State of Mediterranean Forest-2018

Chapter 1: Contribution of Mediterranean Forest to the Global Agenda First Draft (14 June 2017)

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Chapter 1. Contribution of Mediterranean Forest to the Global Agenda

In this section, information will be given on the role of forests in general, and Mediterranean forests in particular, on international commitments.

The "Sustainable Development Goals" (SDG) adopted in 2015 draws a general framework for international commitments and plays an umbrella. A significant part of the SDGs are related to forestry in some way.

Similarly, there are international commitments such as Rio Conventions (United Nations Framework Convention on Climate Change, United Nations Convention to Combat Desertification, and Convention on Biological Diversity).

Likewise international community has already agreed on some special forestry arrangements like the first "UN Strategic Plan (2017-2030) for Forests¹", Six Global Forest Goals², Durban Declaration³. The Mediterranean Region has also made important work on the integration of Mediterranean forests and forestry into the global system, mainly led by Silva Mediterranea.

Some of them are listed below⁴;

- i. The Strategic Framework on Mediterranean Forests, 2013
- ii. Tlemcen Declaration-Algeria, 2013
- iii. The State of Mediterranean Forests, 2013
- iv. The opinion paper "Mitigation And Adaptation Potential Of Mediterranean Forests To Climate Change", Barcelona, 2015
- v. Agadir Commitment, Morocco, 2017
- vi. The Mediterranean Forest Weeks⁵
- vii. The Collaborative Partnership on Mediterranean Forests
- viii. AFMS Initiative

In this section, a general evaluation has been made on the contribution of the forestry sector to international targets. The ecological characteristics of the Mediterranean region, the structure that is more sensitive to climate change than other regions and the great potential that the Mediterranean ecosystem carries for adaptation are emphasized. Some contributions at national level on forest restoration are also mentioned.

KEY WORDS: Sustainable Development Goals, UNFCCC, CBD, Biodiversity hotspots, climate change hotspots, forests and forestry sector

¹ http://aims.fao.org/activity/blog/first-un-strategic-plan-2017-2030-forests

² http://www.un.org/esa/forests/news/2017/01/six-global-forest-goals/index.html

³ http://www.fao.org/fileadmin/user_upload/wfc2015/Documents/Durban_Declaration_draft.pdf

⁴ http://www.fao.org/forestry/silva-mediterranea/88922/en/

⁵ http://www.fao.org/forestry/silva-mediterranea/89594/en/

a) Forests and Sustainable Development Goals

The "Sustainable Development Goals" adopted in 2015 draws a general framework for international commitments and plays an umbrella role. A significant part of the SDGs are related to forestry. This issue was also addressed in the 23^{rd} Committee on Forestry meeting, which was convened in Rome in July 2016^6 .

SDGs that are somehow related to forestry listed below:

- 1. Goal 1: End poverty in all its forms everywhere
- 2. Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture
- 3. Goal 6: Ensure availability and sustainable management of water and sanitation for all
- 4. Goal 7: Ensure access to affordable, reliable, sustainable and clean energy for all
- 5. Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
- 6. Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable
- 7. Goal 13: Take urgent action to combat climate change and its impacts
- 8. Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
- 9. Goal 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
- 10. Goal 17: Strengthen the means of implementation and revitalize the global partnership for sustainable development

If we look at these goals and associated targets and forestry issues in detail:

Goal 1. End poverty in all its forms everywhere

With SDG1, it is aimed to "reduce the proportion of men, women and children of all ages living in poverty by at least half of all dimensions according to national definitions up to 2030". According to the World Bank figures⁷, an estimated 1.3 billion people, about 20 % of humanity, need forests and forest products for their livelihoods. The majority of them earn less than 1.25 US \$ a day. According to international definitions: people earning less than US \$ 1.90 a day are considered poor.

This also applies to the Mediterranean region. According to the report "Turkey: Forestry Sector Review⁸" published by the World Bank in 2001, the first threat in forest areas was identified as poverty. It has been determined that people living in and around the forests are poorer than the country average. This situation is almost the same for many other countries.

⁶ Forests, Food Security, Hunger And Poverty Eradication: Fao's Work On The Sustainable Development Goals And The Role Of Forests-http://www.fao.org/3/a-mq579e.pdf

⁷ http://www.profor.info/poverty

⁸ http://documents.worldbank.org/curated/en/515421468316457849/Turkey-Forestry-Sector-Review

Forests support humanity in many ways. It serves as a kind of "life support unit". These include: employment opportunities, food security, heating and cooking, wood and non-wood forest products, grazing, ecosystem services etc. However, integration of these contributions into national and international accounts and methodologies should be determined. There are many studies carried out by the World Bank in this regard.

Some of them could be shown like below:

- a) Understanding Forests' Contribution to Poverty Reduction⁹-
- b) Turkey Forest Villages: Socioeconomic study of forest villagers to better understand the causes of out-migration, forest dependence and poverty¹⁰
- c) Integrated Landscape Management In Tunisia¹¹
- d) Private and Community Forestry Developing Livelihoods on the Basis of Secure Property Rights (Serbia, Macedonia, Albania)¹²

People who depend on the forest in their lives are deprived of social protection systems and financial and technical support. Agricultural supports often do not reach these segments. These people and sustainable forest management play a key role in implementing policies and programs to achieve SDG1 goals and to finish them in all aspects of poverty.

Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture

With SDG2, it is aimed to "provide everyone with access to safe, nutritious and satisfactory food throughout the year, especially those who are vulnerable, including the poor and infants, until 2030".

There is a very serious link between forests and food security. Forests, trees and agroforestry systems have contributed in many ways to food safety and nutrition of the people in rural areas particularly.

Millions of people rely on forests for food quality. Edible crustaceans, mushrooms, fruit, plants, medicinal and aromatic plants, game and edible insects could be considered amongst to Forest-based food systems. They are also very important source of income¹³.

These have strengthened the resilience of the people who are living their lives based on the forest, especially when there are climatic and economic uncertainties. FAO calls these forest foods (as well as inedible forest resources) "non-wood forest products-NWFP".¹⁴.

http://www.profor.info/content/understanding-forests%E2%80%99-contribution-poverty-reduction

¹⁰http://www.profor.info/knowledge/turkey-forest-villages-socioeconomic-study-forest-villagers-better-understand-causes-out

¹¹ http://www.profor.info/knowledge/integrated-landscape-management-tunisia

¹² http://www.profor.info/knowledge/private-and-community-forestry-developing-livelihoods-basis-secure-property-rights

¹³ İsmail Belen, Chestnuts in Turkey: brief introductory paper about chestnut in Turkey especially as a non-wood forest product, http://www.fao.org/docrep/004/y3660e/y3660e05.htm#P1398_260616

However, these contributions generally do not adequately reflected at national development plans and food safety strategies. Due to the lack of coordination among sectors, the critical impact of forests on food safety and nutrition is lacking in political decisions¹⁵.

The same applies to SDG2. There is no emphasis on "the role of forests in food safety" in SDG2. On the other hand, this function of forests is not mentioned in SDG15.

A similar situation is seen in the national legislation of the countries. Looking at the example of Turkey, "food safety" in forestry legislation does not take place under this name. However, reference is made to food safety under other names.

For example, in the first article of the Forest Law, forests are defined as "Naturally grown or labor-grown trees, shrub communities are counted as forests along with their places"

Based on this, forest trees such as olive, walnut, chestnut, and pistachio naturally grown in the forest were subject to private afforestation and supported by credit with special circumstances.

In 2011, the duties of the General Directorate of Forestry were redefined. In this context, "Non-wood Product and Services Department" has been established with regard to "food production".

