



LATIN AMERICAN AND CARIBBEAN FORESTRY COMMISSION

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4. The state of the forest sector and pathways to sustainable forest development in the region

Secretariat Note

I. Introduction

1. This note summarizes, from a regional standpoint and drawing on other relevant references, the latest edition of *The State of the World's Forests (SOFO 2018)*, that presents new information on the interlinkages between the Sustainable Development Goals (SDGs) to help understand how policies on forests and trees go beyond SDG 15 and contribute to achieving many other goals of the 2030 Agenda.

II. The contributions of forests to the Sustainable Development Goals

2. Upon examination of the data available for 28 targets within 10 SDGs (1, 2, 5, 6, 7, 8, 11, 12, 13 and 15), notwithstanding the contributions to the other goals, SOFO 2018 provides evidence of the contribution that forests and trees make to achieving the 2030 Agenda, identifies data gaps and areas where more work is needed to understand the physical, biological and socioeconomic linkages, and highlights interlinkages and opportunities to support more effective implementation of the SDGs.

Livelihoods and food security (SDG 1 and SDG 2)

3. Forests and trees are vital to the livelihoods and food security of a large part of the world's rural population, particularly indigenous communities, small-scale farmers, people who live in areas close to forests and those who use trees in non-forest areas. Although there are large regional differences, it is

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estimated that around 40 percent of the extreme rural poor live in or around forest and savannah areas¹ (Table 1). Of these, almost eight million reside in Latin America. It is noteworthy that in Latin America the vast majority (82 percent) of the extreme rural poor live in or around forest and savannah areas.

Table 1: Distribution of the rural population living on less than USD 1.25 per day and residing in or around tropical forests and savannahs

	Africa	Latin America	Asia	Total Tropics
Forest population (millions)	284	85	451	820
Forest population living on under USD 1.25 per day (millions)	159	8	84	251
Forest population living on under USD 1.25 per day as a percentage of the total population living on under USD 1.25 per day	50%	82%	27%	40%

4. Non-wood forest products (NWFPs) provide food, income and nutritional diversity for an estimated one in five people around the world, notably women, children and others in vulnerable situations; however, there is a lack of comparable data on edible NWFPs in terms of their nutritional value and their role as safety nets to increase resilience when other food is scarce.

5. SOFO 2018 highlights two examples in the region of the importance of having tenure rights clearly defined and ensured to increase income from forest activities. In Guatemala, more than 420 000 hectares of land within the Maya Biosphere Reserve are managed by community-owned forest enterprises through forest land leases. In 2006-2007 these enterprises generated income from certified timber sales (USD 4.75 million) and NWFPs (USD 150 000), creating jobs for more than 10 000 people directly and 60 000 indirectly. These employees were paid more than the regional prevailing wage². In Mexico, following the formal recognition of the full rights of communities to their forests (other than the sale of land) and the implementation of a programme to promote the development of forest-based enterprises between 1992 and 1997, over 2 300 community groups now manage their forests for timber. Some communities are now skilled in managing complex industrial operations and have become internationally competitive³.

6. The report highlights the importance of agroforestry since trees outside forests – including trees on farms – can serve as crucial safety nets and complement agricultural activity by diversifying production and providing ecosystem services. Within the framework of the K'atun 2032 National Development Plan, Guatemala has implemented forest-based programmes, among them, a smallholder forestry and agroforestry programme targeted at poor forest users without legal tenure.

Gender equality and the empowerment of women (SDG 5)

7. Many women are actively involved in forestry activities such as gathering firewood, medicinal plants and other NWFPs, as well as gathering food for household consumption. Moreover, women have developed a rich local knowledge about forest biodiversity that can offer them a unique opportunity to participate meaningfully in public policy processes. However, most work undertaken by women is in the informal sector and women often get paid less than men. Furthermore, the formal

¹ Rural Development Report 2016: Fostering inclusive rural transformation. International Fund for Agricultural Development (IFAD), Rome; Chomitz, K.M., Buys, P., de Luca, G., Thomas, T.S., & WertzKanounnikoff, S. 2007. Overview: At loggerheads? Agricultural expansion, poverty reduction, and environment in the tropical forests. The International Bank for Reconstruction and Development/ The World Bank: Washington, DC.

