including treaties and conventions (Tieguhong and Nair, 2004).

Even with these changes, much of the African natural forests are not under any form of effective forest administration and management. However, some efforts continue to be made within the continent and outside it that aim at accelerating the pace with which these forests could be managed sustainably. At national level forestry/forest policies and legislation emphasize better management and use of the resources. At sub-regional level, the regional economic communities (RECs) have policies specific to the forestry sector, or policies in the larger environment sector that includes forestry, that also advocate for sustainable management and use of forests. Examples include the "Convergence Plan for the Sustainable Management and Conservation of Forest Ecosystems in West Africa" for ECOWAS countries, the East African Community Forests Management and Protection Act, SADC Protocol on Forestry, and the Convergence Plan of the Central African Forest Commission (COMIFAC). The Great Green Wall of Sahara and Sahel Initiative also targets sound ecosystem management.

At the 23rd Ordinary Session of the African Union Assembly in Malabo, Equatorial Guinea, in June 2014, Heads of State and Government adopted the "Malabo Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods". With regard to the forest sector, the same summit, in its Decision 'Assembly/AU/Dec.538 (XXIII)', directed the AU Commission (AUC) in collaboration with African Ministers responsible for forestry and energy to put in place a Framework for Sustainable Forest Management Programme in Africa. This marked the recognition of the importance of SFM at the highest political and governance levels on the continent.

Globally there are many agreements and initiatives that promote and support the development of SFM in individual countries. There are several key developments and environmental initiatives that come from the three Rio conventions (UNFCCC, UNCCD and CBD), in addition to the UNFF International Arrangement on Forests (IAF) and the SDGs that also target managing forest resources sustainably. One notable initiative or approach is ***forest certification*** which holds good potential as a tool to advance SFM on the continent. The rest of this chapter is devoted to forest certification and how it can be promoted on the continent in ways that can accelerate the pace with which African forests are managed sustainably.

2. Forest certification in Africa: status, achievements, gaps, challenges and opportunities

Over the years, two main policy approaches have been adopted, i.e. '*top down*' and '*bottom up*' approaches, to manage forest resources by relevant stakeholders and authorities world-wide (Naka et al., 2000). In the top-down approach, fundamentals of policies are formulated at higher levels of government and implemented under the authority of the government. The success of these command and control methods heavily depends on the strength of the governing body. The bottom-up approach relies more on a participatory approach where the public agrees on the need for, and forms of, the policy, and implements it through tradition, cooperative agreement or local rule. However, in modern complex societies, common interests binding the members of smaller communities are lacking, which hinders the success of this approach.

Despite the critical importance of forest resources, which has been re-affirmed empirically, and the agreed international plan to implement the "Four Global Objectives on Forests" developed by UNFF, the rate of deforestation is still alarmingly high in many parts of the world, including Africa (Njuki et al., 2004; Teketay, 2004-2005; Kowero et al., 2009; Chidumayo et al., 2011; FAO, 2014). The various top down and bottom up approaches mentioned above have so far not delivered. As a result, forest resources have been faced with different problems over the last several decades, which prevented them from realizing their potential contribution to economic and social development as well as environmental conservation. The most significant include the reduction of forest area and quality, environmental degradation of forest areas, loss of biodiversity, loss of cultural assets and knowledge, loss of livelihoods of forest-dependent people, and climate change.

These forest problems triggered global concern, especially over the last two decades since, as pressures increased on remaining forest areas, conflicts emerged between stakeholders, i.e. those who live in forests, forest industries, governments and the public at large who depend in different ways on the environmental, social and economic benefits provided by forests. In particular, the 1980s witnessed rapid and severe deforestation and forest degradation, with associated negative environmental, social and economic impacts, especially, in tropical countries. Governments tried, but failed, to solve the problems. This opened room for dialogues among concerned stakeholders with the aim of finding a solution to halt or prevent the prevalent deforestation and forest degradation worldwide (Teketay, 2015; Teketay et al., 2016). Past experiences of ineffectiveness and failures of the 'top down' and 'bottom up' approaches have led to the third approach, namely *certification*, which introduced policy changes through ethical trade and commerce rather than central or local power, and uses market acceptance rather than regulatory compliance as an enforcement mechanism (Naka et al., 2000; Vogt et al., 2000; Perera and Vlosky, 2006; Muthoo, 2012; Teketay, 2015; Teketay et al., 2016).

Certification is a procedure by which a third party provides written assurance/market labelling that a product, process or service conforms to specified standards, on the basis of an audit conducted to agreed procedures (Upton and Bass, 1995; Bass et al., 2001; Nussbaum and Simula, 2005). Forest certification (FC) is, therefore, the process of inspecting particular forests or woodlands to see if they are being managed according to an agreed set of standards. It is a soft policy instrument that seeks to use assessments of forest management in relation to a set of predetermined principles and criteria as well as indicators and their means of verification.

Natural stand of Miombo woodland in Zambia. Photo credit: Forest Department Zambia (Government of Zambia)

The verification of legality, chains of custody, ecolabelling, and trademarks are applied to promote the sustainable management, conservation and development of forests in a holistic manner without compromising the rights, resources or requirements of present and future generations (Muthoo, 2012; Teketay, 2015; Teketay et al., 2016). FC also gives consumers a credible guarantee that the product comes from forests in which their management is environmentally responsible, socially beneficial and economically viable (FSC, 1994; Vogt et al., 2000; Meidinger *et al.*, 2002; Muthoo, 2012; Teketay, 2015; Teketay et al., 2016).

To provide consumers with this credible guarantee, two types of certificates are issued, namely *forest management* (FM) and *chain of custody* (CoC) certificates. These certificates relate to the different origins of forest products, stages of production and the subsequent progress of forest products through the value chain. A FM certificate is awarded to forest managers or owners whose management practices meet the requirements of the standards, while a CoC certificate verifies certified material and products along the production chain and applies to manufacturers, processors and traders of certified forest products. In addition to the FM and CoC certificates, a *Controlled Wood* (CW) certificate is issued by the Forest Stewardship Council (FSC), which is designed to allow organizations to avoid the categories of wood considered unacceptable. Also, other types of certificates have emerged for the verification of the legality of timber and timber products from some African countries.

From the foregoing, it is obvious that FC holds great opportunities through its actual and potential contributions discussed in detail elsewhere. It, therefore, can be a pragmatic instrument for harnessing market forces, public opinion and civil society in support of SFM (Muthoo, 2012; Teketay, 2015; Teketay et al., 2016). However, a recent assessment on the status of FC worldwide (FAO, 2014) revealed that the success so far in the promotion of SFM through the implementation of FC varies across countries and continents. For instance, the total area of certified forests and numbers of FM and CoC certificates issued in Africa by FSC and the Programme for Endorsement of Forest Certification (PEFC) Schemes, the only two international forest certification schemes (FCSs) that have made their footprints in Africa, are much lower than in other regions in the world (Teketay, 2015; Teketay et al., 2016; FSC, 2017; PEFC, 2017;), suggesting that the actual contribution of FC to SFM in Africa thus far is

also relatively much lower than in other regions. This indicates that, despite the commendable efforts that have been and are being made to promote and implement FC in Africa (Mbolo, 2014a & b; Kalonga, 2014; Olivier, 2014), its success and contribution to promote SFM have been very limited.

Furthermore, the past and ongoing efforts made to promote FC in Africa, can be characterized as being scattered and uncoordinated. In addition, achievements made so far have not been documented systematically, making the analyses of efforts and achievements made so far, and the identification of gaps, challenges and opportunities associated with the implementation of FC, very difficult.

Therefore, the general objective of the study on which this chapter is based was to assess the status of FC in Africa and identify the associated achievements as well as the requirements to make FC successful in Africa. The specific objectives of the study were to: (i) assess the status of FC and determine the achievements recorded from the various efforts that have been made by different stakeholders to implement FC; (ii) analyze the gaps identified by the different stakeholders, which have limited the success of FC; (iii) identify the challenges encountered during the promotion and implementation of FC; (iv) assess the opportunities associated with FC; and, (v) based on outcomes from specific objectives (i) - (iv), undertake a needs assessment including the necessary actions required to close the gaps, overcome the challenges and exploit the opportunities that can be identified, developed and implemented by relevant stakeholders to make FC more successful in Africa.

3. Materials and Methods

The information and results included in this chapter were synthesized from a report entitled "Forest Certification in Africa" (Teketay, 2015), which was the output of a regional project that had four sub-regional components focusing on FC in central Africa (Mbolo, 2014a), eastern and southern Africa (Kalonga, 2014), northern Africa (Mbolo, 2014b) and western Africa (Olivier, 2014). The synthesis study focused not only on the information and results obtained from the four sub-regional studies, but also considered the general information and results generated from the Africa regional study on FC within and outside Africa that were not dealt with by the sub-regional studies. The figures on areas of forests certified, numbers of FM certificates and numbers of CoC certificates issued by FSC and PEFC were updates up to October and September 2017, respectively (FSC, 2017; PEFC, 2017).

3.1. Study countries

The countries included in the five study components of the regional project were: (i) Cameroon (CAM), Central African Republic (CAR), Democratic Republic of Congo (DRC), Equatorial Guinea (EG), Gabon (GA) and Republic of Congo (ROC) from the central Africa sub-region (Mbolo, 2014a); (ii) all countries from the eastern and southern Africa sub-region, but with detailed information from Kenya, Madagascar, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe (Kalonga, 2014); (iii) Egypt, Morocco and Tunisia from the northern Africa sub-region (Mbolo, 2014b); and, (iv) Benin, Guinea Bissau, Burkina Faso, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo in the western Africa sub-region (Olivier, 2014); and (v) countries within and outside Africa with available general information on FC relevant to the stated objectives of the Africa regional study on FC (Teketay, 2015).

3.2. Methods

To achieve the stated objectives, different methods were employed. These included: (i) synthesizing findings and information from reports of studies carried out on forest certification in the central, eastern and southern, northern and western Africa sub-regions; (ii) reviewing and synthesizing relevant information from: (a) published documents (books, periodicals, manuals, scientific journals, reports, etc.), (b) unpublished documents, (c) websites of forest certification schemes/systems (FCSs), certified forest companies, countries with certified products as well as those active in FC, organizations offering training on FC and those who were/are active in supporting FC in Africa, and, (d) other internet resources; (iii) consultation with experts and authorities responsible for FC and with certified forest companies; and, (iv) assessment of information gathered from the different sources (i-iii above) to identify needs for the successful implementation of FC in Africa.

3.3. Data collection

As much as was feasible, data were collected from the above mentioned sources for each of the four sub-regional studies based on the following pre-prepared topics: (i) status of FC in Africa: (a) FCSs engaged in FC; (b) past and ongoing support provided for FC; (c) availability of fundamental requirements for FC - enabling conditions (appropriate human, financial and physical resources, and technical skills), policy/legislation environment, appropriate institutional arrangements as well as markets and marketing structures/information systems for FC; and, (d) perception and engagement of stakeholders in the development of standards on certification; (ii) achievements recorded from implementation of FC: (a) development of FSSs; (b) types and area of forests certified; (c) types and numbers of forest certificates issued; and, (d) types and numbers of certified forest products and/or services; (iii) gaps identified, (iv) challenges observed during the implementation of FC; (v) opportunities associated with FC; and, (vi) needs identified for the successful implementation of FC in Africa.

3.4. Data analyses

The data collected for each of the studies were collated, compiled, analysed and synthesised. To assess the strength, weaknesses, opportunities and threats of past and ongoing efforts on FC in Africa, SWOT analyses were undertaken. The strength, weaknesses, opportunities and threats identified through the SWOT analyses were included in the available enabling conditions, gaps, opportunities and challenges, respectively. In addition to the SWOT analyses, the actual and potential contributions of FC were identified and analyzed to determine the opportunities that can be realized from the successful implementation of FC in Africa.