In the Law No. 3234 on Organization and Duties of the General Directorate of Forestry, the following points are related to food.

- "Products and services provided by forest ecosystems",
- "To support the production of wood and non-wood forest products in forest villagers and to contribute to the development of the industry based on them",
- "To protect and develop forest water resources, to follow the issues related to hunting and wildlife, grazing and beekeeping in forests"

The following studies have been carried out in this context to strengthen the role of forests in food safety.

- Truffle Mushroom Forest Action Plan ¹⁶
- Gum Tree (Pistacia lentiscus) Forest Action Plan 17
- Chestnut Forest Action Plan¹⁸
- Carob (Ceratonia siliqua) Forest Action Plan
- Almond (Amygdolus communis) Forest Action Plan
- Honey Forest Action Plan ^{19; Ayan et. al. 2014; Ünal et. al. 2017.}

¹⁴http://www.fao.org/forestry/news/93200/en/

¹⁵ http://www.fao.org/forestry/food-security/en/

¹⁶ https://www.ogm.gov.tr/Lists/Haberler/Attachments/606/Tr%C3%BCf%20Eylem%20Plan%C4%B1.pdf

¹⁷https://www.ogm.gov.tr/ekutuphane/Yayinlar/Sak%C4%B1z%20Eylem%20Plan%C4%B1.pdf

¹⁸ https://www.ogm.gov.tr/Lists/Haberler/Attachments/457/KESTANE%20EYLEM%20PLANI.pdf

Walnut Forest Action Plan ²⁰

Pine honey is a very special non-wood forest product in Mediterranean region especially for Greece and Turkey²¹. Also chestnut gives important financial support to Turkish forestry sector²².

For food safety it is extremely important that the cattle and sheep are grazed in the forests. Article 17 of the Forest Law No. 6831 regulates grazing activities in the forests.

Similarly, the argan tree (Argania spinosa) and the food products produced from it are vital for Morocco. ²³.

On the other hand, "food safety" is becoming a "security problem" for the Mediterranean region. NATO is starting to work on this issue ²⁴.

The role of forests in food safety should be given more in national and international regulations, especially SDGs.

The conclusions of the International Conference on Forests for Food Security and Nutrition was held on 13-15 May 2013, which was organized by FAO in partnership with Bioversity International, the Center for International Forestry Research, the World Agroforestry Centre and the World Bank, must be used for this context²⁵.

Goal 6: Ensure availability and sustainable management of water and sanitation for all

SDG6 aims "By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes"

Forest and water are inseparable parts of each other. It's complementary to each other. ²⁶.

Forested watersheds and wetlands supply 75% of the world's accessible fresh water for domestic, agricultural, industrial and ecological needs

AYAN, S., AYAN, Ö., ALTUNEL, T., YER, E.N., 2014. Honey Forests As An Example Agroforestry Practices In Turkey, Forestry Ideas, 20: 2 (48) 141-150.

ÜNAL S., AYAN S., KARADENİZ M., YER E. N. 2017. Some forest trees for honeydew honey production in Turkey // Sibirskij Lesnoj Zurnal (Siberian Journal of Forest Science). N. 4: ... (in English with Russian abstract).

¹⁹https://www.ogm.gov.tr/ekutuphane/Yayinlar/Bal%20Orman%C4%B1%20Eylem%20Plan%C4%B1%20%28 2013-17%29.pdf

²⁰ https://www.ogm.gov.tr/ekutuphane/Yayinlar/Ceviz%20Eylem%20Plani.pdf

²¹ İsmail Belen, A Unique Non-Wood Forest Product: Pine Honey, http://www.carfu.org/?p=524

²² İsmail Belen, Chestnuts in Turkey: brief introductory paper about chestnut in Turkey especially as a non-wood forest product, http://www.fao.org/3/a-y3660e/y3660e05.htm#P1398 260616

²³http://medomed.org/wp-

content/uploads/2013/04/Contribution of forests to a green economy in MENA.pdf http://newsroom.unfccc.int/unfccc-newsroom/nato-lawmakers-warn-climate-change-will-trigger-foodshortages/
25 http://www.fao.org/forestry/food-security/83804/en/

²⁶http://www.fao.org/forestry/communication-toolkit/76377/en/

About one-third of the world's largest cities obtain a significant proportion of their drinking water directly from forested protected areas.

On the other hand, the water issue is increasingly felt in araes as social, economic and environmental. According to the Risk Report prepared for the World Economic Forum in 2014, water scarcity is among the three most important risks in the world.

The water issue is more vital for the Mediterranean region. Today, the Mediterranean Region is among the poorest regions of the world. To date, the region is home to 5% of the global population, while it can reach only 1% of the world's renewable water resources.²⁷.

It has been estimated that 63 million Mediterranean people will suffer water shortage with an annual rainfall less than 500 m³ per person per year in 2025. ²⁸. Over the past 25 years, precipitation has been observed to decrease by 20% in the Mediterranean Basin.

In order to achieve SDG6 goals, Mediterranean forests must be managed on the basis of scientific bases. More attention should be paid to the sustainable management of these basins, taking into account that 75% of potable water is supplied from forestry watersheds and wetlands.

In addition to other measures, forest road construction and other infrastructural activities should be carried out in a manner that does not interfere with the flow of in-forest water ²⁹.

In recent times, the place and importance of forests in the water cycle has become more apparent. It is foreseen that more forest areas will be separated for water harvesting purposes in the coming period. As of today, 16% of Turkey's forests are settled as hydrological functional forests. In these forests there is a technical intervention in the production of clean water.

The role of watersheds in water harvesting is important. On the other hand, it is also important to use waste water in forestry activities. It is also very important that the wastewater is cleaned and reused in natural environments like forests³⁰.

On the other side, the plantation methods and species used should be planned to use the least amount of water. More careful planting should be done especially in afforestation of drinking water basins. Contrary to general appeal, "trees do not bring water, use water in the ground"

²⁸http://www.efi.int/files/attachments/publications/efi what science can tell us 1 2011 en.pdf

²⁷ NATO Parliamentary Assembly SCIENCE AND TECHNOLOGY COMMITTEE FOOD AND WATER SECURITY IN THE MIDDLE EAST AND NORTH AFRICA- http://www.nato-pa.int/default.asp?CAT2=0&CAT1=0&CAT0=0&SHORTCUT=4535

²⁹ Caglar, S., Acar, H.H., 2006, An Evaluation on the Environmental Effects Induced by the Rock Blasting Forest Road Construction at Rock Areas in Turkey, Proceedings of The 29th Council on Forest Engineering Conference, Pp. 273-281, July 30-August 2, 2006, Coeur d'Alene, Idaho, USA. http://www.cofe.frec.vt.edu/documents/2006/COFE_2006_Caglar_Acar.pdf

^{30 2017} UN World Water Development Report, Wastewater: The Untapped Resource, http://www.unesco.org/new/en/natural-sciences/environment/water/wwap/wwdr/2017-wastewater-the-untapped-resource/

The introduction of sustainable water management principles that take into account the potential impacts of climate change in water basins is one of the most noteworthy studies in recent years. There is a need to model the interaction of underground and surface waters with respect to ecosystem components (especially forest ecosystems) in arid periods due to climate change.

Production activities carried out in the forests (wood harvesting) and operations carried out with machinery and equipment used for the transportation of wood raw materials have a negative effect on water basins. From this perspective; As the rivers are polluted with road constructions and production activities, as a result of filling the creek beds, the river regime is broken and floods and floods occur.