² Roots of resilience: growing the wealth of the poor. 2018. World Resources Institute in collaboration with United Nations Development Programme, United Nations Environment Programme and World Bank. Washington, DC.

³ Consejo Civil Mexicano para la Silvicultura Sostenible. 2014. New evidence that Mexico's community forests protect the environment, reduce poverty, and promote social peace. CCMSS, Mexico City.

forest sector as well as the decision-making at all levels is still a male domain: government forest departments are characterized by a male-dominated workforce⁴. After the Fourth World Conference on Women in Beijing (1995), many countries started to appoint gender focal points in sectoral development ministries, including forestry. An analysis by the International Union for the Conservation of Nature (IUCN) in 2015 showed that out of 65 countries surveyed, 17 (26 percent) had appointed gender focal points in their forest ministry. The figure from ministries of agriculture is more encouraging, with 57 percent having employed gender focal points⁵.

8. Despite women's heavy involvement in forestry activities, data on the overall contribution of forests to gender equality are inadequate. There is currently a major focus of research on social participation, but limited attention is given to economic empowerment, especially regarding access to business capacity-building or financing opportunities. SOFO 2018 highlights the need to investigate further on issues such as women's access to forest rights and the impact on gender equality, as well as their empowerment in transitioning from the informal and subsistence sector to the formal sector and political level.

Sustainable management of water (SDG 6)

9. Forests are an integral part of the water cycle. They also filter water, reduce soil erosion and sedimentation, pump water into the atmosphere and provide much of the drinking water for more than one third of the world's largest cities. According to FAO's Global Forest Resources Assessment 2015 (FRA 2015), 31 percent of the world's forests are managed for the purpose of protecting the soil and water.

10. However, the water-related ecosystem services provided by forests are often undervalued, partly due to their complexity. More information is needed on the forest-water relationship for different ecosystems and at different spatial and temporal scales. Understanding the impacts of forest management on water, including forest loss, restoration and afforestation, is necessary for the development of forest-related measures that can contribute effectively to SDG 6.

11. In spite of these complexities, SOFO 2018 highlights the case of Lima, Peru, in the implementation of "green" infrastructure to address the population's growing demand for water, which exceeded its renewable supplies during the dry season. In view of this situation, triggered in part by the drastic reduction in the original tree cover, responsible local and national authorities joined forces with civil society organizations and international cooperation agencies to develop and implement a series of governance and funding mechanisms to address the problem, which included: i) a mechanism for compensating for the introduction of green infrastructure with ecosystem services, for example, reforestation, wetland restoration, reintroduction of infiltration canals and improved pastoralism, and ii) a Green Infrastructure Master Plan that reached an agreement with the city's water utility authority to earmark 5 percent of its water tariff, an estimated at USD 110 million between 2015 and 2020, for addressing water management⁶.

⁴ Gurung, J. D. 2002. Getting at the heart of the issue: challenging male bias in Nepal's Department of Forests. *Mountain research and development*, 22(3): 212–215.

⁵ The number of countries surveyed includes seven OECD countries, four in non-OECD Europe, six in Latin America and the Caribbean, 15 in Asia and the Pacific, 15 in sub-Saharan Africa, and 15 in the Near East and North Africa. *Environment and Gender Index. 2015. Source: Gender Focal Points and Policies in National Environmental Ministries. Environment and Gender Index Brief September 2015. IUCN Global Gender Office, Washington, DC.*

⁶ SEDEPAL and AQUAFONDO seek ecological recovery of rivers Rímac, Chillón and Lurín. SEDEPAL Press Release N° 46 -2016: SEDAPAL y AQUAFONDO buscan recuperación ecológica de ríos Rímac, Chillón y Lurín).