4. Results

4.1. Status of Forest Certification

The status of FC in Africa is described through presentation of past and ongoing efforts made and support provided by the various stakeholders and development partners.

Forest Certification Schemes (FCSs)

Two different groups of FCSs, which are promoting and implementing forest certification in Africa, have emerged over the years. The first group promotes FM, CoC and CW (only by FSC) certification. To this group belong the two *international* FCSs, namley FSC and PEFC. In addition, the African Eco-Labelling Mechanism (AEM) is being developed as an African *regional* certification scheme while two Pan-African FCSs affiliated to PEFC, namely Pan-

African Forest Certification (PAFC) Gabon and PAFC Cameroon, are also being developed as *national* FCSs.

The second group promotes the verification of legality of timber and timber products, some in addition to FM, CoC and CW certification. To this group belong Origine et Légalité des Bois (OLB) (Origin and Legality of Timber) developed by Bureau Veritas (BV); Timber Legality and Tracability Verification (TLTV) by Société Générale de Surveillance (SGS), France; Verification of Legal Origin (VLO) and Verification of Legal Compliance (VLC) developed by SmartWood (SW), the Rainforest Alliance's Certification Programme for Forestry; and Forest Law Enforcement Governance and Trade (EU-FLEGT) Action Plan of the European Union (EU) with its two main elements, namely the EU Timber Regulation (EUTR) and Voluntary Partnership Agreements (VPAs) between wood producing countries and the EU. Details of engagement of these FCSs in FC in Africa are presented in the following sections.

Forest Stewardship Council (FSC) is one of the major organizations, which pioneered FC in Africa through promoting certification of various forest types in different countries, recruiting and endorsing FSC National Contact Persons/National Initiatives (NCPs/NIs) to spearhead the process of development of standards and FC in their respective countries, establishing African Regional and Sub-Regional Offices, and building the capacities of countries and stakeholders for responsible forest management (RFM). In addition, FSC has been implementing different projects to familiarize stakeholders, promote and implement FC in the different sub-regions of Africa.

The project implemented by FSC was entitled "*Capacity Building for Sustainable Forest Management and Forest Certification in Africa*" (Boetekees, 2002; Barklund and Teketay, 2004). It was implemented between August 2004 and June 2009, mainly in Cameroon, Gabon, Ghana and Republic of Congo (ROC) through funding from the Danish International Development Agency (DANIDA), the Directorate-General for International Cooperation (DGIS) in Netherlands and Novib (OXFAM-Netherlands). The major achievements of the first FSC project in Africa (Teketay, 2004-2008) are summarized below.

- A legally incorporated FSC Africa Regional Office (FSC-ARO) was established in Ghana with the recruitment of the first FSC Africa Regional Director and a Social Officer (who was based in Yaoundé, Cameroon, to cater for the Congo Basin Countries) as well as bilingual (English and French) Administrative and Finance Officer and Secretary, two security officers and a fully-equipped office.
- Four reports were produced on *"Forest resources, rural communities and prospects of SFM and certification"* in Cameroon, Gabon, Ghana and ROC.
- Several stakeholder training workshops were organized on FC in Cameroon, Côte d'Ivoire, Gabon, Ghana, Kenya, Liberia, Morocco, ROC and Zambia.
- Ten FSC documents, including FSC Principles and Criteria and 18 approved FSC standards, were translated into French and distributed to stakeholders in Francophone Africa.
- 16 FSC NCPs were identified in Burkina Faso, Cameroon, Côte d'Ivoire, Democratic Republic of Congo (DRC), Ethiopia, Gabon, Ghana, Kenya, Morocco, Mozambique, ROC, Senegal, South Africa, Tanzania, Uganda and Zambia, and their applications were processed and endorsed by FSC. FSC-ARO organized the first ever training and meeting of FSC National Initiatives (NIs) in Africa.
- FSC National Offices, furnished with modest office furniture/equipment and modestly funded monthly, were established in Cameroon, Gabon, Ghana and ROC.
- National Working Groups (NWGs) were established in Cameroon, Côte d'Ivoire, Gabon, Ghana, Kenya, Morocco, ROC, South Africa, Tanzania and Zambia to develop national standards and promote FSC FC.

- National forest stewardship standards were developed by NWGs in Cameroon, Côte d'Ivoire, Gabon, Ghana, Kenya, Morocco, Mozambique, ROC, South Africa, Tanzania and Zambia and field-tested by NWGs in Cameroon, Ghana, Morocco and Mozambique.
- The NWG in Ghana and the forest stewardship standard it developed were endorsed by FSC.
- A Sub-Regional Working Group (SRWG) for the Congo Basin, composed of representatives from Cameroon, Central African Republic, DRC, Gabon, ROC and other relevant stakeholders, was established to develop and promote sub-regional forest stewardship standards.
- Draft FSSs for the Congo Basin were developed by comissioning an expert. They were then, discussed and approved, first by the SRWG and subsequently, in April 2012, by FSC as FSC-STD-CB-01-2012-EN Congo Basin Regional Plantations and Natural EN (FSC, 2014b).
- A publication entitled "*Forest certification: a potential tool to promote SFM in Africa"* (Barklund and Teketay, 2004) was prepared for the project "*Lessons Learnt on SFM in Africa*", which was jointly implemented by the Royal Swedish Academy of Agriculture and Forestry (KSLA), African Forest Research Network (AFORNET) at the African Academy of Sciences and FAO.
- FSC-ARO participated in a GEF-supported project entitled "*Improved certification schemes for sustainable tropical forest management*", which involved Cameroon, Brazil and Mexico in 2006. The aim of this project was to develop the tools and incentives to help small forest managers, communities and NTFP collectors in the tropics to identify and protect biodiversity in the forests they manage through certification, while continuing to meet their own management objectives.
- FSC-ARO participated and contributed actively as a member of the "*Regional Expert Group Meeting (REGM) on developing an African Eco-Labelling Scheme*" in 2007.
- FSC-ARO, in partnership with GIZ/GTZ, implemented a Public and Private Sectors Partnership Project in Cameroon (PPP-Cameroon) on "*Adaptation of certification approaches to council forests and other small and medium-sized forest units from permanent estates and improving their access to international market*". The project was instrumental for the development of the Community Small Low Intensity Managed Forest (SLIMF) standard in Cameroon (FSC-STD-CAM-01-2010), which was approved by FSC in December 2010 (FSC, 2014c).
- A website for FSC Africa was designed and uploaded on to FSC website.
- FSC-ARO participated in two sub-regional workshops in 2006, one in Ethiopia and one in Cameroon on "*Lessons and the way forward with SFM in Africa*" organized by the SFM in Africa Project (Phase II) in partnership with AFORNET and KSLA. A presentation on "*Forest certification and FSC Africa*" was made. The workshop was instrumental in brainstorming for the establishment of the *African Forest Forum (AFF)*.
- The number of FSC members in Africa increased from three in 2004 to 130 in 2008.
- FSC-certified forests increased from about 1.9 million ha in six countries in 2004 to about five million ha in eight countries in 2008-2010 (Blaser et al., 2011).

Unfortunately, with the termination of the project funding, FSC-ARO had to be closed down in June 2009, which also happened to coincide with the global economic melt-down. This led to closure of the national offices established with support from the project and discontinuation of the activities initiated in the different countries.

In August 2010, an FSC-ARO was re-opened in Cameroon with an appointment of the second Africa Regional Director (Hakizumwami, 2011). The major achievements following the re-opening of FSC-ARO are summarized below.

- Awareness was created and capacity was built for key actors (auditors, staff members of logging companies and public administration, local NGOs, individual experts, etc.) on FC to promote responsible forestry.
- Market links were created between producers and buyers (countries and individual companies) for FSC certified timber.
- Frameworks of consultation and dialogue on credible FC were established.
- The Congo Basin Sub-Regional Forest Stewardship Standard, mentioned above, was endorsed by FSC.
- The SLIMF standard, mentioned above, was endorsed for Cameroon by FSC.
- Timber legality verification standards were promoted.

The FSC-ARO was closed once again in 2012. However, in 2013, an FSC-ARO was re-opened with the appointment of the third FSC Africa Regional Director, this time, in Johannesburg, South Africa, along with two Sub-Regional Coordination Offices for the Congo Basin and East Africa based in Brazaville, Republic of Congo, and Nairobi, Kenya, respectively. The major achievements following the second re-opening of the FSC-ARO are summarized below (Anonymous, 2015).

- FSC East Africa Roundtable Meetings were held in Uganda (2013) and Tanzania (2014).
- FSC Congo Basin Office provided assistance to the Gabon Government to plan a two-day National Workshop.
- Four national meetings have been held in the Congo Basin with the financial support of the Regional Programme for Central Africa of the World Wildlife Fund (WWF-CARPO). Respective stakeholders from Cameroon, ROC, DRC and Gabon are now engaged in the development of National Standards in compliance with version 5 of FSC's Principles and Criteria, and the final version to come of FSC's International Generic Indicators (IGIs).
- The largest contiguous forest concession in the tropics (1.16 million ha), owned by Industrie Forestière d'Ouesso (IFO) - a subsidiary of hardwood company Danzer in ROC, received the FSC FM and CoC certificates at the end of 2014.

Programme for the Endorsement of Forest Certification (PEFC) Schemes supported the establishment of and endorsed PAFC-Gabon and PAFC-Cameroon under the PEFC endorsement process.. However, there is no forest, product or service certified by PAFC Gabon or PAFC Cameroon as yet.

African Eco-Labelling Mechanism (AEM), with its already developed brand known as Ecomark Africa (EMA), is being developed as an African Regional Certification Scheme initially focusing on four priority sectors, namely Agriculture, Fisheries, Forestry and Tourism (Teketay, 2012a & b; UNEP, 2008). The steps and process involved in the evolution of AEM are summarized below:

- The Johannesburg Plan of Implementation that was endorsed by the World Summit on Sustainable Development in 2002 encouraged the development of consumer information tools such as eco-labels.
- The African 10 Year Framework Programme (10-YFP) on sustainable consumption and production (SCP) has been developed as part of the regional follow-up to the Johannesburg Plan of Implementation.
- The 10-YFP was approved by the African Ministerial Conference on the Environment (AMCEN) and its implementation was officially launched in 2006.
- As one of the five priority areas of the 10-YFP, the African Roundtable on Sustainable Consumption and Production (ARSCP), in cooperation with UNEP, identified the development of a continent-wide and cross-sectoral eco-labelling scheme, the African Eco-Labelling Mechanism (AEM), with its brand as Eco Mark Africa (EMA).
- The concept and architecture of AEM was further advanced by African experts and supported by the Marrakech Task Force on Cooperation with Africa, which was facilitated and funded by the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU).
- This consultation phase was implemented in close cooperation with the Trade and Industry Department of AUC, the African Organization for Standardization (ARSO), UNEP, UNIDO, the UN Economic Commission for Africa (UNECA), and the Regional Economic Communities (RECs) in Africa.
- In 2006 and 2007, a comprehensive regional assessment was conducted on existing eco-labelling initiatives in the region with the purpose of building upon what is already existing in the region and learning from existing initiatives (Janisch, 2007).
- Organized in collaboration with AUC and UNECA, the first Regional Expert Meeting on Eco-Labelling in Africa was convened in June 2007. Representatives of the Consumers Information Network (CIN), the South African Cleaner Production Center, FSC, the African Organic Farming Foundation,IUCN, Clongen Laboratories, the NEPAD Secretariat, the Agro Eco Uganda Branch

and UNEP reviewed the outcome of the regional assessment and made recommendations on how to develop the regional eco-labelling mechanism.