Goal 7: Ensure access to affordable, reliable, sustainable and clean energy for all

SDG7 aims to "significantly increase the share of renewable energy in global energy resources by 2030". Woods, or woods produced from trees outside the forest, are the most important sources of energy. Wood offers more energy than solar, hydro, or wind energy, and accounts for about 40 % of the global renewable energy resources available.

About 50% of global wood production (about 1.86 billion m³) is used as energy for cooking, heating and electricity generation. For 2.4 billion people, wood fuel means cooked and more nutritious food, hot water and a hot dwelling³¹.

Wood is considered the first energy source of human beings. Today, it is still the single most important source of renewable energy, which accounts for about 6% of the global total primary energy supply 32 . Forests and trees absorb solar energy and store it in the wood. This is the most used renewable energy source of the world.

Since the discovery of fire, wood has been used as a source of energy for heating houses and for cooking food. On the other hand, current scientific developments open up more applications such as converting wood waste into liquid biofuels fueling automobiles and aircraft. While more use of wood, harvested from sustainably managed forests, creates a balance for future generations, wood is the fuel of the future. In order to emphasize the forest-energy relationship, the theme of World Forest Day 2017 is "wood and energy" 33.

In 1973, when the world oil crisis was experienced, forests were regarded as an alternative energy source and energy forest plantations started to be established. Energy forests can be considered as an alternative source of multifaceted benefits. Transformation of the biomass obtained by fast growing species through planting and mechanical shoot harvesting will

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³¹http://www.fao.org/forestry/communication-toolkit/76374/en/

³²http://www.fao.org/forestry/energy/en/

³³ http://www.fao.org/international-day-of-forests/events/rome-event/en/

AYAN, S., SIVACIOĞLU, A. 2006. Review of the Fast Growing Forest Tree Species in Turkey, The Bulletin CIDEU, 2: 57-71.

contribute positively to both carbon emissions and global warming risk as well as cheaper ecological energy for climate and land available countries.

However, this positive development has not become widespread. As the main theme of the 2017 World Forest Day is determined as "wood and energy", energy forest plantations should be expanded and the government should make purchasing guaranteed incentives for the private sector to produce for this purpose.

17% of the wood produced worldwide is turned into "charcoal". It provides jobs for 40 million people. On the other hand, the demand for "charcoal" is increasing all over the world, especially in developing countries. For example, in the last 20 years, the production of charcoal in Africa has doubled compared to previous years. As long as immigration continues from rural to urban, this tendency is considered to increase. The use of charcoal is easier and cleaner according to normal untreated wood. Compared to gas and electricity, it is easier to reach.³⁴. However, the increase in the use of charcoal leads to degradation of forests, especially in large urban centers, and deforestation in some areas.

Approximately 3 billion people around the world do not have clean fuels and adequate technology to cook. Here, the vital role played by wood energy must be considered.

Charcoal is traditionally used for various purposes in Turkey. To meet the charcoal demand, charcoal burners are operated.

Malatya is one of the most important provinces in Turkey in terms of charcoal production. Charcoal production is an activity that does not harm forest and forestry works, contributes to employment, rural development and regional economy positively.

For this reason, it is important to examine the production process of charcoal from the technical, economic and social aspects, to identify the living problems and to develop suggestions. In this study, the process of production of wood charcoal in Malatya was evaluated using the data obtained from official records of various government institutions and organizations, field surveys and unstructured interviews with regard to the procurement of raw material, establishment of charcoal burners, carbonization and marketing, and the relationship of wood charcoal production with forest and forestry activities, its social and economic impacts were determined. According to the results, in the province of Malatya only about 3,000 tons of charcoal per year was produced on the basis of the production of firewood made from only legal way. This value was higher when the illegal productions were taken into account. The charcoal production contributed to rural development and the provincial economy a total of 2.700.000 TL annually and

ATMIŞ, E., ÖZDEN, S., LİSE W., 2007. Urbanization pressures on the natural forests in Turkey: An overview, Urban Forestry & Urban Greening 6:83–92.

ÖZDEN S., AYAN S.2016. Forest crimes as a threat to sustainable forest management // Sibirskij Lesnoj Zurnal (Siberian Journal of Forest Science). 2016. N. 4: 49–55 (in English with Russian abstract).

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³⁴ http://www.fao.org/news/audio-video/detail-audio/en/?uid=12099&utm_content=bufferf2fe5&utm_medium=social&utm_source=twitter.com&utm_campaig_

provided 57.600 man-days of employment. Also the bottlenecks experienced in charcoal production and some recommendations for improving the charcoal production process were put forward³⁵. (http://bartin.dergipark.gov.tr/barofd/issue/27137/299178)

Technical, Economic and Social Analysis of the Production of Wood Charcoal (Malatya Case), Bartın University Faculty of Forestry Journal, Güvenli, G., & Daşdemir, İ. (2017)

In the light of this data; It is not possible to achieve SDG7 targets without considering the role of forests. The role of forests in national policy on energy should be more prominent. Likewise, emphasis should be placed on the energy contributions of forests in forestry policies³⁶.

Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

With SDG 9, it is aimed to "increase the share of the industry and reach small scale industrial enterprises to financial services and markets".

Forestry is also an industrial activity. Pallets and wooden packaging, wood raw materials, sawn softwood, sawn hardwood, wood-based panels, paper, paperboard and woodpulp, wood energy, value-added wood products like furniture, housing and construction are amongs to forest and wood products related to industry³⁷.

The forestry industry is widespread in both large and small-sized enterprises. More than 60 million people worldwide are directly employed in forestry-related industries³⁸.

If we give an example from Turkey, there are also forestry related ones in the biggest industrial enterprises. Istanbul Chamber of Industry carries out "BEST 500 INDUSTRIAL ESTABLISHMENT SURVEY" every year. Within the list of 2015, there are 19 industrial enterprises operating in the MDF, Furniture, Paper industry sectors in relation to forestry³⁹.

³⁵ Technical, Economic and Social Analysis of the Production of Wood Charcoal (Malatya Case), Bartın University Faculty of Forestry Journal, Güvenli, G., & Daşdemir, İ. (2017)

³⁶ Ismail Belen, National Initiative and Strategy Development for Strengthening Utilization of Wood Energy in Turkey.

http://www.fao.org/fileadmin/user_upload/Europe/documents/Events_2010/Woodenergy/04belen_en.pdf

³⁷UNECE, Forest Products Annual Market Review 2015-2016, http://www.unece.org/index.php?id=43429

³⁸İsmail Belen, Supporting Forest Based Technology as Small and Medium-Sized Enterprises (SMEs) and Entrepreneurs- http://www.carfu.org/?p=357

³⁹http://www.gonder.org.tr/?p=6091

ATMIŞ, E., 2016. Development of urban forest governance in Turkey, Urban forestry & urban greening, 19: 158-166.

However, this industrialization and growth based largely on chip and paper raw materials has not been realized in the massive industry. This causes imbalance in the general forest products industry, which is fed from the same source.

Forest products, especially solid wood products, are very important in terms of resource utilization efficiency and value added production. It has the potential to provide serious contributions to employment and economic development. For this, the production of wooden building materials and the expansion of wooden structures should be supported. In this respect, it is necessary to develop guidelines and projects, and to make and update missing standards, codes and construction manuals.

Another example in Turkey is plastic window systems. The use of plastic window systems based on fossil materials has taken the place of wooden window systems in the last 25 years. As a result, significant employment, the use of natural renewable products and carbon storage have been lost, and fossil-based materials have become widespread, causing high carbon footprint and energy consumption.