Access to affordable energy (SDG 7)

12. Forests and trees provide woodfuel for cooking, heating and industrial needs (including power generation and cogeneration of heat and power) and by protecting watersheds to enable hydropower generation.

13. According to SOFO, 2014, roughly one-third of the world's population (around 2.4 billion people) use wood to cook, boil water and heat their homes. The proportion of people who depend on woodfuel varies from 63 percent in Africa to 38 percent in Asia and 16 percent in Latin America. Forests provide roughly 40 percent of the world's renewable energy in the form of woodfuel; as much as solar, hydroelectric and wind power combined. Approximately 50 percent of the roundwood extracted from forests worldwide (around 1 860 million cubic metres) is used as fuel, for cooking and heating households, for small industrial activities (such as brick making and tea processing) and, to a lesser degree, to generate electricity.

14. Global production of charcoal, which has seen an increase in consumption of roughly 20 percent during the last decade, corresponds to approximately 17 percent of woodfuel extracted from forests. Most of this is produced in Africa (62 percent), followed by the Americas (19.6 percent) and Asia (17 percent)⁷. Where the demand for charcoal is high, mainly in sub-Saharan Africa, Southeast Asia and South America, charcoal production puts pressure on forest resources and contributes to degradation and deforestation, especially when forest access is unregulated. The contribution of plantations, hedging or similar shrub for producing firewood that do not cause natural forest degradation should also be underscored.

Decent work, economic growth and sustainable tourism (SDG 8)

15. Forests and their value chains are of critical importance for sustainable economic growth and full, productive and decent work for all, particularly in remote rural areas. Although there is a lack of reliable information about the informal forest sector, it has been estimated to provide between 40 and 60 million jobs (Agrawal et al., 2013; FAO, 2014⁸), which include small-scale logging and wood processing, charcoal production and processing, and the collection and processing of NWFPs.

16. Forest-based tourism can make an increasing contribution to SDG Target 8.9 that refers to promoting sustainable tourism. There are good examples of countries, such as Costa Rica, that have used forests to enhance their appeal for tourists. Expenditure in 2016 in this country by visitors who stated ecotourism as their main reason for visiting the country is estimated to be 4.4 percent of the country's Gross Domestic Product (GDP). Experts suggest that nature-based tourism accounts for approximately 20 percent of the global market, and that this sector is growing three times faster than the tourism industry as a whole⁹.

Sustainable cities (SDG 11)

17. The benefits of green spaces and trees in urban areas are increasingly well-recognized. For example, children living in areas with good access to green spaces have been shown to have a lower prevalence of obesity compared to those with limited access. Urban forests and trees also provide

⁷ FAO 2017. FAOSTAT. FAO. Rome. Available at <http://www.fao.org/faostat/en/#home>

⁸ Agrawal, A., Cashore, B., Hardin, R., Shepherd, G., Benson, C. & Miller, D. 2013. Economic Contributions of Forests. Background paper prepared for the tenth session of the United Nations Forum on Forests held in Istanbul, 8-19 April 2013; FAO. 2014. State of the World's Forests 2014: Enhancing the socioeconomic benefits from forests. Rome.

⁹ Instituto Costarricense de Turismo (ICT). Macroproceso de Planeamiento y Desarrollo. Encuestas de No Residentes aéreas y terrestres: <https://www.ict.go.cr/es/estadisticas/encuestas.html>.

aesthetic, socio-cultural, environmental and biological diversity benefits. However, measuring and valuing such benefits remains challenging.

18. Given the rapid rate of urbanization in many countries, it is vital that the value of forests and trees as a key component of urban green spaces be fully integrated in urban planning at an early stage. SOFO 2018 presents the case study of Tijuca National Park, in Rio de Janeiro (Brazil), and highlights the value of protected urban areas in supplying cities with key ecosystem services and providing city residents opportunities to experience nature. The park now offers an outstanding natural setting for its 2.5 million annual visitors, and the restored Atlantic Forest is a sanctuary of species diversity and endemism¹⁰.