- Consultations were held through the Regional Working Group on Eco-Labelling. The summary outcome of the assessment and the regional meeting was printed as a booklet and distributed to different forums as a basis for consultation with the aim of ensuring the political buy-in from the relevant inter-governmental institutions and forums, including AUC, the African Committee on Sustainable Development (ACSD) and ARSO.
- The 5th African Roundtable on Sustainable Consumption and Production (ARSCP-5) called for a continued political commitment for the effective implementation of the programme. As a follow-up to the Regional Expert Meeting and the consultation processes, a preliminary paper on the *'Structure and Function of an AEM*' was prepared in 2007. Facilitated by UNEP, the paper was further developed and finally endorsed as the *Strategy Document of the AEM*.
- In 2009, the Executive Board of AEM was formed (see point 1 beloiw).
- Through a consultative process, AEM's eco-label, named Eco Mark Africa (EMA), was developed, and through its EMA label, the AEM aims at promoting intra-African and international trade and enabling African economies to adapt and contribute to the mitigation of climate change.
- The AEM has developed sustainability standards, through consultative processes, for recognizing and branding sustainably produced African products and services from agriculture, fisheries, forestry and tourism, which have been selected on the basis of their economic importance for Africa as well as their contribution to global greenhouse gas (GHG) emissions. The four standards have been endorsed by the Executive Board of AEM in 2013 (AEM, 2014). At a later stage, the scope of the AEM shall be expanded to additional sectors.
- The organizational structure of AEM builds on existing capacities and structures within the region in order to effectively respond to African needs and priorities within the context of global trade and environment regimes. It includes:

    1. an Executive Board composed of AUC (Chairperson), ARSO, ARSCP, eight RECs, African Business Community (ABC), Consumer International (CI), UNECA, UNEP, UNIDO and BMU/GIZ, as well as the Executive Manager of AEM (Secretary).
    2. a Technical Board composed of representatives of ARSO (Chairperson), ARSCP, Chairs of the four Sector Working Groups and three relevant technical institutions, including AFF (responsible, mainly, for the evaluation of the conformity assessment of producers and the equivalence assessment of standards systems submitting to the EMA benchmarking process);
    3. AEM Secretariat based in Nairobi, Kenya (operative body of the AEM, coordinating the development and revision of standards, steering marketing and capacity building activities, acquiring political support, promoting certification, label management and service provision, etc.); and,
    4. four Sectoral Technical Working Groups, one each for the agriculture, fisheries, forestry and tourism priority sectors (responsible for spearheading the development, field testing and getting the AEM standards approved) and a Marketing Panel (responsible for developing and assisting in the promotion of the AEM marketing strategy).

- AEM is currently being elaborated with regard to the types of certificates to be issued as well as its accreditation programme and steps required for certification. No forest has been certified through the AEM FCS as yet.

Pan-African Forest Certification (PAFC) Gabon is a Pan-African national FCS, which has already been endorsed by PEFC. A brief summary of its development is presented below:

- The process of development of PAFC Gabon as PEFC-affiliated national FCS started in the mid-1990s (TERRA, 2008).
- In 2004, a workshop entitled "PAFC Gabon, the opportunity for world promotion of the Pan-Africa certification and ATO/ITTO Principles, Criteria and Indicators (PCIs)" was held in Libreville. This workshop opened the way for the creation and institutionalization of an associate structure called "*PAFC Gabon***"** destined to be the Gabonese instrument of support for the national certification PAFC Gabon.

- PAFC Gabon is designated "*Pan-African Forest Certification Association of Gabon*", and its bylaws were submitted to the Gabonese Interior and Decentralization Minister in December 2004.
- Different experts worked during the course of 2005 on the expansion of a technical document defining the rules and procedures of PAFC certification in Gabon. This document, called "*The Gabonese Scheme for Forest Certification*" was submitted to the PAFC General Assembly for advice and approval in June 2005. The Scheme was then validated during the national workshop, which took place in 2006 in Libreville, reuniting all stakeholders in SFM and the protection of the environment.
- In October 2004, PAFC Gabon submitted its candidature to become the Gabonese member of the PEFC Council. It was accepted following the General Assembly of the PEFC Council in Chile (October 2004).
- This international recognition of PAFC Gabon by the PEFC was in accordance with the wishes of the Ministers of the ATO. The recognition process by the PEFC Council began in April 2006.
- Form International, a consultancy firm, was appointed by the PEFC Council and assessed the Gabonese FCS. They produced a report in 2007 listing the main points that needed to be corrected in the scheme.
- The PAFC Gabon General Assemblies held in April and September 2008 ratified the changes to the Gabonese FCS so that it fully complies with the requirements of the PEFC Council.
- PAFC Gabon joined PEFC in 2004, and in April 2009, its scheme became the first in Africa to meet PEFC's sustainability benchmark requirements (PEFC, 2015a, b). Based on the requirements of PEFC, PAFC Gabon has been re-endorsed by PEFC in November 2014, which is valid until November 2019.
- Though more than 10 years have elapsed since its endorsement, no forest has been certified through the PAFC Gabon FCS as yet.

Pan-African Forest Certification (PAFC) Cameroon is the second Pan-African PEFC-affiliated national FCSs, which was created in October 2007. PAFC Cameroon (Cameroonian Association of the Pan-African Forestry Certification) is currently in the process of developing its FCS and aims to develop, promote and implement FCS adapted for Cameroon based on the ATO-ITTO PCIs.

Organizations verifying legality of timber and timber products.

Different organizations are engaged in verifying the legality of timber and timber products originating in central and western Africa sub-regions. Engagements of these organizations are presented briefly below.

Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan was developed by EU in 2003, which provides a number of measures to exclude illegal timber from markets, improve the supply of legal timber and increase the demand for wood products from legal sources. The two main elements of this action plan are the *EU Timber Regulation (EUTR)* and *Voluntary Partnership Agreements (VPAs)* between wood producing countries and the EU. Since then:

- Cameroon started the negotiation of the VPA with the EU in 2003. It was signed and ratified in 2010 and 2011. Cameroon is developing the systems needed to control, verify and license legal timber.
- Central African Republic signed the VPA with the EU, and is developing the systems needed to control, verify and license legal timber. It will use these systems for timber and timber products exported not only to the EU, but also to other destinations worldwide.
- DRC and Gabon are negotiating their VPAs with the EU.
- ROC has ratified a VPA with the EU, and is developing the systems needed to control, verify and license legal timber. It will use these systems to cover timber and timber products exported not only to the EU, but also to other destinations worldwide. The systems will also apply to timber and timber products sold within the country.

Legal Verification System of Bureau Veritas (BV) has developed the OLB system, an international system based on a complete and strict legality requirement for traceability adapted to forest enterprises and simple and effective wood tracking CoC, to heed client requests for an official and third-party certification on the legality of their timber. This is an exclusive service of certification by BV. OLB is based on a certificate for operators/forest managers and a certificate of CoC for industrialists and traders. The legality certificate is based on compliance with the certification standard by forest companies. This document presents the provisions to meet compliance with the laws regarding the management and exploitation of wood, employment and security of persons, and respect for the environment. It also addresses the issue of traceability of the wood in the company until the sale or primary processing. The certification of companies processing and trading wood is based on the CoC standard. This document presents the provisions to meet the right to use the OLB mark on products of companies. BV has certified a total area of 628,212 ha of natural forests in two companies in Côte d'Ivoire through its OLB system.

SGS Timber-Traceability-and-Legality Verification System (TTLV) was developed to improve traceability and forest management with technology. Using technology to trace the movement of timber and monitor financial flow has transformed transparency in the forest sector. Ensuring efficient control on timber movements guarantees the legality of exported or locally distributed timber, and enhanced traceability ensures that the supply chain data is 100% accurate from the forest to the point of export. By using technology to enhance forest management, timber can be traced, tracked and eventually certified. The significant presence of SGS in the global forest sector gives it insight into how regular auditing, continuous monitoring and independent verification of a company's wood production can enhance supply chains and sustainability.

VLO and VLC of the Rainforest Alliance (RA) SmartWood (SW). The Rainforest Alliance (RA) has developed standards and procedures for independent third-party verification that wood has been harvested and/or traded legally. RA's standards verify the legality of the wood at the forest level and ensure the traceability of legal timber at all points in the supply chain (CoC). RA offers forest product companies voluntary independent third-party verification of legal status for the sources of raw material used in their products. It originally developed its legality verification programme as a progressive, two-tiered system in which companies began with Verification of Legal Origin (VLO) and moved to Verification of Legal Compliance (VLC). VLO verifies that timber comes from a source that the harvester has a documented legal right to harvest, pursuant to the laws and regulations of the government of the jurisdiction. Suppliers of VLO timber must follow and maintain documented CoC systems. VLC ensures that the administrative requirements of permitting, planning, taxes or fees, and harvesting, as well as a broad range of applicable and relevant laws and regulations related to forestry have been met. The difference between "legal origin" and "legal compliance" is important. Legal origin verification signifies that a company has met the administrative requirements of permitting, planning, taxes or fees, and harvesting in defined areas only. Legal compliance encompasses a broad range of laws on environmental protection, wildlife, water and soil conservation, harvesting codes and practices, worker health and safety, and fairness to communities.

Certification Bodies (CBs) engaged in Forest Certification. The following CBs have been engaged in FC in Africa: (i) BV (both FSC- and PEFC-accredited); (ii) Scientific Certification Systems (SCS) - doing business as SCS Global Services (both FSC- and PEFC-accredited); (iii) SW (FSC-accredited); (iv) SGS (both FSC- and PEFC-accredited); (v) Quality Assurance Training (QAT) (PEFC-accredited); and, (vi) Woodmark Soil Association (WSA) (both FSC- and PEFC-certified).

Support provded for Forest Certification in Africa.

In table 1 below, past and ongoing support for FC in Africa is listed. Such support include capacity building/training, standard development and funding

Table 1. Types of support for FC in Africa and their spread among institutions

Institutions*	Support		
	Capacity Building/Training	Standard Development	Funding
FSC	✓	✓	✓
SSC – Forestry	✓	-	-
AB Training/CMO	✓	-	-
Bureau Veritas (BV)	✓	✓	-
Smartwood (SW)	✓	-	-
CES	✓	✓	-
BWWI	✓	-	-
GIZ and IAC	✓	-	-
COMIFAC	✓	-	-
FSC and GTZ	✓	-	-
HCEFLCD, SDA, WWF, UNDP and USA PC	✓	-	-
GCDF	✓	-	-
ATO and ITTO	-	✓	-
ATO, ITTO and CIFOR	-	✓	-
FSC, GTZ and UNDP	-	✓	-
WWF	-	-	✓
FSC Denmark	-	-	✓
COMIFAC and FSC	-	-	✓
ECOFORAF	-	-	✓
BMU			

* FSC = Forest Stewardship Council; SSC-Forestry = Svensk SkogsCertifiering AB; CMO = Center for the Modernization of Operations; CES = Centre d'Excellence Sociale; BWWI = Building and Wood Workers International; GTZ = Gesellschaft für Internationale Zusammenarbeit; IAC = International Agricultural Center; COMIFAC = Commission des Forêts d'Afrique Centrale; HCEFLCD = Haut Commissariat aux Eaux et Forêts et à la Lutte contre la Désertification; SDA = Social Development Agency; WWF = World Wide Fund for Nature; UNDP = United Nations Development Programme (UNDP); USA PC = US Peace Corps; GCDF = Group Chèque Déjeuner France; ATO = African Timber Organization; ITTO = International Timber Trade Organization; CIFOR = Center for International Forestry Research; ECOFORAF = Support for Ecocertification of Forest Concessions in Central Africa; ✓ = Yes; - = No information (source: Teketay, 2015).