The most important reason for this is that appropriate standards have not been established and application audit rules have not been regulated. In this regard, the document entitled "Promoting Sustainable Building Materials⁴⁰" prepared by UNECE can be used as a good reference source. Although some work from the other side, for example, the support given to the tourism, defense, agriculture industry is not given to the forestry sector at the same time.

The forests of the Mediterranean region are very important contributors to the "green economy" ⁴¹.

Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable

SDG11 is aimed at "building sustainable and durable buildings using safe, inclusive and accessible green and public spaces" and "local materials" in relation to forestry.

Cities are the center of ideas, trade, culture, science, production, social development and many other subjects. Today, 3.5 billion people, in other words, half of the world's population live in cities. It is envisaged that by 2030, 60% of the world will live in cities. It is predicted that 90% of the urban growths to be seen in the coming years will be in developing countries. On the other hand, it is thought that the population of the shanty which is about one billion today will increase.

Structures in cities are mainly dominated by reinforced concrete construction and this will be the primary building type for increasing population's need for housing. According to the census of the 2000 building in Turkey, only 37,000 (0.5%) is wooden constructions out of 8

⁴⁰ http://www.unece.org/index.php?id=43748

⁴¹http://medomed.org/wp-

content/uploads/2013/04/Contribution of forests to a green economy in MENA.pdf

million existing houses.

There is a wrong and unjust perception in the public that the use of wood is harmful to "forests and the environment". This is also the contribution of advertisements in the form of "we are saved from cutting down trees" which many companies in the sector use even.

Wood, obtained from sustainably managed forests, is the "greenest, most natural, carbon footprint lowest, domestic and renewable" energy source. The use of wood products obtained from forests managed in accordance with the silvicultural techniques should definitely be increased. Again, unlike widespread public opinion, there is no practice in many parts of the world, especially in the Mediterranean region, such as the emptying of large areas or "clear cuttings"

There are too many seedlings in the soil in the naturally grown forests.

As they grow, they need dilution and care. When the trees mature, more sunlight is needed for new youth to arrive. This natural balance makes wood an extremely important and unique material.

The use of wooden structures in the housing sector does not reduce forests and does not harm them. On the contrary, it is conducive to the maintenance of the forests and hence the obtaining of better quality forests.

The use of timber structures in the housing sector will actually increase the total number of trees as "tree agriculture" becomes common and laws on planting many trees for every single tree cut is enforced. In developed countries such as North America and many European countries, the use of wooden houses dominates the construction sector.

Pollutant cement and steel production requires intense energy and emits CO₂ to the atmospheric while reducing CO₂ emissions is important for sustainable cities.

Timber production is solar energy dependent and has CO_2 trapping capability with negative carbon footprint. Roughly, production of 1 m³ of timber uses 1 ton of CO_2 from the atmosphere; whereas, 1 m³ cement production releases 0.38 tons of CO_2 to air. Similarly 9.7 tons of CO_2 for steel and 24.3 tons of CO_2 is emitted for aluminum production. The Rum Orphanage, which is the largest European structure and the second largest wooden structure in Asia, is located in Büyükada, Istanbul, Turkey. The fact that this historic structure of about 120 years of age has been left to its fate for the last 50 years without any maintenance, is also a good example of the durability of timber structures. A TÜBİTAK research project conducted in METU Department of Civil Engineering about the performance of traditional Hımış structures, which is common in North Anatolia and partly in the Aegean and Central Anatolia regions, showed that it is durable against earthquakes. More than 90% of Turkey's area and population are located seismically active areas; therefore, wooden construction has additional advantages as well. It is known that solid wood elements are more durable than unprotected steel structures and timber structures may be further protected against fires.





Today, 3% of the world is made up of cities. However, 60-80% of energy consumption and 75% of carbon emissions occur in cities. Rapid urbanization is putting pressure on freshwater resources, sewage, habitat and public health⁴².

Forests and trees have great potential for "safe and green cities". Children who can easily reach green areas spend less time on television, computers and smartphones, reducing the risk of obesity by 11-19% (Dadvand et al., 2014).

Trees have cooler in summer and heating in winter. In cities, the shadows provided by trees have a 15-50% reduction in heating and cooling costs for residential and commercial buildings (Parker, 1983; Huang et. al., 1987).

City forests provide a living space for many birds, insects and other wildlife species. Reduces air pollution, contributes to the protection of soil ⁴³.

Urban forestry is the priority area of the Mediterranean region forestry. A working group on "Urban and Peri-urban Forestry" was established in Silva Mediterranea in 2012⁴⁴.

On the other hand, the legislation and practice of urban forestry is newly developing. When the Turkish case is examined, "green belt" afforestation has been carried out aiming at

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⁴²http://www.gonder.org.tr/?p=2169

⁴³ Guidelines on urban and peri-urban forestry, FAO FORESTRY PAPER 178, http://www.fao.org/3/a-i6210e.pdf

⁴⁴http://www.fao.org/forestry/80480/en/

greening the surrounding cities far from meeting the need for recreation until recent years. Pine trees were mainly used in these afforestation. In Turkey, pine trees are regarded as trees that represent the forest more. In recent years, public demand has increased and "urban forests", where not only the trees but also other social equipments, have started to be established. On the other hand, the previously made "green belt afforestation" has been diluted, social facilities have been added and it has been made to meet the need for recreation.

In 2011, the General Directorate of Forestry was redefined as "to determine, protect, operate and manage the recreational forests, urban forests, research forests, forest parks (arboretum), forest biodiversity conservation areas, model forests and conservation forest areas".

According to the "Recreational Areas Regulation" published in the Official Gazette dated 5 March 2013, urban forests / city forests are defined as follows.

"They are the areas designated for exploiting the health, sports, aesthetic, cultural and social functions of forests. At the same time, contributing to the beauty of the country is among the targets. Technical forestry activities, flora and fauna can also be introduced here. Scouting, trekking, cycling, horse riding and other activities can be organized especially for children and young people. Urban forests can include a country restaurant, a countryside café, a cultural home, a local product exhibition and sale place, an amphitheater, various mini sports fields and other facilities. City forests can be established at provincial and district centers".

"Guidelines on urban and peri-urban forestry", prepared and published by FAO in 2016, is considered very usefull for this issue. ⁴⁵.

In addition to the Urban Forests, in the context of preserving cultural heritage in the cities, the implementation of the Timber Architecture and its materials on the spot by using local wood materials will provide a more sustainable life to those cities and communities. There is a threat of extinction of historical works of wood, which is an important cultural heritage of the Mediterranean with its cultural and heritage.

The use of wood in multi-storey buildings and skyscrapers can be expanded by developing modern technologies. Thanks to new developments and applications, large timber buildings are getting safer, stronger and taller. They may also offer a way to slow down global warming⁴⁶.

The development of timber housing projects in which people can actually participate in their own housing construction using local materials in forest areas with the slogan "make their own house" will contribute to local development.

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⁴⁵http://www.fao.org/documents/card/en/c/e068e0d9-0c97-41c7-a856-05556a1bd10b/

⁴⁶ http://www.nature.com/news/the-wooden-skyscrapers-that-could-help-to-cool-the-planet-1.21992

Goal 13: Take urgent action to combat climate change and its impacts

With SDG13, it is aimed that "strengthening resistance to climate change, natural disaster and adaptation capacity and inclusion of measures for climate change into national policies, strategies and planning processes".

The world's forests play a central role in combating climate change by absorbing and storing carbon from the atmosphere in their vegetation and soils.

