Acknowledgements

An overview of the processes by FAO (Lanly, 1994) showed consensus on the characterization of sustainable forest management through six criteria which include concerns such as ecosystem services (biodiversity, water, carbon sequestration, climate change, etc), wood and wood products, and socio-economic values of forests. These are:

1. Three criteria concerning the quality and quantity of the forest ecosystem;
    - extent of forest resources
    - conservation of biological diversity (at ecosystem, species and intraspecific level)
    - forest health and vitality
2. Two criteria concerning the functions of the forest ecosystem:
    - productive functions of the forest
    - protective functions of the forest
3. CC

demonstrate key contributions of forests to a range of Sustainable Development Goals (SDGs). They also highlighted the need to address the lack of data available on the contribution of forests to key areas covered by the SDGs and other global forest-related policy objectives, such as poverty eradication, livelihoods, health and energy. This has given impetus to the renewed focus on development of C&I and is in part the driver of this study.

3.2 Voluntary National Reporting Under UN Strategic Plan for Forests

As indicated above, national reporting on implementation of commitments under these nine forest-related instruments is diverse in approach, content and degree of detail. What is apparent is that the information requested is most often descriptive and is focused on

forests, and Kakamega forests. Similarly, too, compiling the data for reporting to other UN processes and regional and international agreements such as CBD requires considerable effort in compilation, while that to CITES does not require as much effort due to the afore mentioned focus on species of high interest.

b) Socio-economic forest data

A significant amount of socio-economic data is required for MAR of SFM. The Kenya Forest Service collects very little data on the socio-economic aspects of forests, except for farm forestry and associated enterprises. The Kenya Forestry Research Institute, KEFRI, collects considerable socio-economic data but which either end up as published journal material, or as internal reports, and thus not widely accessible. As with many developing countries, therefore, Kenya lacks socio-economic statistics expressly collected for forest reporting.

The Kenya National Bureau of Statistics is charged with collecting statistics for national policy making and planning and conducts surveys of relevance to reporting on SFM. These include Economic Surveys, Census of Industrial Production, Labour Force Surveys, etc, that have a bearing on many socio-economic indicators of MAR for SFM. While not collected in a forestry context, the data can be used for reporting on forestry impacts on livelihoods and wellbeing of forest dependent communities. It is noteworthy that the KNBS has rolled out an agriculture sector (in which forests are grouped) strategic plan (2017-2022) aimed at broadening data collection for improved sector planning. This will in future allow for collection of forestry specific socio-economic data.

The Kenya Integrated Household Budget Survey (KIHBS) is conducted every 10 years, and the second KIHBS report for 2015/16 was released in March 2018. The component of the report on 'Wellbeing in Kenya' details findings on various poverty indices including ratios below the poverty line, food poverty, extreme poverty, etc disaggregated by gender and county. While the reporting is at county level, the data resolution is at the Ward level (the smallest governance unit recognized in the Kenya constitution). In Kenya, people who live within 4 km of forests are considered to be 'forest adjacent', and thus most dependent on the resources. By selecting indicator forests of different types, and identifying wards that surround it, the data for the wards can be used to effectively track the impact of the forests

annually if desired, and at much better resolutions for forest dependent communities.

Following devolution of many national functions to county governments in 2013, most counties in Kenya are already setting up Statistics units to spearhead data gathering for policy making. The resolution of county statistics will be much higher than the Ward level currently used in national statistics, which will aid isolation of indices for forest dependent populations much easier. Thus, the data reliability and comparability over time will improve with the coming of county level statistics.

Forests in Kenya comprise relatively small blocks scattered across the country. Further, savanna woodlands, which comprise the major portion of Kenya forest estate, have no fixed boundaries and occur extensively throe9inilledts in Killewm in0b (e)34 (ro)tions mo34 (ro)roxeha

Target No	Relevant Target/Indicator	Remarks
	1.3.1 Area of all types of forests managed according to management plans (,000 Ha) 1.3.2 Area of forest land lost to alternative land uses (agriculture, settlement, infrastructure, etc) ('000 Ha/Yr) 1.3.3 Area of new land brought under all types of forest production, including farm forests ('000 Ha/Yr) 1.3.4	