Availability of fundamental requirements for Forest Certification

The successful promotion and implementation of RFM at the country level in Africa, through FC as a market tool, entails the availability and accessibility of fundamental requirements, the major ones being enabling conditions, such as adequate human, financial and physical resources, technical capability/skills and marketing structures/information systems for certified forest products/services as well as enabling policy/legislation environment and appropriate institutional arrangements. The spread of these fundamental requirements for FC in Africa is summarized below.

Enabling conditions. The major bottleneck in the promotion and implementation of FC in Africa is either the inadequacy or the complete lack of the enabling conditions for FC mentioned above. For instance, the enabling capacities required to implement FC effectively and efficiently, i.e. sufficient human, financial and physical resources, and technical capability/skills, by the various actors engaged along the entire value chain of the forest sector, are very far from being adequate. Nevertheless, some encouraging conditions exist on the ground while promising initiatives are emerging in the different sub-regions of Africa as summarized below:

- FC is an internationally recognised, independently verified procedure for ensuring that forests are sustainably managed, social issues are adequately considered, benefits are equitably shared and forest ecosystem services are not compromised.
- Availability of price premiums for some certified forest products.
- The existence of certified forests and products from Africa (see details under Achievements below) provides concrete evidence that FC and RFM/SFM can be realities and accomplished successfully in Africa. This can be considered as a capacity as it can increase confidence in stakeholders, thereby, moving FC and RFM/SFM forward..
- Signature of VPA by some countries with the EU is creating favorable conditions for FC.
- Though still very few, the national and sub-regional FSSs (see details under Achievements below) , which have been developed in a few countries in Africa and endorsed by FSC, PEFC and AEM, form capacities that could be scaled-up and -out to promote credible FC and RFM/SFM.
- The increasing political will of governments, e.g. in the Central African Sub-Region (CASR), which own all the forests, for FC as well as the efforts being made by ATO/ITTO, COMIFAC and bilateral cooperation, the Conference of the Ecosystems of the Dense Humid Forests of Central Africa (CEFDHAC) and the Programme Sectoriel Forêts Environnement (PSFE) specific to Cameroon, to promote and support FC and RFM/SFM.
- Though not adequate, the presence of policy and legal frameworks that support FC.
- Increased revenue to governments as more taxes are paid due to good forest governance as a result of FC.
- Though not adequate as yet, the presence and operations of FSC Africa Regional and Sub-Regional Offices, in Johannesburg and Brazaville, respectively, FSC National Representative and Focal Point in ROC and Uganda, respectively, National Offices of PAFC in Gabon and Cameroon as well as several NWGs affiliated to FSC, PEFC, ATO/ITTO in different African countries, are emerging capacities, which are and will be very instrumental to accelerating the process of FC and RFM/SFM in the continent.
- Existence of awareness of FC and well-trained staff in the forest sector in some countries.
- Although the exact number is not well known, there are experts trained in forest certification, including for auditing/assessment of forest resources for certification, in several countries.
- The Réseau des Institutions de Formation Forestière et Environnementale d'Afrique Centrale (RIFFEAC) made up of all institutions providing training in forestry and environmental issues is a good example to cultivate the human resources required to promote FC and RFM/SFM in CASR. RIFFEAC is a group of twenty-one training institutions in CASR, which aims at developing the skills and the necessary structures for joint and sustainable management of environmental and forest resources.
- The Professional Masters Programme on Forest Certification and Auditing developed by the Department of Plant Biology, Faculty of Science, the University of Yaounde I in Cameroon since 2005 has been instrumental in producing professionals to promote FC.
- Though few, a number of short-term training programmes have been and are being implemented to increase the number of qualified professionals in FC, including FM certification auditors. Examples are training programmes implemented by FSC, SSC-Forestry, AB Training/CMO, SW, BV and CES.
- Increasing development of policy tools and institutional frameworks for the promotion of SFM in northern Africa sub-region (NASR).
- Establishment of a NWG in Morocco affiliated to FSC in 2008 after a large public consultation and a final election of its members. Although it has not been endorsed by FSC, its members have received training on FC by the first FSC African Regional Office and could be used as experts to spread the process in the NASR.
- Availability of legal civil society organisations, such as Associação pela Gestão Responsável das Florestas em Moçambique (AGREF) and Tanzania Association for Forest Management and Products (TAFMP).
- Expansion of existing markets and the creation of many new European markets for North African forest products, including markets for caps and construction equipment made up of cork, according to the growing demand from industrialized countries. This has resulted in the attractiveness of the investment partners and financing of forest projects by potential donors. The flow of forest products from NASR to these markets requires international recognition of RFM, therefore, FC.

- FC is being used by governments in Africa, e.g. Cameroon, as a communication tool to demonstrate progress towards SFM.
- Government institutions are becoming increasingly open to the involvement of civil society in forest management and monitoring.
- Capital investment by private companies for SFM is increasing, and there is increasing interest in FC by a number of major logging companies.
- Donor agencies interested in the forest sector are considering FC as a positive tool for the promotion of SFM.
- Increased awareness in the domestic markets, mainly in South Africa and Uganda, for forest products originating from well-managed forests.
- Foresters have started to see FC as a useful management tool that can guide them in their day-to-day operations, i.e. FC provides foresters with a way of measuring performance of their own activities, with the reward being a certificate to prove that they are maintaining sustainable levels of forest management.
- In Mali, for example, the actors in the mining sector have become aware of the damage caused to the environment by the exercise of their business and are committed to change or modify their practices and significantly contribute to the rehabilitation of damaged sites; this committment had been taken during the awareness workshop on SFM in the country in which they participated.
- Involvement of other economic sectors (agriculture, mining, infrastructure, etc.) during the process of developing standards for SFM or FC in Côte d'Ivoire has led to the awareness of the stakeholders for the development of standards for sustainable agriculture.
- National ATO/ITTO standards/PCIs and audit manual for SFM of African natural forests strengthen forest policies and legislation in ATO/ITTO member countries and form a good bases to help companies make decision on FC.

Enabling policy/legislation environment. Many countries in Africa have mentioned sustain- able development and SFM in their constitutions and/or environmental/forest policies/ legisla-tion without making any specific reference to FC, while others, e.g. Namibia, Uganda and South Africa, have made reference to FC as a tool to promote SFM in their policies, strategies, programmes, etc.

Wood harvest in the evergreen forest of Ghana.
Photo Credit: Enoch Gbénato Achigan-Dako

According to the recent report on "*State of the World's Forests*" (FAO, 2014):

- all countries, including in Africa, that have revised their national forest programmes (NFPs) or forest policies since 2007 have included SFM as a policy goal;
- since 2007, at least 37 countries worldwide, 10 of which are African, have passed and promoted new policies promoting SFM and aiming at socioeconomic development,;
- at least six countries, one from Africa, have reported having further elaborated criteria and indicators as a way of operationalizing SFM, supporting policy development, monitoring and reporting;
- by 2013, Cameroon, CAR, Ghana, Liberia and ROC were implementing a VPA; and,
- Côte d'Ivoire and Uganda have begun incorporating legality assurance system elements, such as tracking and verification in their NFPs or policies.

Despite the above encouraging initiatives and efforts, the policy/legislation environment in many African countries remains largely unconducive for implementing FC and RFM/SFM

Appropriate institutional arrangements. Apart from the official representation of the FCSs and the encouraging initiatives taken to establish NWGs on FC in some countries discussed above, there are no institutional arrangements put in place to cater specifically for FC by countries in Africa. Exceptions are Ghana and Liberia, which have been reported as putting effort in improving their organizational frameworks and information systems to track legally harvested timber through value-added chains and improved market transparency (FAO, 2014).

Markets and market structures/information systems. Apart from the web-based market information provided by FSC and PEFC, there are no adequate African market structures/ information systems for certified forest products/services originating from all the sub-regions in Africa that can inform producers and consumer groups of the economic, environmental and social benefits that FC brings. In the international markets, where certified forest products have reliable markets, there are still limited marketing information systems linking the forest owners/operators and primary producers and the traders in these markets. Despite several calls for separate production and trade data on certified products, consistent information on markets for certified products is still inadequately available worldwide, particularly for Africa.

There are potential prospects of local/national, sub-regional, regional and international markets. Stakeholders are willing to buy timber from certified forests. Despite the fact that some big companies, government ministries, departments or agencies indicated that they were willing to buy their timber from certified forests, more awareness raising about certified forest products is still needed. In addition, some of the stakeholders in the construction and furniture industries indicated that it is difficult to state the extent to which they would procure timber from certified forests, and that their decisions would depend on the market dynamics. This means that there are training and promotional needs to forest products consumer groups on the value of certified forest products so that they influence the market accordingly by changing their preference.

Perception and engagement of stakeholders on Forest Certification

Central and Western Africa Sub-Regions. In the 1990s, driven by environmental NGOs, e.g. WWF, GreenPeace, Friends of the Earth, Fern, etc., that were promoting the boycott of tropical timber in general and African timber in particular in the international markets, FC was perceived by governments in the central and western Africa sub-regions as a process aimed, ultimately, at boycotting African timber and to be under the domination of those activist environmental NGOs. However, after the Brazzaville conference held in 2005, FC is now perceived as a tool to: (i) enhance SFM by obliging forest companies to respect laws and regulations in force, so giving advantage to the governments in the monitoring of this aspect of SFM; (ii) communicate worldwide efforts made by governments towards sustainable forestry and conservation of biodiversity; and, (iii) sell timber in international markets. Currently, the governments of Cameroon and ROC are implementing the accreditation of private FC schemes to enable forest enterprises to access the EU market by respecting the EUTR. However, some governments are still complaining that FC is too much driven by European and International NGOs while others do not show any interest.

Similar to the initial attitude of governments, forest companies perceived FC as a means used to boycott tropical and African timber in the international markets. However, nowadays, some realise that FC enables them to keep their customers, access new market niches or credits, and communicate their progress towards sustainable/responsible forestry. However, all of them find the costs of FC to be exorbitant, especially the implementation of social issues, e.g. construction of roads, schools, hospitals and support to local communities required as part of their corporate social responsibilities implicit with FC. Forest companies also consider FSC's FSSs and certification procedures as being too complex and, hence, difficult to implement.

Likewise, forest workers and trade unions initially perceived FC as a process leading to more work for forest workers to enable the forest companies increase their profits through the sale of their certified products without sharing the benefits with their workers. However, currently, they consider FC, mainly FSC certification, as "a saviour", i.e. a tool that enhances the well-being of the forest worker, and a process that obliges the forest companies to respect the labour code and apply the conventions of the International Labour Organization (ILO) in the forest sector.

Decidious forest in Northern Benin. Photo © AFF

For civil society, FC is the only efficient tool that will ensure sustainable management of tropical forests in general and African forests in particular. Their reasons for supporting and promoting FC are many, i.e.: (i) reducing illegal logging; (ii) reducing corruption in the forest sector; (iii) enabling the effective participation of local communities and indigenous people in forest management; (iv) enabling the sharing of benefits from SFM; (v) enabling the respect of laws and regulations in force by forest companies; and, (vi) introduction of transparency in the forest sector. Still, civil societies feel that FC is being undermined by CBs biased towards increasing their own benefits rather than enhancing the credible assessment of RFM/SFM.

For the CBs, FC is a tool that will enhance the responsible management of tropical forests in general and African forests in particular. Nevertheless, they reported that the standards of FSC or PEFC are too complex and become more complex every day. The standards comprise too many complex concepts that lead to increased costs of FC in their implementation.

In terms of the engagement of stakeholders in FC, as part of the development of the FSC national standard by the NWG in Ghana, the government was very active. Traditional chiefs also played a leading role in view of their impact on land tenure and property of the country. A particular opening was made for women to boost their participation in the process. In Côte d'Ivoire, where the process of developing the national FSC standard was initiated, the involvement of various stakeholders, including the government was significant. For the development of standards, both for the FSC and ITTO, the government and other stakeholders have taken a very active part. This was accomplished through the multi-stakeholder-based NWGs in which all stakeholders were engaged.