Sustainable consumption and production (SDG 12)

19. Renewability, resource use efficiency and responsible sourcing of forest products are at the heart of the concept of sustainable production and consumption. In this regard, the potential of second-generation biofuels and bio-based material that can substitute fossil-based fuels and products, and the promotion of wood products for construction is also underscored.

20. The wood processing sector has made considerable progress globally: although sawn wood and wood panel production grew by 8.2 percent per year between 2000 and 2015, this required only a 1.9 percent growth in input from industrial roundwood. Meanwhile, per capita consumption of wood-based panels, which are more efficient in terms of wood utilization, grew 80 percent, while sawn wood consumption remained static. There has also been reduced waste in the paper sector, with a doubling in the paper recovery rate, which grew from 24.6 percent in 1970 to 56.1 percent in 2015¹¹.

21. Meanwhile, the share of wood products that the Forest Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification (PEFC) certify as coming from sustainably-managed forests has also increased and now represents 38 percent of global industrial roundwood production¹². The role of the Forest Law Enforcement, Governance and Trade (FLEGT) initiative, which aims to reduce illegal logging by strengthening sustainable and legal forest management to ensure only legal timber or wood products are sold in European Union, is also highlighted.

Climate change mitigation and adaptation (SDG 13)

22. The role of forests in climate change mitigation is well recognized. According to the IPCC, the agriculture, forestry and land use sector is responsible for approximately one quarter (10-12 GtCO₂eq/yr) of anthropogenic greenhouse gas emissions, mainly from deforestation and agricultural emissions from livestock, soil and nutrient management¹³.

23. According to an FAO analysis of crops, livestock, forestry and fisheries sectors in nationally determined contributions (NDCs) in Latin America and the Caribbean (LAC), 88 percent of countries have mentioned mitigation measures in land use, land-use changes and forestry. They specifically

¹⁰ Trzyna, T. 2014. Urban protected areas: profiles and best practice guidelines. Best Practice Protected Area Guidelines Series No. 22, IUCN, Gland, Switzerland. xiv + 110pp.

¹¹ UNECE-FAO, 2010. Forest product conversion factors for the UNECE region. Geneva Timber and forest discussion paper 49, UNECE Timber Section, Geneva, Switzerland.

¹² PEFC. 2017. Double certification on the rise, joint PEFC/FSC data shows.

¹³ Smith, P., Bustamante, M., Ahammad, H., Clark, H., Dong, H., Elsiddig, E. A., Haberl, H., Harper, R., House, J., Jafari, M., Masera, O., Mbow, C., Ravindranath, N. H., Rice, C. W., Robledo Abad, C., Romanovskaya, A., Sperling, F. & Tubiello, F. 2014. Agriculture, Forestry and Other Land Use (AFOLU). In: Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change.

mention measures and policy to reduce deforestation (56 percent), forest management (44 percent), forest restoration (28 percent) and afforestation and reforestation (47 percent)¹⁴.

24. This analysis also shows that 90 percent of countries in the region have mentioned adaptation actions related to forestry and forests in their NDCs. National climate change adaptation plans and country strategies for disaster risk reduction include, among others, actions and measures that refer to reforestation and rehabilitation of degraded forest areas; afforestation to mitigate floods; agroforestry; the conservation and restoration of mangroves in coastal areas to provide protection against storms, cyclones and tsunamis; and integrated management of forest fires and pests.

Sustainable forest management (targets 15.1, 15.2 and 15.b of SDG 15)

25. According to FRA 2015, between 1990 and 2015, the world's forest area decreased from 31.6 percent to 30.6 percent, but the pace of loss has slowed in recent years. The largest forest area loss occurred in the tropics, particularly in South America and Africa. In some parts of Asia, North America and Europe, the forest area has increased since 1990 due to large-scale afforestation programmes and the natural reversion of abandoned agricultural lands back to forests. According to the SDG Report 2017¹⁵, average worldwide coverage of terrestrial Key Biodiversity Areas by protected zones increased from 35 percent to 47 percent between 2000 and 2017; in LAC, this proportion increased from 29 percent to 38 percent.