Target No	Relevant Target/Indicator	Remarks
2.3	2.3 The contribution of forests and trees to food security is significantly increased	
	2.3.1 Total national food production from all forests 2.3.2 Headcount ratio of food poor among forest dependent population 2.3.3 Headcount ratio of food poverty among female headed households 2.3.4 Prevalence of underweight children below 5 years of age among forest dependent households 2.3.5 Proportion of undernourished people among forest dependent population	
2.4	2.4 The contribution of forest industry, other forest-based enterprises and forest ecosystem services to social, economic and environmental development, among other things, is significantly increased	
	2.4.1 Total Annual Value of non-wood forest products 2.4.2 Total Annual Value of different forest ecosystem and regulatory services 2.4.3 Share of forest sector in GNP 2.4.4 Annual Value of primary and secondary forest industries 2.4.5 Annual Value of forest biomass energy 2.4.6 Number employed in primary and secondary forest industries	
2.5	2.5 The contribution of all types of forests to biodiversity conservation is enhanced, taking into account the mandates and ongoing work of relevant conventions and instruments	Climate change to be on its own
	2.5.1 Area of forests considered biodiversity hotspots 2.5.2 Population levels of key forest fauna and flora 2.5.3 Biodiversity index of all types of forests 2.5.4 Area of all forests affected by invasive species (fauna and flora)	
2.6	2.6 The contribution of all G5 (.5)-ec	

Target
No

Target No	Relevant Target/Indicator	Remarks
	4.2.7 Total annual payments for forest goods and services 4.3 North-South, South-South, North-North and triangular cooperati and public-private partnerships on science, technology and innov in the forest sector are significantly enhanced and increased 4.3.1 Number of active MOUs and agreements 4.3.2 Annual funding for forestry Research programmes 4.4 The number of countries that have developed and implem forest financing strategies and have access to financing fro sources is significantly increased 4.4.1 National Forest financing strategies developed (eg, C financing) 4.5 The collection, availability and accessibility of forest-related information is improved through, for example, multidisciplin scientific assessments 4.5.1 Existence of a national depository for forest information 4.5.2 Existing structures for national and international exchange forest information 4.5.3 National Forest Monitoring framework developed	

5. Potential sources of data for GFG Targets

Global Forest Goal 1: Reverse the loss of forest cover worldwide through sustainable forest management, including protection, restoration, afforestation and reforestation, and increase efforts to prevent forest degradation and contribute to the global effort of addressing climate change

Global forest Goal 2: Enhance forest-based economic, social and environmental benefits, including by improving the livelihoods of forest-

Per capita income	KNBS/ES[3]	3 Months	High	High
Gender Inequality Index (GII)	KNBS/KIHBS[4]	3 Months	High	High
Child poverty	KNBS/KIHBS[5]	3 Months	High	High
Poverty Gap ratio	KNBS/KIHBS[6]	3 Months	High	High

2.2 Increase the access of small-scale forest enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets

Indicator	**Source of Data**	**Frequency of collection**	**Reliability**
Proportion of SME using financial services	KNBS/MSME[7]	5 Years	High
Membership in VSLA	Ministry of Trade, Ministry of Cooperatives		
Credit from National SME Funds	KNBS/MSME	5 Years	High
SME forest licensing	KFS	Annual	High
Training for forest SME	KFS	Annual	High

2.3 The contribution of forests and trees to food security is significantly increased

Indicator

ecosystem services to social, economic and environmental development, among other things, is significantly increased

Indicator

Area of all types of forests protected under Forests, Water, Antiquities ,Wildlife Conservation and Wetlands Acts	NEMA, KFS, WRA,

3.3 The proportion of forest products from sustainably managed forests is significantly increased

Annual production from public, farm, private and community forest plantations

Global Forest Goal 4: Mobilize significantly increased, new and additional financial resources from all sources for the implementation of sustainable forest management and strengthen scientific and technical cooperation and partnerships

Targets

4.1 Mobilize significant resources from all sources and at all levels to finance sustainable

4.5.2 Functional platforms for forestry related information sharing are available	**MEF, KFS, KEFRI, Learning Institutions**	**Annually**	**Medium**

6. CONCLUSIONS

(i) Most forest data in Kenya, except for biophysical data on area, growth and yield of plantations and protected areas, is widely dispersed and scarce for some forests and forest types, while being quite comprehensive for forests of high conservation and human interests. This data scarcity is particularly the case for the Savanna woodlands, which comprise over 70% of the countries forest cover.

(ii) Most forest information exist in grey literature, are dispersed and uncatalogued, thus require considerable effort to compile for purposes of MAR. Further, the data

8. References

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