With regard to the development of ATO/ITTO standards, the process begins with the creation or activation of a NWG in each country through a strong awareness creation and mapping of stakeholders involved in forest management. A stakeholder workshop is organized to inform the different actors of the initiation of the process. From this moment, the parties choose their representatives to serve in the NWG. Once the NWG is in place, it starts the process of developing such standards.

Eastern and Southern Africa Sub-Region. Stakeholders and governments in the E/S Africa sub-regions are involved and/or plan to implement SFM practices to: (i) manage their forests sustainably and, hence, contribute to improvement of the economic returns of their forests and the livelihoods of the communities; (ii) market forest products to increase sales and prices of these products; (iii) instill good governance, which aims at stopping corruption and promoting public awareness about the need for SFM; (iv) promote self-esteem, as part of those contributing to forest conservation efforts and promoting corporate social responsibility; and, (v) access green loans and financial mechanisms, through international networks with financial institutions like the World Bank and, hence, increase the chances of attracting operational funds for SFM, through employing FC as a management tool. These responses indicated that there is a positive perception towards FC in the sub-regions, and that FC provides various advantages that attract or would attract more participation of stakeholders and governments in the sub-regions. Nevertheless, despite the fact that FC gives assurance that forest management activities are environmentally appropriate, socially beneficial and economically viable, the stakeholders did not appreciate the voluntary regulatory role FC has in contributing to responsible management of forest resources.

Governments have been and continue to be involved in the FC processes, including the development of standards informally through instituting policy and legal frameworks, which create enabling environments for FC adoption. Moreover, as stated above, Namibia, South Africa and Uganda have formally recognised FC as a tool for SFM in their legal frameworks. Stakeholders' identification and analyses processes have been in place in Kenya, South Africa, Mozambique, Tanzania and Uganda. The engagement process brought together, and continues to bring together, interested and affected parties from respective governments, private sectors, civil society and community-based organisations into the development of FSSs and FC. Collectively, they nominate people to stand on their behalf for the FC standards development process.

Northern Africa Sub-Region. In NASR, stakeholders believe that FC is a tool useful for the improvement of forest planning and management, providing a transparent and credible dialogue between all interested parties in the public and private sectors, both nationally and locally. In this sub-region, mainly in Morocco, the contributions and commitment of these various stakeholders, including the Government, in the development of FC and standards are identified in terms of:

- initiation of multi-actor partnerships for reflection and development of participative management, multi-functional and self-financing models for the forests of the Middle Atlas, focusing on continuity, good governance and monitoring of certification approaches in the management of forest areas;
- facilitation and funding from international organizations for the development of pilot FSC certification initiatives in the countries;
- consultation and participation of local stakeholders and partners in the development and revision process of national standards, affiliated to FSC; in Morocco [mapping of stakeholders, development of national standards, establishment of FC structure (NWG) and governance mechanisms and field testing of standards];
- technical support to the NWG in the national standards development process;
- political support of the Government in the process of initiation, development and evaluation of the national standard;
- technical support of national, sub-regional and international expertise for the development of the national standards;
- scientific research to determine the potential social and environmental impacts of FSC certification; and,
- communication and information on the FC process.

4.2. Achievements recorded in the implementation of Forest Certification

The major achievements recorded in the implementation of FC in Africa include the development and endorsement of FSSs, and the recording of types and area of forests certified, numbers of FM and CoC certificates issued and types of certified forest products.

Development and endorsement of Forest Stewardship Standards (FSSs)
The following national FSSs have been developed in Africa and endorsed by FSC (FSC, 2014c):

- Cameroon (FSC-STD-CAM-01-2012: Natural and Plantations) - follows the requirements of FSC-STD-60-002 "Structure and content of forest stewardship standards" to improve consistency and transparency in certification decisions between different CBs in the Congo Basin region and thereby to enhance the credibility of the FSC certification scheme in the region as a whole.
- Cameroon (FSC-STD-CAM-01-2010, SLIMF) - covers diversified vegetation types and ecosystems, including forests, savannas and steppes, distributed throughout the country.
- Central African Republic (CAR) (FSC-STD-CAR-01-2012, Natural and Plantations) - follows the requirements of FSC-STD-60-002 "Structure and content of forest stewardship standards" to improve consistency and transparency in certification decisions between different CBs in the Congo Basin region and thereby to enhance the credibility of the FSC certification scheme in the region as a whole.
- Democratic Republic of Congo (DRC) (FSC-STD-DRC-01-2012: Natural and Plantations) - applicable to all forest operations seeking FSC certification within the Congo Basin. The standard applies to the management of natural forests and plantations, managed by large forest enterprises for timber production. Specific indicators for each of the above forest types will be adapted at national level. The standard also takes into account small and low intensity managed operation (Community forests and NTFP management) in the Congo Basin region. These shall meet the international definition of SLIMF in order to qualify to use these indicators.
- Gabon (FSC-STD-GAB-01-2012: Natural and Plantations) - applicable to all forest operations seeking FSC certification within the Congo Basin. The standard applies to the management of natural forests and plantations, managed by large forest enterprises for timber production. Specific indicators for each of the above forest types will be adapted at national level. The standard also takes into account small and low intensity managed operation (Community forests and NTFP management) in the Congo Basin region. These shall meet the international definition of SLIMF in order to qualify to use these indicators.
- Republic of Congo (ROC) (FSC-STD-ROC-01-2012: Natural and Plantations) - sets out the required elements against which FSC accredited CBs shall evaluate FM practices within ROC.
- Ghana (FSC-STD-GHA-01-2012, Natural and Plantations) - follows the requirements of FSC-STD-20-002 Structure and content of forest stewardship standards (November 2004) to improve consistency and transparency in certification decisions between different certification bodies in Ghana and in different parts of the world, and thereby to enhance the credibility of the FSC certification scheme as a whole.

One among other major achievements of FSC in Africa is the *very first regional FSS in the history of FSC* (FSC, 2014b) (FSC-STD-CB-01-2012, Sub-Regional Standard), that was approved in 2012 for countries in the Congo Basin, namely Cameroon, CAR, DRC, ROC, Equatorial Guinea and Gabon. As indicated above, the AEM has also developed a pan-African FSS (ARS AES 3-2014 Forestry - Sustainability and Eco-Labelling - Requirements), which has been approved by the AEM Executive Board in 2013. PAFC Gabon has also developed a national PEFC-endorsed standard for FM and CoC certification.

Types and area of forest certified
So far, forests in Africa have been certified with FM certificates through only the FSC FCS. The types of certified forests in Africa include natural as well as semi-natural forests, exotic hard and soft-wood plantations, and miombo woodlands/forests (community natural forests).

Table 2. Global FSC-certified forest areas by region

Region	No. of Countries	Forest Management Certificates				Chain of Custody Cerificates		
		Area Certified (1000 ha)	% of Total Area	No. of Certificates	% of Total No. of Certificates	No. of Coun-tries	No. of Certi-ficates	% of Total No. of Certificates
Africa	12	7,685	3.9	51	3.4	18	194	0.6
Asia	13	8,471	4.3	231	15.3	29	10,019	30.3
Europe	32	94,389	48.2	686	45.3	41	17,466	52.7
S. America/Caribbean	19	13,592	6.9	259	17.1	24	1,485	4.5
North America	3	68,947	35.2	246	16.3	3	3,537	10.7
Oceania	5	2,665	1.4	41	2.7	5	419	1.3
Total	**84**	**195,749**	**100.00**	**1,514**	**100**	**120**	**33,120**	**100**

Source: FSC (2017).

As of October 2017, the total area of forests certified by FSC in Africa was c. 7.7 million ha, representing only 3.9% of the total area of FSC-certified forests worldwide of c. 195.7 million ha in 12 countries (14.3% of all countries with FSC-certified forests worldwide) (Tables 2 & 3) (FSC, 2017) and 2.5% of the total area of PEFC-certified forests worldwide of c. 304.2 million ha (Table 4) (PEFC, 2017). The area of certified forests (with FM certification) in Africa represent only 1.5% of the total area of forests certified worldwide by both FSC and PEFC (c. 500 million ha), the two FCSs that have their footprints in Africa. Within Africa, ROC (32.3%), Gabon (26.6%) and South Africa (18.4%) had the three largest areas of FSC-certified forests while Madagascar (0.02%) had the lowest area of FSC-certified forests (Table 3). In terms of numbers of certificates, South Africa had the highest (20 = 39.2%) while Madagascar and Sierra Leone had the lowest (one each = 0.02%) numbers of FSC FM certificates in Africa.

The only FSC-certified operations in WASR are those in Ghana, and the types of forest certified were a teak plantation and natural forest covering 1,675 and 1,298 ha, respectively. In addition, BV has certified a total area of 628,212 ha of natural forests through its OLB system in Cameroon. The legality of a total of 2,115,231 ha of forests has been verified through the OLB system of BV in Cameroon so far. In Gabon, 832,305 ha of forests have been verified through the OLB system of BV up to 2013. As no certificate was renewed, the trend of OLB certification in Gabon has been rather downwards. In 2013, the VLC certificate had been issued to six forest companies in Cameroon covering a total area of 685,351 ha. A single eucalypt plantation of 20,270 ha has been FSC-certified with FM certificate in 2008 in Morocco. This certificate has not been renewed, and since then, no more forest area has been certified by FSC or PEFC in the NASR.

Table 3. FSC-certified forest areas and numbers of forest management (FM) certificates in Africa

Country	Area Certified (ha)		Number of FM Certificates	
	Total (1000 ha)	Proportion (%)	Total	Proportion (%)
Cameroon	1,130	14.7	4	7.9
Gabon	2,043	26.6	3	5.9
Ghana	11,5	0.2	2	3.9
Madagascar	1,3	0.02	1	2.0
Mozambique	50,8	0.7	2	3.9
Namibia	231	3.0	5	9.8
Republic of Congo	2,479	32.3	4	7.8

Sierra Leone	3,1	0.04	1	2.0
South Africa	1,417	18.4	20	39.2
Swaziland	124	1.6	4	7.8
Tanzania	154	2.0	2	3.9
Uganda	40,9	0.5	3	5.9
Total	**7,685**	**100**	**51**	**100**

Source: FSC (2017).

Numbers of certificates issued

Up to October 2017, the total number of FM certificates issued in Africa by FSC was 51 (3.4% of total FM certificates issued by FSC worldwide), in 12 countries (14.3% of all countries with FSC FM certificates worldwide) (Tables 2 & 3) (FSC, 2017). The total number of CoC certificates issued in Africa by FSC was 194 (0.6% of total CoC certificates issued by FSC worldwide), in 18 countries (15% of all countries with FSC CoC certificates worldwide) (Tables 2 & 5) (FSC, 2017). Within Africa, South Africa (58.8%), Egypt (13.9%), and Cameroon and Gabon (each with 5.2%) had the three highest numbers of CoC certificates while five countries (each with 0.5%) have the lowest numbers of CoC certificates (Table 5). It is worth noting that all of FM and CoC certificates in Africa have been issued by FSC (FSC, 2017) except 10 PEFC CoC certificates issued in Egypt (one), Morocco (three), South Africa (five) and Tunisia (one) (Table 4 & 5) (PEFC, 2017).

Table 4. Global PEFC certified forest areas by region

Region	Forest Management Certificates			Chain of Custody Certificates		
	No. of Countries	Area Certified (1000 ha)	% of Total Area Certified	No. of Countries	No. of Certificates	% of Total No. of Certificates
Africa	0	0	0	4	10	0.1
Asia	4	13,998	4.6	19	1 101	9.8
Central/South America	4	5,623	1.85	9	138	1.2
Europe	23	95,874	31.52	34	9 339	82.9
North America	2	164,440	54.06	3	451	4
Oceania	2	24,266	7.98	3	223	2.0
Total	**35**	**304,202**	**100**	**46**	**11 262**	**100**

Source: PEFC (2017).