26. The indicator to measure progress towards sustainable forest management consist of five sub-indicators, reflecting: i) forest area net change rate; ii) above-ground biomass stocks; iii) proportion of forests area in legally established protected areas; iv) proportion of forest area under long-term management plans, and v) certified forest area. According to the SDG report 2018¹⁶, there was zero or minimal change in LAC in i) and a positive trend for the other four sub-indicators.

27. With respect to resource mobilization for sustainable forest management, in 2015, official development assistance (ODA) disbursement on forestry was about USD 800 million (less than 1 percent of total ODA). Although net ODA disbursement on forestry has increased since 2000, there are annual differences and its proportion of total ODA has decreased¹⁷.

Halt degradation and invest in land restoration (target 15.3 of SDG 15)

28. Tackling forest degradation can be important for addressing problems of land degradation, however, it is difficult to measure forest degradation or detect it in a consistent manner through remote sensing. Despite these difficulties, the contribution of this SDG target of reducing forest degradation is reflected in the Bonn Challenge and Aichi Target 15 of the Convention on Biological Diversity. In Latin America and the Caribbean, the Initiative 20x20 wants to bring 20 million hectares of degraded land into restoration by 2020. Furthermore, many countries in the region are establishing policy measures and implementing action to measure and reduce forest degradation to quantify and reduce CO₂ emissions through the REDD+ mechanism.

Halt the loss of biological diversity (targets 15.1, 15.4, 15.5, 15.9 and 15.a of SDG 15)

29. Although forests are among the most important habitats for terrestrial biological diversity, there are difficulties in quantifying this contribution. Indicator 15.1.2 measures the proportion of important sites for terrestrial biodiversity that are covered by protected areas, but the contribution of forests cannot be determined as this indicator is not yet disaggregated by ecosystem type. Similarly, much of the

¹⁴ [The agriculture sectors in the intended nationally determined contributions: Analysis](#). FAO, 2016.

¹⁵ The Sustainable Development Goals Report 2017. Available at <https://unstats.un.org/sdgs/files/report/2017/thesustainabledevelopmentgoalsreport2017.pdf>.

¹⁶ The Sustainable Development Goals Report 2018. Available at <https://unstats.un.org/sdgs/files/report/2018/TheSustainableDevelopmentGoalsReport2018-EN.pdf>.

¹⁷ FAO 2018. State of the World's Forests. Calculated with 2017 AIDmonitor data.

biodiversity of mountain areas is found in their forests, but indicator 15.4.1 on protected areas for mountain biodiversity does not yet have information by ecosystem type. As at least 50 percent of the world's species are thought to be hosted by tropical forests, it has been suggested that indicator 15.5.1 on the Red List Index should separately identify the extinction risk for forest-dependent species.

Information and data gaps

30. While assessing the contribution of forests and trees to achieving some targets from ten SDGs, SOFO 2018 also highlighted a number of weaknesses and gaps related to available knowledge, methodology and data availability and quality that need to be addressed to improve understanding of physical, biological and socio-economic relationships or interlinkages. These gaps can be met, for instance, by improving investigation and/or data on:

- Forestry contributions to eradicating poverty and to livelihoods;
- Contribution of forests to food security and nutrition;
- Employment related to the forest sector, including formal small and medium enterprises and in the informal sector;
- Gender, including gender-disaggregated data on forest management, tenure, utilization, employment and education, and decision-making role of women;
- Wood-based energy, including collection, use and trade of woodfuel;
- The contribution of forest ecosystems to biodiversity and ecosystem services, specially forest-water relationships, and causes and impacts of forest degradation; and
- The availability in cities of accessible green space with tree cover.