- Almost as much carbon is stored in forests (650 billion tons) as in the atmosphere (760 billion tons).
- Forests are crucial in helping us adapt to climate change as they help ensure water availability, protect against landslides, prevent desertification and provide alternative livelihoods for people.
- Protecting forests conserves the biodiversity that is vital for plants, humans and other animals to adapt to climate change.

Forests have four major roles in climate change: their clearance, overuse and degradation contribute about one-sixth of global carbon emissions; they react sensitively to a changing climate; when managed sustainably, they produce woodfuels as a benign alternative to fossil fuels; and finally, they have the potential to absorb about one-tenth of global carbon emissions projected for the first half of this century into their biomass, soils and products and store them - in principle in perpetuity⁴⁷.

The Mediterranean Region as a whole is one of the most sensitive regions to climate change. The Mediterranean Basin every year loses between 0.7 and one million hectares of forests due to fires, corresponding to an economic loss of an estimated €1 billion. The Mediterranean region is confronted with a considerable increase in longer and more frequent drought and heat waves, resulting in the growing risk of large scale forest fires as well as more water scarcity, affecting both rural and urban populations⁴⁸.

Many studies, initiatives and projects have been carried out for the adaptation of the Mediterranean Region forests to climate change. Some of these are shown below.

- 2016 Strengthened Action in Favor of Forests in the Mediterranean-Sahel Region in the Context of Climate Change" (AFMS)⁴⁹.
- 2015 The opinion paper "Mitigation And Adaptation Potential of Mediterranean Forests to Climate Change 50"
- Integrated Approach to Management of Forests in Turkey, with Demonstration in High Conservation Value Forests in the Mediterranean Region⁵¹

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⁴⁷http://www.fao.org/forestry/communication-toolkit/76361/en/

⁴⁸ http://www.fao.org/news/story/en/item/54606/icode/

⁴⁹http://www.carfu.org/?p=1280

http://www.fao.org/forestry/silva-mediterranea/90770/en/

⁵¹ http://www.tr.undp.org/content/turkey/en/home/operations/projects/environment_and_energy/integrated-approach-management-forests.html

• The Collaborative Partnership on Mediterranean Forests⁵²

Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

SDG15 is almost entirely about forests and forestry. For this reason, it has been studied in more detail. SDG 15 and its targets and the activities carried out in this framework are shown below.

- By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements
- By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally
- By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world
 - At the 12th Conference of the Parties to Combat Desertification held in Turkey in 2015, the decision of "Land Degradation Neutrality⁵³" was taken. In addition, with the support of the Government of Turkey and the GEF, the "Ankara Initiative⁵⁴" has been launched.
 - During the "Fifth Mediterranean Forest Week" held in Agadir, Morocco, on March 24th, 2017, a Mediterranean Regional Initiative on "Forest and Landscape Restoration" was launched⁵⁵.
 - The Agadir Commitment endorsed by nine countries Algeria, France, Iran, Lebanon, Morocco, Portugal, Spain, Tunisia, and Turkey and strongly supported by several international organizations CBD Secretariat, FAO, IUCN, WRI, GPFLR, World Bank, Global Mechanism, Union for the Mediterranean, Plan Bleu, EFIMED, MMFN, CTFC- to improve Forest and Landscape Restoration (FLR), Land Degradation Neutrality (LDN) and biodiversity conservation efforts in the Mediterranean region. The Commitment proposes to establish a new Regional Mediterranean Initiative on FLR to support the achievement of the Bonn Challenge and Sustainable Development Goal 15 (SDG15). This Regional Mediterranean Initiative also encourages political and administrative authorities at the national level, as well as stakeholders

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⁵² http://www.fao.org/forestry/silva-mediterranea/89593/en/

http://www2.unccd.int/land-degradation-neutrality

http://www2.unccd.int/ankara-initiative

⁵⁵ http://www.fao.org/in-action/forest-landscape-restoration-mechanism/news-and-events/news-detail/en/c/878735/

involved in the management of Mediterranean forest ecosystems and other wooded lands, to strengthen their respective FLR efforts in the context of the United Nations Strategic Plan for Forests 2017-2030 of the United Nations Forum for Forests (UNFF) and in line with the global FLR objectives of the Rio Conventions and the 2030 Agenda for Sustainable Development.

- This Regional Mediterranean Initiative, which aims to restore at least 8 million hectares by 2030, is focused on the four main components:
 - Assess the ongoing national efforts on FLR
 - Reinforce regional cooperation on Forest and Landscape Restoration and Land Degradation Neutrality.
 - Cooperate, among interested partners, to develop a consensual and diversified strategy for the financing of FLR efforts and reinforce national capacities.
 - Assess our respective efforts through the establishment of a voluntary monitoring and notification system for FLR and LDN efforts in the Mediterranean context.
- By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development
- Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species
- Promote fair and equitable sharing of the benefits arising from the utilization of genetic resources and promote appropriate access to such resources, as internationally agreed
- Take urgent action to end poaching and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products
- By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species
- By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts
- Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems
- Mobilize significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation

• Enhance global support for efforts to combat poaching and trafficking of protected species, including by increasing the capacity of local communities to pursue sustainable livelihood opportunities

The experience and knowledge accumulated by the KKL, The Israeli Forest Service, through years of research and day-to-day field management offer a unique set of tools for confronting climate change threats, desertification and land degradation.

KKL Planted over 100,000 hectares and rehabilitated diverse ecosystems over the entire state of Israel. In those forests, KKL is conducting research and long term monitoring programs in order to gain knowledge for improving land management and better understanding of the ecosystem services provided by those forests.

Following applied studies related to Israel's semiarid and arid zones, KKL developed advanced methods to harvest runoff water for the benefit of trees planted in those areas and natural herbaceous vegetation.

Ecological rehabilitation and the cessation of degradation processes both require management intervention based on an understanding of the relations between hydrology, and ecosystem structure and function in water-limited zones. On the frontier of the Mediterranean region (where the rainfall is 200-300mm per year), afforestation methods are based on harvesting runoff water, which ensure the adequate soil moisture that vegetation requires during drought periods.

Advanced studies carried out in the Israeli forests in the semi-arid region demonstrated that the carbon sequestration rate in these forests is similar to that recorded in temperate forests in central Europe. These findings underscore the importance of establishing forests in semi-arid zones to reduce the greenhouse effect.

Israeli forests both planted and natural are multi-functional, provide recreation and tourist services, improved pasture, shade for wild lives and livestock, and enhance economic income to the local communities.

Furthermore, afforested areas are regulating floods and soil erosion processes. Many records show that afforested areas reduce the number of floods events and substantial reduction in floods intensity and the amount of soil erosion.

As part of adaptation of Mediterranean forests to climate change, KKL is taking the following actions:

- 1. Adjusting tree planting densities, as well as thinning activities to ensure forest resilience through droughts (100-400 trees per hectare) according to forest habitat.
- 2. KKL is involved in tree improvement programs that focuses on drought tolerance tree varieties (by vegetative propagation) that had showed high survival during droughts.
- 3. KKL accumulated experience in adapting the right tree species to specific habitats (for example, pinus halepensis shows good survival in shallow soils on lime rocky terrain while broad leaves species are well adapted to deep soils.

Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Goal 16 is aimed at "promoting peaceful and all-embracing societies for sustainable development, ensuring everyone's access to justice, building effective, accountable and embracing institutions at all levels".

Forest-dependent societies, in other words forest villagers in their lives, constitute the lowest income level of societies in general.

On the other hand, they constitute a real treasure for mankind because of their unspoiled, naturalistic cultures that have been going on for many years.