Types of certified forest products

The types of certified forest products in Africa are mainly logs, lumber, plywood and carpets. Other are wooden products, which include paper products, household toilet and towel paper, tissue paper and cosmetic wipes; kitchen accessories like cutting boards; furniture for children's rooms, bedrooms or living rooms; outdoor furniture for gardens or terraces; wood for construction and gardens; many tools with a fist or a wooden handle; bags for market, and grilling accessories, like -grill or charcoal pliers.

Table 5. Chain of custody (CoC) certificates in Africa

Country	Chain of Custody Certificates			
	FSC		PEFC	
	Numbers	Proportion (%)	Numbers	Proportion (%)
Algeria	1	0.5	-	-

Cameroon	10	5.2	-	-
Egypt	27	13.9	1	10
Gabon	10	5.2	-	-
Ghana	6	3.1	-	-
Kenya	1	0.5	-	-
Madagascar	1	0.5	-	-
Mauritius	1	0.5	-	-
Morocco	4	2.1	3	30
Mozambique	2	1.0	-	-
Namibia	3	1.6	-	-
Republic of Congo	3	1.6	-	-
Seychelles	3	1.6	-	-
South Africa	114	58.8	5	50
Swaziland	2	1.0	-	-
Tanzania	1	0.5	-	-
Tunisia	4	2.1	1	10
Zimbabwe	1	0.5	-	-
Total	**194**	**100**	**10**	**100**

Source: FSC (2017); PEFC (2017).

4.3. Gaps

The gaps identified as being responsible for the limited success of FC in Africa are summarized below:

- Inadequate/lack of fundamental requirements (enabling conditions and policy/legislation environment as well as appropriate institutional arrangements) for the promotion and implementation of FC (discussed above).
- Lack of national or sub-regional FSSs in many African countries or sub-regions other than the Congo Basin.
- Lack of African-based accreditation bodies for FC.
- Inadequate number of African-based certification bodies and auditors for FC.
- Inadequate public education and awareness on FC.
- Inadequate and unethical implementation of policy and legal framework for SFM (inadequate political will, corruption and tax evasion).
- Low level of information available to stakeholders in laws and regulations governing SFM in general and FC in particular.
- Unavailability of adequate statistical data on African forest resources and the associated wood economy.
- Low level of domestic wood processing.
- Extractive character of the African forest sector with a small proportion of income reinvested in productive activities, such as processing.
- Absence of or inadequate certification of NTFPs.
- FC has inadequate capacity on how to audit and certify ecosystem services (e.g. carbon sequestration, biodiversity conservation and water catchment protection, among others).

4.4. Challenges

The challenges identified as being responsible for the limited success of FC in Africa are summarized below.

- FC initiatives not sustainable due to inadequate appropriate capacity for FC (human, physical and financial resources).
- No Market and Market Information Systems in place for certified forest products.
- Inadequate and unethical implementation of policy and legal frameworks (e.g. FLEGT).
- FC initiatives for smallholder private and community forests are dependent on donor funding.

- With no government involvement allowed by the FSC statutes, there is inadequate government participation in FC. In turn, this causes limited FC of public forests, restricting impact of FC since in many African countries, forests are owned and/or managed by governments and/or agencies of governments.
- While individual certification works well for most medium- and large-sized enterprises, it can be a major challenge for small enterprises, whether these are small forest owners or small-scale producers of wood products since they do not have the economies of scale that their larger competitors have.
- Certified forest products from Africa represent a very small proportion of certified forest products in global markets.
- Demotivation of forest operators due to the complexity of FC's standards and procedures.
- Processes of FC are voluntary and market-oriented with no legal requirements.
- Lack of awareness on FC in some countries.
- Restructuring of FSC that led to the abolition of FSC national initiatives and disbanding the established FSC affiliated NWGs.
- FSC members do not receive the benefits of their membership rights, such as benefiting from training, getting support from FSC for national level activities or attending international meetings or workshops in relation to FC; this may discourage the FSC members from their active participation in the promotion of FC.
- Ignorance of consumers on certified forest products in the markets.
- Limited funds for FC initiatives.
- Inadequate market for certified forest products (local, sub-regional, regional and international markets).
- Expectation of a price premium for certified forest products that is not yet apparent, except for a few niche products and markets. In the absence of a price premium, the costs of certification serve principally not only as a barrier to markets wishing to source certified products but also demotivate forest managers to certify their forests.
- High costs of FC, especially for smallholder private owners and communities.
- FC processes perceived as coming from outside of Africa, and perception of some stakeholders that FC is aimed at boycotting African timber in international markets and is under the domination of activist environmental NGOs.
- Existence of a large market and alternatives for non-certified products.
- VPA signed or under negotiation with the EU leading to a decline in interest for private certification.
- Bad campaigns on the credibility of certificates.
- Domestic market of wood (not demanding in terms of certification) increasingly growing
- Risk of bad publicity for companies in case of withdrawal of the certificate despite the huge resources involved in certification.
- Recurring droughts, which amplify the phenomenon of desertification of woodlands in NASR.
- Difficulty for small scale operations to be certified due to the intensive levels of administration and management required from mostly illiterate forest managers.
- Some FC criteria are above the national standards for forest management, contributing towards resistance of forest managers to certify their operation.
- Weak national forestry institutions, especially for the implementation of forest regulations and enforcement of forest laws.
- Political instability, e.g. DRC, CAR, South Sudan, leading to insecurity that hampers the promotion and implementation of SFM and FC.
- Illegal logging compromising the possibilities of promotion of FC and SFM.
- Inadequate basic information about forest resources and forestry in Africa.
- Poor roads and other infrastructure systems in Africa making FC costly to set up and maintain.
- Corruption, both in public and private forest operations, undermining the possibilities to fight illegal forestry and encourage FC and SFM.
- Most training activities on FC are more theoretical than practical.
- Despites the various efforts being made by different countries and stakeholders to promote FC and SFM, deforestation still continues unabated.
- Heavy burden that forest operators, at least in the Congo Basin, are confronted with if they need to process more than one certificate from various schemes for the same forest area, e.g. FM/CoC,

OLB, TTLV, VLC and VLO, operated by CBs. The multiplication of all these FCSs has led to a war of trademarks and a need for clarification to the consumers.
- Fluctuations of the total area of forests certified and the numbers of certificates (FM and CoC) in Africa over the years owing to either suspension or failure by the forest companies to renew their certificates.
- Weakness of the EUTR, reflected in illegally sourced wood still being imported into Europe, despite the entry into force of the EUTR in the importing countries.
- Difficulties in implementing social requirements related to the SFM and FC.

4.5. Opportunities

The opportunities that could be created as a result of promotion and implementation of FC in Africa have been identified and categorized as economic, social, environmental, and cross-cutting (i.e. cutting across economic, environmental and social dimensions) as summarized below.

Economic opportunities
- Greater access to premium timber markets, where they exist.
- Medium-term gains in efficiency and productivity.
- Protection of market share and increased marketing opportunities through product differentiation.
- Reduction of environmental risk, resulting in better access to financial markets for loans, right issues, insurance, etc.
- Improved image in 'green' conscious markets and with employees.
- Better commercial advantage of timber companies over competitors, e.g. preferential access to new customers or increased market share or better prices through direct sales or niche marketing.
- Reduction of the number of intermediaries and, thereby, increased proportion of the final sale price awarded to the forest owner by improving the efficiency and transparency of the supply chain.
- Improved product supply prospects.
- Improved management control/system, including internal mechanisms of planning, monitoring, evaluation and reporting.
- Economic benefit for local communities.
- Higher recovery of national revenues where forest revenues are being avoided.
- Promotion of multiple benefits, e.g. non-timber forest products and ecosystem services.

Environmental opportunities
- Environmental conservation and maintenance, and enhancement of biodiversity.
- Great potential to promote payments for ecosystem/environmental services.
- Provision of a mechanism for companies to reduce environmental risk and negative commercial effects that high environmental risk increasingly involves.
- Improve company influence on government and politicy
- Increase credibility of companies with environmental groups.
- Influencing the health and viability of World Heritage Sites adjacent to certified forests.
- Conservation, maintenance and enhancement of High Conservation Value Forests.
- Protect rare, threatened or endangered species and/or their habitats.
- Minimizing the movement of invasive species.
- Prevent or contain forest fires.

Social opportunities
- Improved health, safety, rights and living conditions of employees in forest companies and their families.
- Protection of sites of special cultural, ecological, economic and religious significance to local communities.
- More inclusive and better governed institutions for negotiations between local populations and logging companies.

- Financial or in-kind support to local communities for many purposes, including consultation, capacity-building and economic development.
- Better managed and more effective benefit-sharing mechanisms.
- Formal agreements between forest companies and local communities, leading to verification that their interests and concerns are incorporated into the management plan of the certified forests.
- Innovative ways of dealing with problems related to infringement of customary uses.
- Increased stakeholder involvement in RFM and promotion of new institutional roles in relation to governments.
- Balancing the objectives of forest owners, other stakeholders and society.
- Bringing together industry, environmental and local communities in an unprecedented way.
- Reduced social conflict in and around certified forests.
- Securing land tenure and usufruct rights (in certified community forests).
- Greater protection of NTFPs.
- Poverty alleviation.

Cross-cutting opportunities

- Promotion of RFM more generally through dialogue between the private sector, government bodies, NGOs and civil society.
- Creating a climate of change for policy and legislative reform.
- Incentive to harmonize forest management standards between countries.
- Enhanced capacity for RFM.
- Enhanced effectiveness and efficiency of forest managers.
- Development of new skills and capacities for stakeholders and organizations involved in forestry.
- Contribution to foresters' professional development.
- Gaps identification, leading to more relevant forest research and allocation of research resources.
- Enhancing better public reporting as a result of the provision of independent statements on forest condition and status: the principle of third party verification.

4.6. Needs identified for the successful implementation of Forest Certification

Outcomes of the needs assessment undertaken on availability and accessibility of fundamental requirements for FC at national, sub-regional, Africa and international levels can be categorized into human, financial and physical resources, technical capability/skills, enabling policy/legislation environment, appropriate institutional arrangements, marketing and marketing structures/information systems as well as support in standard development, which are summarized below.

Human resources

- Increased number of qualified auditors for each country.
- Qualified internal auditors in forest companies for FM and CoC certification processes, i.e. for the preparation of external audits as well as coaching and training staff members and overseeing the work regularly.
- Trained stakeholders in the technical development of national standards for sustainable forestry and cetification management.
- Raising awareness on advantages and disadvantages of FC, its potential role as a policy instrument for RFM and related market requirements.
- Assessment and integration of social needs, including access to resources, workers' needs and rights, and community development.

Financial resources

- In order to have SFM initiatives that employ FC as a tool, there is need to have financial institutions at national or sub-regional levels to support such initiatives to complement efforts of private companies and environmental NGOs. The Tanzania Forest Fund (TFF) is an example of such a financial institution.
- Establish well-coordinated funding mechanisms to support stakeholders at all levels in the forest sector in the development and promotion of FC. The good examples of WWF’s GFTN and ITTO

should be scaled-up and initiatives are required to set-up similar mechanisms to support volunteer companies to go for FC.

- Partnerships should be encouraged between major distributors of certified products and producers to support them financially through better prices or direct subsidies.
- Efforts of African RECs - COMIFAC, EAC, ECOWAS and SADC - to promote SFM and FC should be supported by donor agencies.

Physical resources

- NIs/NWGs/SDGs that would be responsible for the development of FSSs and promotion of FC should be established with national offices adequately staffed, furnished and equipped.
- Moreover, the physical presence of FCSs, demonstrated by the presence of fully staffed, equipped, furnished and operational offices, is needed in Africa to promote FC.