III. Pathways to Sustainable Development

31. *Addressing agriculture and forests together in formulating national development policies is critical to achieving the SDGs.* Recognizing these trade-offs and finding a balance between them – especially between short-term and long-term benefits, local and global public goods, and the different communities and sectors – will allow policymakers to better direct resources that can accelerate achievements across the 2030 Agenda.

32. *Strengthening legal frameworks that recognize and secure the rights of local communities and smallholder access to forests and trees by will contribute to the achievement of the SDGs.* Lessons must be learned from successful experiences in community forest management, recognizing the importance of scientific and technical support, training and information, capacity building and access to markets, adequate financial resources and the need for clarity in setting out the rights and responsibilities of all parties. The Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests can contribute to this work.

33. *Access to land, resources and investments in and around forests can propel women, youth and other rural entrepreneurs to be agents of change.* Strengthening tenure and access rights presents an opportunity to enhance gender equitable access, as well as encouraging a sustainable approach to forest management. The enterprise and energy of youth is just as vital for the future of the sector. Investment in training and innovation, improving employment conditions, capacity-building, the development of producer organizations and increasing economic activity can help persuade young people and women to see the value of making a living by the forest and resist uncertain migration.

34. *An enabling environment is fundamental for attracting the private sector to pro-sustainability activities.* Both the formal and informal forestry sectors include large numbers of small and micro enterprises, while at the other end of the scale there are some very large companies. These different scales require different approaches and prioritization; policy interventions are likely to include a mix of regulatory approaches and incentives. Partnerships with the private sector will be crucial in developing

private governance initiatives such as voluntary certification schemes and commitments to ‘zero-deforestation’ supply chains.

35. *Stakeholder engagement and a commitment to good governance are fundamental to effective policy implementation.* The right of stakeholders to be consulted during the development of forest-related policies, programs and plans should be formalized to account for the needs of forest users and other stakeholders. Along with a sound policy and legal framework, effective institutions are key to good governance. The institutional framework should encompass local communities, civil society organizations and responsible private sector interests, as well as government departments and agencies. This may require building the capacity of organizations that support indigenous peoples, local communities, and small-scale farmers, as well as strengthening public sector organizations.

36. *To accomplish the ambitious 2030 Agenda, sector ministries are expected to apply an integrated approach, change the way they work and to coordinate policies across government.* If sustainable development is to be realized, initiatives on forests, agriculture, food, land use, rural and national development must synchronize in the future. Although drivers vary considerably between countries and regions, policymakers must recognize the need to manage trade-offs and set out concrete measures for better aligning multiple objectives and incentive structures. Establishing multi-sector platforms that involve other stakeholders working in dialogue on natural resource use and management is one way to of managing cross-sectoral coordination and overcoming difficulties in governments that have sector-based ministries and agencies.

37. *Investing in effective monitoring at national and sub-national levels will offer countries vital information on which groups of people or areas of the country they need to focus on.* This will help policymakers calculate incentives, manage inter-sector trade-offs, design and implement forest and food security initiatives, measure out social security nets and determine the level of support needed for different sectors of the economy.

IV. Points for consideration

38. The Regional Forestry Commission may wish to invite countries to:

- Promote integrated approaches to national development policies and strategies to harmonize sector policies and ensure coherence to meet the SDGs;
- Examine ways to improve data to provide evidence of the current and potential contribution of forests to the 2030 Agenda.

39. The Regional Forestry Commission may wish to request that FAO:

- Assist countries in enhancing the role of forests in support of more effective implementation of the SDGs, for instance:
 - Support countries to develop and implement actions, instruments and comprehensive policies that contribute to national climate change mitigation and adaptation strategies related to the forest sector and interrelated sectors.
 - Establish mechanisms for consultations to foster the integration of biodiversity in forestry practices and management of natural forests and protective woodlands.
 - Support countries to monitor progress towards the SDGs by providing instruments and methodologies to generate better data and information.