Today, security concerns are the most important concern of mankind. It is generally accepted that people living in forest villages or near forests are the most peaceful people who do not pose any danger or threat to society. For this reason, it is necessary for one side to introduce and integrate these people with city life and city people. On the other hand, people living in cities should be made aware of these treasures.

In any case, however, cultural wealth and accumulation must be preserved.

Undoubtedly, legislation and institutional structures play a vital role for this integration. Also policy frameworks and governance styles play a crucial role⁵⁶.

Goal 17: Strengthen the means of implementation and revitalize the global partnership for sustainable development

SDG17 aims to "bring vitality to global cooperation for sustainable development". There is many collaborative mechanisms on the global scale, even on the Mediterranean scale, related to forestry.

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b) International Conventions Related to Forest and Forestry

The Convention on Biological Diversity

Signed by 150 government leaders at the 1992 Rio Earth Summit, the Convention on Biological Diversity is dedicated to promoting sustainable development. Conceived as a practical tool for translating the principles of Agenda 21 into reality, the Convention recognizes that biological diversity is about more than plants, animals and micro organisms

⁵⁶ İsmail Belen, Züleyha Belen, Policy Frameworks and Governance Styles of Forestry: Turkey Case Study, http://www.carfu.org/?p=1393

and their ecosystems – it is about people and our need for food security, medicines, fresh air and water, shelter, and a clean and healthy environment in which to live⁵⁷.

The United Nations Convention on Biological Diversity is a global commitment to the conservation and sustainable use of natural resources. Biodiversity is lost due to various negative factors in the Mediterranean which is one of the richest regions of the world in terms of biodiversity. It is a fact that the global concerns are also valid for the Mediterranean region, given the negative impacts caused by these losses.⁵⁸.

Forests are home to more than 80% of terrestrial biological diversity. 13% of the world's forests are managed to protect biological diversity ⁵⁹.

Mediterranean Basin covers less than 1.5% of the land surfaces of the whole Earth. However, the area contains more than 10% of the world's vascular plant taxa (Myers et al 2000⁶⁰, Fady 2005). For example, considering only the forest tree species, Mediterranean basin contains more than 100 taxa while the whole Temperate Europe has less than 30 tree taxa. In addition to such a great diversity, the region harbors equally great within species genetic diversity, both on altitudinal and longitudinal dimensions, mainly due to its diverse geology, climate, and long history of migration during- and following ice ages. Parallel to species and within-species diversity, overall genetic diversity is also high in the Mediterranean Basin, making it one of the top 25 genetic diversity hotspots on Earth (Myers et al 2000).

Besides the tree species, Mediterranean forests also harbor wide diversity of other woody and herbaceous plant species. Many of them are useful for producing non-wood forest products such as resin, cork, animal fodder, mushrooms, fruits, pharmaceutical and aromatic plants, all of which contribute considerably to the local or national economies (Palahi et al. 2008⁶¹).

⁵⁷ https://www.cbd.int/convention/

⁵⁸http://www.ncsa-turkey.cevreorman.gov.tr/rio-sozlesmeleri.aspx

⁵⁹http://www.fao.org/forestry/communication-toolkit/76378/en/

⁶⁰ Fady B. 2005. Is there really more biodiversity in Mediterranean forest ecosystems? Taxon 54 (4): 905–910. ⁶¹ Palahi M., R. Mavsar, C. Gracia, Y. Birot. 2008. Mediterranean Forests Under Focus. International Forestry Review, Vol.10 (4): 676-688.

United Nations Convention to Combat Desertification

The United Nations Convention to Combat Desertification, entered into force in 1994, aims to combat desertification and reduce the effects of drought through effective active actions, particularly in Africa, to contribute to sustainable development in countries affected by severe drought and / or desertification.

Unlike other UN Conventions, the Convention on Combating Desertification has given particular importance to regional and joint actions. This includes five regions: Africa, Asia, Latin America and Caribbean, Northern Mediterranean and Central and Eastern Europe⁶².

While the MENA countries surrounding the Mediterranean are predominantly within the African Region, other countries are located in the North Mediterranean Region.

Desertification, land degradation and drought are among the most serious threats to the Mediterranean region. When political instability is added to these, migration movements are taking place. One of the regions where immigration movements are seen most in recent years has been the Mediterranean Region.

In 2016, while the number of people migrating using the Mediterranean reached 400, about 5 thousand of them lost their lives in the Mediterranean. ⁶³.

Migration movements increase the pressure on natural resources. In addition, the land and the local culture / experiences in places where they are abandoned due to migration are out of use. ⁶⁴.

In addition to other actors, non-governmental organizations function as an important 'education' and 'awareness building' in fighting desertification. To give an example to this, the Trade Union of Forestry & Agriculture Industry (Öz Orman İş) organized in the agricultural forestry sector in Turkey initiated a global work towards Sustainable Development goals.

At the UNCCD 12th Conference of the Parties held in Ankara in 2015, a meeting called "The Role of Unions in Combating Desertification".

More than 30 representatives from different countries and from different unions attended to this meeting. The role of trade unions in fighting against desertification, erosion, land degradation and the destruction of natural resources has been negotiated.

ÖZ ORMAN-İŞ, which the only one Union accredited to UNCCD, has organized an international meeting in Ankara on 2 March 2017. 150 foreign trade unionists from 45 different countries and UNCCD Secretariat attended to this meeting.

Mediterranean ecosystems can serve as a model for multipurpose landscape planning

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⁶²http://www2.unccd.int/convention/regions

⁶³ https://www.iom.int/news/mediterranean-migrant-arrivals-top-363348-2016-deaths-sea-5079

⁶⁴ http://www2.unccd.int/news-events/2017-world-day-combat-desertification-2017wdcd

Mediterranean terrestrial ecosystems can serve as a model, both within time and space, for various scientific and operational activities on terrestrial ecosystems on Earth. This potential arises from the facts that the region contains various landscape configurations and climatic conditions, exhibits rich species diversity (both native as well as introduced), has a long history of land use patterns, and harbors diversity of cultural heritage. Forestry activities are no exception within this scenario. Therefore, it appears necessary to rapidly shift from a wood-based forest planning to a multi-objective landscape planning. In this context, three types of forest management practices, all imitating certain aspect of Mediterranean type landscape mosaic, appear to be the best approach for sustainability, both in biodiversity conservation and in meeting the different demands of people in the region: (1) Agro-forestry ecosystems integrating variety of cultivated and wild species in harmony, (2) Plantation ecosystems of various scales mainly for wood and oxygen production and carbon fixation, particularly by using genetically improved stock associated with intensive silvicultural practices; (3) Protected natural forest ecosystems containing biological diversity at all levels, mainly to provide ecological services as well as meeting scientific and recreational needs, both for the present and the future generations.

Rich genetic diversity hidden in nature has been the best tool to adapt plants to both neverending changes in human needs and environmental factors affecting plant growth. International cooperation, especially in legislation, research, development and funding to cope with the common problems facing people in the region appears to be necessary, ever more than before.

United Nations Framework Convention on Climate Change

The United Nations Framework Convention on Climate Change was adopted in 1992 to form the basis of the global response to climate change.

The ultimate goal of the contract is to stop the accumulation of greenhouse gases in the atmosphere at a level that prevents dangerous human-induced effects on the climate system.

Under the Convention, the Kyoto Protocol was adopted in 1997 and the Protocol entered into force in 2005. The Protocol aims to reduce greenhouse gases and support developing countries in line with the quantified emission reduction targets of developed countries.

After many years of negotiations, the Paris Treaty was adopted in December 2015. The Paris Treaty, which is accepted with the participation of almost all countries, aims to keep the temperature increase at 1.5-2.0 °C.