Technical capability/skills

- Developing and implementing a training programme on FC targeting various stakeholders at all levels, including government employees.
- Build technical capacity of stakeholders in the areas of:
  - ✓ forest certification schemes/systems;
  - ✓ techniques of forest management, including development of forest management plans;
  - ✓ geographic data and assessment systems, e.g. Geographical Information System and Remote Sensing;
  - ✓ traditional knowledge and socio-cultural services associated with forest resources;
  - ✓ undertaking studies on the economic potential of forest areas;
  - ✓ restoration of forest resources, including reforestation of targeted areas;
  - ✓ conflict management;
  - ✓ valorization of forest products and services, starting with medicinal and aromatic plants and, thereafter, ecosystem services;
  - ✓ techniques of Reduced Impact Logging;
  - ✓ identification of high conservation values in managed forests;
  - ✓ establishment and management of forest products traceability systems (CoC);
  - ✓ forest auditing techniques;
  - ✓ Building capacities of producers (farmers, communities, concessionaires and governments), small- and medium-sized enterprises, regulators (public extension systems), assessors/auditors, certification bodies, accreditation bodies, timber companies, wood and NTFP industry, rural/urban development banks, etc. to implement RFM and comply with related standards. Forest owners, managers and field staff to understand and implement the requirements of responsible forest management, including adequate training and support.
- Build capacity for conducting internal audits and establishing an effective external audit process.
- Knowledge and skills/techniques necessary to understand the forest resource, including forest dynamics, standing volume, growth and yield, what responsible or sustainable forest management entails, including management planning, harvesting, silviculture and road building.
- Provide training on environmental protection, conservation planning and identification, protection and monitoring of endangered species and forests of high conservation value.

Enabling policy/legislation environment

- Mainstreaming FC as a tool for promoting SFM in existing policy and legal frameworks of African countries, as has been done in Namibian, South African and Ugandan forest policy and legislation.
- Strengthen capacities and mechanisms for forest law enforcement and governance (FLEG).
- Revision of forest/environmental policies and laws to provide more support to FC, forest companies and all other stakeholders in FC.
- Put in place public procurement policies that clearly support/prioritize procurement of certified forest products.
- Capacity for developing certification standards and procedures.
- Strengthen the capacity of policy makers through training and sensitization on FC.
- Strong, committed leadership: sufficient numbers of well-trained supporters of responsible management in government, NGOs, companies and support agencies.

Appropriate institutional arrangements

- Establishment of forest certification structures adequately covering Africa, viz. regional and sub-regional offices, national offices/representatives/focal points, African-Based (preferably also African-owned) certification bodies, SDGs/NWGs, etc. and build the capacities of existing ones.
- The groups responsible for promoting certification, such as SDGs/NWGs should be established in countries with a clear legal status and recognition by Forest Administration authorities and the different FCSs, and with the necessary support to operate effectively and efficiently
- Supporting African-based interested entities to become CBs for FC.
- Provide public institutions responsible for forest management in Africa with adequate staff members empowered with the necessary physical and financial resources as well as technical capabilities so that they can shoulder their responsibilities during the process of FC.
- Institutionalising courses on FC in higher learning institutions at national levels could bridge the knowledge gap in FC.
- Development and strengthening of public-private-partnerships among various stakeholders, which are instrumental to promote FC.

Marketing structures/information systems

- Develop and maintain markets and market structures/information systems that link African forest owners/operators, primary producers and traders to the different actual and potential sub-regional, regional and international markets of certified forest products/services, which recognise, promote and reward RFM.

Need for support in standard development

Studies carried out in the different sub-regions of Africa indicate that there are initiatives of FC and/or FSS development in some African countries, e.g.: (i) Cameroon, CAR, Gabon, DRC and ROC in CASR; (ii) Kenya, Madagascar, Mozambique, Tanzania and Uganda in EASR; (iii) Namibia, South Africa, Swaziland, Zambia and Zimbabwe in SASR; (iv) Egypt, Morocco and Tunisia in NASR; and, (v) Benin, Burkina Faso, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo in WASR.

The processes involved in the development of FSSs are very complex and require appropriate technical skills as well as longer periods for completion. As a result, the decision to develop the national FSSs should be taken by the stakeholders in the countries. In other words, the development of national FSSs should be demand-driven. Hence, interested parties and development partners that are willing to support the development and implementation of national FSSs should approach and work with the national stakeholders and in close collaboration with national, regional and international FCSs, namely FSC, PEFC, AEM, PAFC Gabon and Cameroon as well as those that are engaged in the verification of legality of timber, e.g. BV, SGS, SW and EU.

5. Discussion

Forest and woodland resources in Africa play critical roles in providing goods and services necessary for the well-being of all, including human beings, animals, micro-organisms, and the physical environment. However, as in other tropical regions, various factors have affected these resources in Africa (Teketay, 2004-2005; Njuki et al., 2004; Kowero et al., 2009). The factors range from demographic to institutional, climatic, societal and political factors. Because of the complexity of these factors, it has been difficult to achieve SFM in Africa. As the problems of deforestation and forest degradation continue unabated, public concern for the environment, in general, and forest and woodland resources, in particular, has grown markedly during the last decades, both in developed and developing countries. As a result, environmental issues are becoming more important in global economic and trade policies.

The emergence of FC, a process that attempts to provide an indicator of how well a product is environmentally appropriate, socially beneficial and economically viable, is a contemporary example of a market-driven mechanism, giving consumers the opportunity to use their purchasing power to promote environmentally friendly and socially beneficial products (FSC, 1994; Vogt et al., 2000; Perera and Vlosky, 2006; Muthoo, 2012; Teketay, 2015; Teketay et al., 2016). In addition, SFM systems supported by FC conform with the green economy paradigm because they appropriately balance the social, economic and environmental dimensions of development. FM and the associated CoC certification are developing into a prerequisite for public procurement and market access, and have become associated with ethical trade and social responsibility (Muthoo, 2012).

Blue monkey (*Cercopithecus mitis stuhlmanni*), Kakamega Forest, Kenya. Photo: Charles J Sharp via Wikimedia Commons

FC can help ensure the provision of forest biomass as a renewable carbon-neutral energy source and as a substitute for carbon-intensive building materials, such as steel and cement, thereby lowering the carbon footprint and contributing to the alleviation of climate change and generally contributing to a greener economy. Moreover, FC can also help ensure that forests are not only well-managed, but also properly valued by markets.

The idea and practice of ensuring stakeholders with economic, environmental and social concerns, sometimes with conflicting interests, to sit together around a table to discuss and agree on how best to manage forest resources, which characterizes FC, is among the excellent and innovative initiatives developed. However, such an initiative alone is not enough to bring about the intended impact, namely RFM/SFM. The successful promotion and implementation of RFM/SFM globally and in Africa, through FC as a market tool, involves tackling the prevalent problems facing forest resources. These include inadequate or lack of enabling human, financial and physical resources; unconducive policy/legislative environments, market and institutional failures, inadequate tenure, increasing human and animal populations and their demands – leading to increased deforestation, forest degradation and fragmentation. These, as well as inappropriate infrastructure, technology and skills, require policy decisions to be made at national and international levels (Upton and Bass, 1995).

The policy requirements at the national level to ensure RFM/SFM (Upton and Bass, 1995; Nussbaum and Bass, 2005; Muthoo, 2012) include: (i) establishing multi-stakeholder involvement with more appropriate roles in decisions on forests; (ii) appropriate policy and legislation with policy instruments that provide secure tenure and rights over forest resources as well as effective incentives for RFM/SFM; (iii) managing forest resources, which should cover the legal classification of production forests (natural and plantations), protection forests (for biodiversity, cultural and watershed conservation) and mixed land use categories; (iv) building capacity to meet current and changing needs; (v) improving the financial environment of forest conservation and management; (vi) improving forest information, monitoring, valuation and research; and, (vii) ensuring domestication and country-level coordination of international forest initiatives.

The international policy requirements include support for national processes, such as financial and technical assistance for capacity strengthening and skills development: sharing information, research and technology: harmonization of standards, etc., and dealing with global forest issues, e.g. developing and harmonizing FSSs and payment for environmental/ecosystem services (PES) schemes (Upton and Bass, 1995; Nussbaum and Bass, 2005; Muthoo, 2012).

The assessment of the status of FC in Africa revealed that two international (FSC and PEFC), one regional (AEM) and two national (PAFC, Gabon and Cameroon) FCSs are currently engaged in FC in Africa. However, only FSC, which has issued all the FM certificates and all but 10 of the CoC certificates, is fully developed; the other FCSs are at the initial stages of development. AEM had a good start in its development, but is currently surrounded with problems, mainly funding, that are challenging even its existence and continuation as a credible regional FCSs/Eco-Labelling scheme. The development of PAFC Gabon as the national FCS started in 2004, but it became endorsed as the first PEFC-affiliated FCS only in 2014, indicating that its process of development has been exceptionally long. As a result, not even a single forest operation has been certified by PAFC Gabon so far. PAFC Cameroon, which is at an initial stage of development, is passing through the same processes as PAFC Gabon to get endorsed by PEFC as a PEFC-affiliated national FCS. Though it is difficult to predict the exact period required for PAFC Cameroon to be endorsed by PEFC, it can be speculated that the process might take as long a period as observed in the case of PAFC Gabon. From the foregoing, it is clear that FSC will, for a long time, continue to be the leading FCS in Africa.

Despite FSC's commendable efforts and achievements in promoting and implementing FC in Africa, the facts that: (i) its past two regional offices established in Ghana and Cameroon had to be closed down, necessitating a third one to be opened recently; (ii) its decision to restructure the organizational set-up, leading to the abolishment of NCPs/NIs in 14 out of 16 African countries was associated with abandoning/disbanding of the FSC-affiliated NWGs, including those which were relatively strong, e.g. Cameroon, Gabon, Ghana and ROC; and, (iii) less attention is given to FSC members in Africa, all suggest that FSC has had and continues to have problems of developing deep organizational roots in the region. The above facts not only affected initiated/planned activities, as well as regional and national organizational setting-up of FSC by the past regional offices and FSC-affiliated NWGs, but also caused the demotivation of FSC members in Africa. The major causes of these problems were the dependence of FSC on unsustainble projects funded by donors/development partners, and the lack of organizational system/procedure to dedicate funding from the central treasury to cover, at least, operational costs or bridge gaps created when donors pulled out from funding projects run by the regional/national offices.

In addition to the FCSs, a number of organizations have provided, and continue to provide, commendable support, in the areas of capacity building/training, development of regional, sub-regional and national FSSs as well as funding, which has been instrumental in promoting and implementing FC in Africa. The costs and benefits of certification, including a low, or no, price premium for certified products, can be interpreted by stakeholders from varying perspectives. If there is no net financial benefit, the up-take of FC will be correspondingly slow, although other factors, such as the marketing of a green/ethical image may be at play. The potential profitability of certified products will influence marketing strategies, entrepreneur- and stewardship of forest custodians, communities and companies (Muthoo, 2012).

One of the initial pre-requisites of FC is the development of FSSs, which is a multi-faceted process involving custodians of the forest and related resources, owners, workers and managers, local communities and societies, retailers and consumers, producers and processors, business, and civil-society organizations. Harmonized FSSs are required to bring

synergy between the various stakeholders and their diverse expectations regarding economic return, the environment and social justice. As a result, there has been increasing interest in developing national FSSs in Africa although the achievements so far are limited. As stated above, this implies that there is a need to strengthen institutions, policies and legislation to reduce the gap between current standards of forest management and certification requirements, so that FC delivers due rewards to forest stewards, especially in recognition of their contribution to RFM/SFM, forest law enforcement and legality (Muthoo, 2012).

Stakeholder engagement is crucial to the success of any FCS. It is only through participation of all interested parties that a system can ensure that all information and knowledge are applied, experiences and best practices are integrated, conflicts avoided, and stakeholder expectations are met (PEFC, 2014). The motives and interests of the various stakeholders in FC are rarely fully mutually reinforcing. There are many potential conflicts: for example between local communities, traders and consumers, between those who incur costs and those who receive benefits, and between big and small operators, North and South, and global and national FCSs. Therefore, FC has to take into account all these, sometimes, divergent values, interests and goals. Engaging local small-scale stakeholders is also essential if FC is to be a mechanism for improving equity (Muthoo, 2012).

The results from the assessment of perceptions of stakeholders revealed that at the initial stages of the promotion and implementation of FC in Africa, the various stakeholders perceived FC differently depending on their vested stake as well as perceived risks and benefits. Also, most stakeholders considered FC as originating from and imposed on them by the Global North to block entrance of timber and other forest products into the international markets. However, the suspicions and unwarranted worries have subsided through time, thanks to the crucial and pioneering past and ongoing efforts of FCSs, especially FSC, and other stakeholders. As a result, most stakeholders are currently appreciating FC and, hence, actively engaged in supporting, promoting and implementing FC.

The legality of timber production and trade is “an essential pre-requisite” for achieving SFM (van Dam and Savenije, 2011; Muthoo, 2012). Hence, as described earlier, different organiza-tions, viz. EU, BV, SGS and SW - through their various plans/programmes, i.e. the FLEGT Action Plan (EUTR and VPAs), OLB, TTLV and VLO-VLC, respectively, have been engaged in verifying the legality of timber and timber products originating from Africa, especially in central and western Africa sub-regions. Nevertheless, illegal logging is still rampant in Africa, including the Congo Basin, mainly because of the availability of national, sub-regional, regional and international markets for illegally-sourced timber and timber products.

Evergreen forest in southwestern forest in Ghana
Photo Credit: Enoch Gbénato Achigan-Dako

This has also been identified as one of the major threats limiting/discouraging the expansion of certified forests and forest products in the region (see under 3.4). Illegal logging has been reported to generate illicit earnings of 10-15 billion USD annually, including the huge underpayment of royalties and taxes (Goncalves *et al.*, 2012; Muthoo, 2012). This estimate does not capture the enormous environmental and societal costs associated with illegal logging. This stifles sustainable development and distorts the marketplace, dis-couraging legitimate forest enterprises from investing in good forest management and undermining attempts to achieve FC and RFM/SFM.

In spite of the encouraging efforts made to promote and implement FC by various organizations, the total number of national (seven), sub-regional (one) and regional (one) FSSs endorsed (by FSC, PEFC and AEM) are only 9 while the areas of forests certified (with FM certification) in Africa represent only 3.9% of the total area of FSC-certified forests worldwide and about 1.5% when compared with the total areas of forests certified globally by both FSC and PEFC. The total numbers of FM and CoC certificates issued in Africa by FSC are 3.4% and 0.6% of the global total, respectively. Furthermore, the total area of certified forests and the numbers of certificates (FM and CoC) have been observed to fluctuate over the years since the beginning of FC in Africa. This is owing to either suspension of certificates by the CBs as a result of violation of compliance with the FSSs or failure to renew their certificates by forest companies for reasons previously discussed. For instance, as no certificate was renewed, the trend of the OLB certification in Gabon has been rather downwards. This indicates demotivation or lack of interest from economic operators. Similarly, in CAR, one company had a total of 195,500 ha certified through the OLB system of BV in 2006. However, this certificate has not been renewed. In 2010, Société de Développement des Forêts (SODEFOR), a logging company in DRC, was certified through the VLC by SW. The certificate was withdrawn a few months later due to a complaint by Greenpeace (Mbolo, 2014a).

The apparently slow progress and limited success of FC in Africa could be attributed to inadequate, or lack of, fundamental requirements, i.e. enabling conditions and policy/ legislation environment, appropriate institutional arrangements as well as market and marketing/ information systems, compared with the ideal requirements discussed above, as well as the numerous gaps and challenges identified. In agreement with these findings, Peña-Claros et al. (2009) and Muthoo (2012) have reported that despite considerable potential to expand the area of certified forest in the Global South, there are many obstacles, including limited domestic demand for certified products, the incompatibility of certification standards with local legal frameworks, weak governance, and barriers to adoption by small landholders and forest communities, especially those without clear title or tenure. Moreover, the cost and lack of know-how related to FC as well as the big gap between existing management and what is required for FC are huge hurdles for private and public forest custodians in many tropical countries. Addressing these problems warrants international recognition and investment to strengthen capacity and promote better management. As alluded to earlier on, Muthoo (2012) has also emphasized that the international development partners should consider increasing investment for promoting FC while, at the national level, public- and private-sector organizations could contribute to and help deliver such investment.

The limited achievements recorded so far coupled with the numerous gaps and challenges identified as associated with the promotion and implementation of FC in Africa, suggest the critical need for measures to make FC more attractive and less costly (Ghazoul, 2011; Gullison, 2003; Muthoo, 2012). These measures include group certification (Nassbaum, 2002; Nassbaum and Simula, 2005), certification of non-timber/wood forest products (NTFPs/ NWFPs) from which millions of poor people derive their livelihoods (Yadav et al., 2007; Muthoo, 2012), small or low-intensity managed forest (SLIMF) certification (FSC, 2005a, 2009), phased approach (Nassbaum and Simula, 2005), also known as SmartSteps (Rainforest

Alliance, 2007), modular approach (FSC, 2005b, 2013) and FC for ecosystem services (Nassbaum and Simula, 2005; Teketay et al., 2016).

While concerned stakeholders are understandably worried about the slow progress and limited success observed in FC in Africa, the assessment of the economic, environmental, social and cross-cutting opportunities that could be realized if and when FC is successully promoted and implemented revealed very promising and appealing outcomes (see details under 3.5). The general contents of several of these opportunities concur with those reported by Muthoo (2012), which are summarized below. Thus, FC can:

- be an effective tool for promoting sustainable livelihoods, safeguarding the biodiversity of ecosystems, combating climate change and reducing C emissions through avoided deforestation and forest degradation (REDD+);
- serve as a backstop for the verification and monitoring of projects on REDD+ and PES, which would translate into opportunities for new resources for conservation and restoration of forests;
- be used as a tool in REDD+-related strategies and PES to address climate change and to benefit local forest stewards;
- unite stakeholders in a quest for an inclusive green economy;
- address fair trade, the need to balance social, cultural, economic and environmental dimensions of development, and environmental concerns for the biodiversity- and C-rich forests in the South;
- backstop efforts to erode persistent poverty, which is both a cause and a consequence of deforestation and forest degradation; and,
- assure the health and RFM/SMF, which can, in turn, contribute to goals of the multilateral environmental agreements, poverty alleviation and green growth.

6. Conclusions and recommendations

Two main policy approaches have been adopted, i.e. ‘top down’ and ‘bottom up’, to manage forest resources by relevant stakeholders and authorities globally and in Africa. In the top-down approach, fundamentals of policies are formulated at higher levels of government and implemented under the authority of the government. The bottom-up approach, on the other hand, relies more on a participatory approach where the public agrees on the need for and forms of the policy, and implements it through tradition, cooperative agreement or local rule. However, past experiences of the ineffectiveness and failures of both approaches have led to the third approach, namely FC, which introduced policy changes through commercial rather than central or local power and uses market acceptance rather than regulatory compliance as an enforcement mechanism (Naka et al., 2000; Perera and Volsky, 2006; Teketay, 2015).

Concerned about the accelerating deforestation, environmental degradation and social exclusion, a group of timber users, traders and representatives of environmental and human rights organizations met in California in 1990. This diverse group highlighted the need for a system that could credibly identify well-managed forests as the sources of responsibly produced wood products. The concept FSC and the name were coined at this meeting. Therefore, FC started with the establishment of FSC in 1993 with a definitive set of Principles and Criteria as well as the Statutes agreed and approved by the votes of the Founding Members in 1994 (FSC, 2014d). Following the establishment of FSC, several international, regional and national FCSs proliferated.

In Africa, two different groups of FCSs have emerged over the years, which are promoting and implementing forest certification. The first group promotes FM, CoC and CW (only by FSC) certification. To this group belong the two *international* FCSs, namely FSC and PEFC. In addition, the African Eco-Labelling Mechanism (AEM) is being developed as an African *regional* certification scheme while two Pan-African FCSs affiliated to PEFC, namely Pan-African Forest Certification (PAFC) Gabon and Cameroon, are also being developped as

national FCSs. The second group promotes verification of the legality of timber and timber products, some in addition to FM, CoC and CW certification. To this group belong BV, SGS, SW and EU.

A total of nine FSSs, composed of seven national, one sub-regional and one regional FSSs, have been developed and endorsed in Africa. Forests in Africa have been certified with FM certificates through only the FSC FCS. The types of certified forests in Africa include natural as well as semi-natural forests, exotic hard and soft-wood plantations, and miombo wood-lands/forests (community natural forests).

Up to October (FSC) and September (PEFC) 2017, the total area of forests certified by FSC in Africa is c. 7,7 million ha, representing only 3.9% of the total area of FSC-certified forests worldwide (c. 195,7 million ha) in 12 countries (14.3% of all countries with FSC-certified forests worldwide) and 2.5% of the total area of PEFC-certified forests worldwide (c. 304,2 million ha). The areas of certified forests (with FM certification) in Africa represent only 1.5% when compared with the total areas of forests certified worldwide by both FSC and PEFC (c. 500 million ha). During the same period, the total number of FM certificates issued in Africa by FSC were 51 (3.4% of total FM certificates issued by FSC) in 12 countries. The total number of CoC certificates issued in Africa by FSC are 194 (0.6% of the total CoC certificates issued by FSC) in 18 countries while PEFC issued 10 CoC certificates (0.1% of the total CoC certificates issued by PEFC) in four African countries. Different types of forest products have been certified in Africa.

The above figures suggest that the area of forests certified in Africa and, hence, brought under RFM/SFM is relatively very small compared with the available large expanse of forest resources in the region that qualify for FC and the area of forests certified worldwide. This has been attributed to the numerous gaps, challenges and, hence, various needs identified. On the other hand, the outcomes, which could be realized if and when FC is implemented successfully, hold promising and attractive economic, environmental, social and cross-cutting opportunities.

In general, the outcomes of the assessment of availability and accessibility of fundamental requirements, the large numbers of existing gaps and challenges identified as being responsible for the limited success on FC as well as needs identified to close the gaps, address the challenges and exploit the opportunities, all point towards the fact that ensuring RFM/ SFM, through the use of FC as a voluntary market tool in Africa requires huge coordinated efforts by all concerned stakeholders at national, sub-regional, regional and international levels. One of these efforts is the need for developing appropriate demand-driven and tailor-made *capacity building programmes* (CBPs) aimed at enhancing/creating the required capacities in terms of human, physical and financial resources, and technical capability/skills. Such programmes should also address the shortcomings of the policy/legislation environment, appropriate institutional arrangements as well as deficiencies in markets and marketing structures/information systems for the successful promotion and implementation of FC. Among the many possible CBPs are *Training Programmes* (TPs) on the various aspects of FC in Africa, such as the one already developed by the African Forest Forum (AFF). The CBPs should target actors at various levels along the value chain of the forest sector.

It is, therefore, strongly recommended that the relevant stakeholders should come together and jointly develop/design and implement a strategy that should contain, among others, support programmes, e.g. the CBPs and TPs mentioned above. Such programmes will guarantee closing the numerous gaps identified, and overcoming the many challenges recognized. Ongoing efforts should be supported while ensuring the effective and efficient exploitation of

economic, environmental, social and cross-cutting opportunities in order to fulfil the various needs identified for the successful implementation of FC in Africa.

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