However, the withdrawal of the United States from the Paris Treaty in June 2017 is considered a serious threat.

c) Other International Initiatives on Forestry

1. United Nations Forum on Forests⁶⁵

It was established in October 2000 under the United Nations Economic and Social Council. Membership in this Forum is open to all Members of the United Nations and to UN Specialized Institutions. It follows political commitments related to forestry, especially Rio conventions. The UNFF Secretariat serves at the UN Headquarters in New York.

The studies carried out following the establishment of UNFF can be listed as follows

- 2000-Establishment of the UNFF. http://www.un.org/esa/forests/forum/index.html
- 2006- UNFF 6th Session adopted 4 Global Objectives on Forests http://www.un.org/esa/forests/documents/global-objectives/index.html. The year 2011 was declared "International Year of Forest".
- 2008- "Non-Legally Binding Instrument on All Types of Forests http://www.un.org/esa/forests/documents/un-forest-instrument/index.html
- 2013 UNFF Session 10 was held in Istanbul, Turkey, for the first time in its history, outside of New York, in a Mediterranean country.
- 2015- "International Arrangement on Forests" http://www.un.org/esa/forests/documents/international-arrangement-on-forests/index.html
- 2015- Sustainable Development Goals were accepted by the UN General Assembly.

As a continuation of these, in 2017:

- United Nations Strategic Plan For Forests, 2017-2030 http://www.un.org/esa/forests/wp-content/uploads/2016/12/UNSPF AdvUnedited.pdf
- Six Global Forest Goals-. http://www.un.org/esa/forests/news/2017/01/six-global-forest-goals/index.html

This Strategy Document and the Global Forest Goals, adopted by January 2017, include all the international processes and agreements listed above.

2. The first UN Strategic Plan (2017-2030) for Forests⁶⁶

On 20 January, 2017, during the UN Forum on Forests, 197 Member States reached agreement on the first UN Strategic Plan for Forests that provides an ambitious vision for global forests in 2030. This plan will significantly improve the outlook for the world's forests, including a target that would expand the world's forests by 120 million hectares - an area about the size of South Africa - by 2030.

This Strategic Plans sets the general principles for the following issues related to forestry.

⁶⁵http://www.gonder.org.tr/?p=5621

⁶⁶ http://aims.fao.org/activity/blog/first-un-strategic-plan-2017-2030-forests

- 2030 Sustainable Development Goals,
- Paris Agreement on Climate Change,
- The Convention on Biological Diversity,
- Convention on Combating Desertification
- United Nations Forests Instrument ⁶⁷,

This Strategy Paper also carries a reference document for all forestry-related work carried out by the United Nations. ⁶⁸.

It consists of 5 sections in general as shown at the following box:

I. Introduction

- A. Vision and Mission
- B. Importance of forests to people and the 2030 Agenda for Sustainable Development
- C. Trends and challenges
- D. Opportunities for enhanced and value-added action on SFM
- E. International Arrangement on Forests (IAF)

II. Global forest goals and targets

III. Implementation framework

- A. Roles and responsibilities
- B. Means of implementation

IV. Review framework

- A. Review of the international arrangement on forests
- B. Progress in implementing the United Nations strategic plan for forests
- C. Contributing to the follow-up and review of the 2030 Agenda for Sustainable Development

V. Communication and outreach strategy

ANNEX Indicative Thematic Areas for Action Associated with the Global Forest Goals and Targets of the United Nations strategic plan for forests, 2017-2030

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⁶⁷http://www.un.org/esa/forests/documents/un-forest-instrument/

⁶⁸http://www.un.org/esa/forests/wp-content/uploads/2016/12/UNSPF AdvUnedited.pdf

In this context, it is expected that the Mediterranean Region countries will report on the Global Forest Goals combined with the Sustainable Development Goals and Targets. However, since the system is newly developed, an application can not be mentioned yet.

3. Six Global Forest Goals⁶⁹

These targets, which were adopted in January 2017, are set out in line with the 2030 Sustainable Development Goals set by the UN General Assembly in 2015, the 14th World Forestry Congress outputs, the "Committee on Forestry-COFO" outputs of FAO in 2016, and all other regulations.

Global Forest Goal 1

Reverse the loss of forest cover worldwide through SFM, including protection, restoration, afforestation and reforestation, and increase efforts to prevent forest degradation and contribute to the global effort of addressing climate change⁷⁰.

- 1.1. Forest area is increased by 3% worldwide based on FRA 2015
- 1.2. The world's forest carbon stocks are maintained or enhanced.
- 1.3. By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally
- 1.4. The resilience and adaptive capacity of all types of forests to natural disasters and the impacts of climate change is significantly strengthened worldwide.

Goal 1 and its targets support and contribute to the achievement of, among others, Sustainable Development Goal targets 6.6, 12.2, 13.1, 13.3, 14.2, 15.1, 15.2, 15.3, 15.4 and 15.8, as well as Aichi Biodiversity Targets 5, 7, 9, 11, 14 and 15.

Global Forest Goal 2

Enhance forest-based economic, social and environmental benefits, including by improving the livelihoods of forest dependent people.

- 2.1 Extreme poverty for all forest dependent people is eradicated.
- 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.
- 2.3 The contribution of forests and trees to food security is significantly increased.
- 2.4 The contribution of forest industry, other forest-based enterprises and forest ecosystem services to social, economic and environmental development, among others, is significantly increased.
- 2.5 The contribution of all types of forests to biodiversity conservation and climate change mitigation and adaptation is enhanced, taking into account the mandates and ongoing work of relevant conventions and instruments.

⁷⁰ http://www.un.org/esa/forests/wp-content/uploads/2016/12/UNSPF AdvUnedited.pdf

⁶⁹ http://www.un.org/esa/forests/news/2017/01/six-global-forest-goals/index.html

Goal 2 and its targets support and contribute to the achievement of, among others, Sustainable Development Goal targets 1.1, 1.4, 2.4, 4.4, 5.a, 6.6, 8.3, 9.3, 12.2, 12.5, 15.6 and 15.c, as well as Aichi Biodiversity Targets 4, 14 and 18.

Global Forest Goal 3

Increase significantly the area of protected forests worldwide and other areas of sustainably managed forests, as well as the proportion of forest products from sustainably managed forests.

- 3.1 The area of forests worldwide designated as protected areas or conserved through other effective areabased conservation measures is significantly increased.
- 3.2 The area of forests under long-term forest management plans is significantly increased.
- 3.3 The proportion of forest products from sustainably managed forests is significantly increased.

Goal 3 and its targets support and contribute to the achievement of, among others, Sustainable Development Goal targets 7.2, 12.2, 12.6, 12.7, 14.2, 14.5, 15.2 and 15.4, as well as Aichi Biodiversity Targets 7, 11, 12 and 16.

Global Forest Goal 4

Mobilize significantly increased, new and additional financial resources from all sources for the implementation of SFM and strengthen scientific and technical cooperation and partnerships.

- 4.1 Mobilize significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation.
- 4.2 Forest-related financing from all sources at all levels, including public (national, bilateral, multilateral and triangular), private and philanthropic financing is significantly increased.
- 4.3 North-South, South-South, North-North and triangular cooperation and publicprivate partnerships on science, technology and innovation in the forest sector are significantly enhanced and increased.
- 4.4 The number of countries which have developed and implemented forest financing strategies and have access to financing from all sources is significantly increased.
- 4.5 The collection, availability and accessibility of forest-related information is improved through, for example, multi-disciplinary scientific assessments.

Goal 4 and its targets support and contribute to the achievement of, among others, Sustainable Development Goal targets 12.a, 15.7, 15.a, 15.b, 17.1, 17.2, 17.3, 17.6, 17.7, 17.16, 17.17, 17.18 and 17.19, as well Aichi Biodiversity Target 19.

Global Forest Goal 5

Promote governance frameworks to implement SFM, including through the UN Forest Instrument, and enhance the contribution of forests to the 2030 Agenda.

- 5.1 Number of countries which have integrated forests into their national sustainable development plans and/or poverty reduction strategies is significantly increased.
- 5.2 Forest law enforcement and governance are enhanced, including through significantly strengthening national and subnational forest authorities, and illegal logging and associated trade is significantly reduced worldwide.
- 5.3 National and subnational forest-related policies and programs are coherent, coordinated and complementary across ministries, departments and authorities, consistent with national laws, and engage relevant stakeholders, local communities and indigenous peoples, fully recognizing the UN Declaration on the Rights of Indigenous Peoples.
- 5.4 Forest-related issues and the forest sector are fully integrated into decision-making processes of land use planning and development.

Goal 5 and its targets support and contribute to the achievement, among others, of Sustainable Development Goal targets 1.4, 2.4, 5.a, 15.c, 15.9, 16.3, 16.5, 16.6, 16.7, 16.10 and 17.14, as well as Aichi Biodiversity Targets 2 and 3.

Global Forest Goal 6

Enhance cooperation, coordination, coherence and synergies on forest-related issues at all levels, including within the UN System and across CPF member organizations, as well as across sectors and relevant stakeholders.

- 6.1 Forest-related programmes within the UN system are coherent and complementary and integrate the Global Forest Goals and targets where appropriate.
- 6.2 Forest-related programmes across CPF member organizations are coherent and complementary and United Nations strategic plan for forests, together encompass the multiple contributions of forests and the forest sector to the 2030 Agenda for Sustainable Development.
- 6.3 Cross-sectoral coordination and cooperation to promote SFM and halt deforestation and forest degradation is significantly enhanced at all levels.
- 6.4 A greater common understanding of the concept of SFM is achieved and an associated set of indicators is identified.
- 6.5 The input and involvement of major groups and other relevant stakeholders in the implementation of the UNSPF and in the work of work of the Forum, including intersessional work, is strengthened.

Goal 6 and its targets support and contribute to the achievement of, among others, Sustainable Development Goal target 17.14.

4. World Forestry Congress⁷¹

The first World Forestry Congress was held in Rome in 1926 and has generally taken place every six years since then. Gatherings serve as a forum for governments, universities, civil society and the private sector to exchange views and experiences and to formulate recommendations for implementation at national, regional and global levels. The Congress also provides an opportunity for the sector to produce an overview of the state of forests and forestry in order to discern trends, adapt policies and raise awareness of issues among decision-makers, the public and other parties concerned.

Its functions are advisory, not executive, and participants attend the Congress in their personal capacity. The implementation of recommendations is a matter solely for those to whom they are addressed in light of their own particular circumstances - governments, international organizations, scientific bodies and forest owners, among others. The outcomes are brought to the attention of the FAO Conference which may consider endorsing, through a resolution, any declaration emanating from the Congress.

The Mediterranean Countries have been very active at the "World Forestry Congresses.

As of 2017, a total of 14 congresses have been organized to date. Four of them were organized in the Mediterranean Region, in other words in Silva Mediterranea. These; 1997 Turkey, 1991 France, 1966 Spain and 1926 Italy.

The last World Forestry Congress (14th) was held in Durban, South Africa, on September 7-11, 2015. The 15th World Forestry Congress will be held in Seoul in 2021, the capital of South Korea.

Three documents from Congress have been issued in Durban. These are the following⁷².

- The Durban Declaration
- Message on Climate Change from the XIV World Forestry Congress
- Message from XIV World Forestry Congress to the United Nations General Assembly Summit for the adoption of the 2030 Agenda for Sustainable Development

With the Durban Declaration⁷³, 2050 vision for forestry has been identified. With this vision The Congress offers the following vision for forests and forestry as a contribution to achieving the **2030 Agenda for Sustainable Development, and a sustainable future to 2050 and beyond**:

Forests are more than trees and are fundamental for food security and improved livelihoods. The forests of the future will increase the resilience of communities by: providing food, wood energy, shelter, fodder and fibre; generating income and employment to allow communities and societies to prosper; and harbouring biodiversity. They will support sustainable agriculture and human wellbeing by stabilizing soils and climate and regulating water flows.

⁷¹ http://www.fao.org/about/meetings/world-forestry-congress/background/past-congresses/en/

⁷² http://www.fao.org/about/meetings/world-forestry-congress/outcome/en/

⁷³ http://www.fao.org/fileadmin/user_upload/wfc2015/Documents/Durban_Declaration_FINAL.pdf

- Integrated approaches to land use provide a way forward for improving policies and practices to: address the drivers of deforestation; address conflicts over land use; capitalize on the full range of economic, social and environmental benefits of integrating forests with agriculture; and maintain multiple forest services in the landscape context.
- Forests are an essential solution to climate change adaptation and mitigation.
 Sustainably managed forests will increase the resilience of ecosystems and societies and optimize the role of forests and trees in absorbing and storing carbon while also providing other environmental services.

Realizing this vision will require new partnerships among the forest, agriculture, finance, energy, water and other sectors, and engagement with indigenous peoples and local communities. Success will require further investment in forest education; communication; capacity building; research, including climate change's impact on forest health and diseases; and the creation of jobs, especially for young people. Gender equality is fundamental, with women participating fully.

Subsequently, on 25 September 2015, the UN General Assembly adopted the Sustainable Development Goals.

In addition, the World Forestry Congress output was presented to FAO at the Forestry Committee meeting held on 18-22 July 2016⁷⁴.

5. United Nations Food and Agriculture Organization

Founded at 1945, FAO is the specialized agency of the UN on forestry.

One of the 7 Depertments of the FAO is concerned with forestry. This department coordinates all forestry-related work within FAO and contacts member states with FAO's regional organizations and forestry officers in the countries. In addition, the "Committee on Forestry "meets every two years. There are also technical advisory committees on forestry at the Headquarter. Technical statutory bodies of FAO as shown below ⁷⁵;

- o Committee on Mediterranean Forestry Questions Silva Mediterranea
- International Poplar Commission
- Panel of Experts on Forest Gene Resources
- Advisory Committee on Sustainable Forest-based Industries
- o Intergovernmental Technical Working Group on Forest Genetic Resources

It also has Regional Forestry Commissions⁷⁶

- o African Forestry and Wildlife Commission
- Asia-Pacific Forestry Commission
- European Forestry Commission
- Latin American and Caribbean Forestry Commission

75http://www.fao.org/forestry/49275/en/

⁷⁴http://www.fao.org/3/a-mq571e.pdf

⁷⁶ http://www.fao.org/forestry/46199/en/

- Near East Forestry and Range Commission
- North American Forest Commission

The regional committees, together with the European, African and Near East Committees, formed the "Committee on Mediterranean Forestry Questions".

The European Forestry Committee is in cooperation with the Department for Forestry and Timber of the UNECE.

Almost all of the Mediterranean countries are members of the "Committee on Mediterranean Forestry Questions-Silva Mediterranea" ⁷⁷. Since its foundation in 1911, Silva Mediterranea is one of the most active committees in the regional and global level.

In the Mediterranean Region, which has been predominantly led by Silva Mediterranea, important works have been done on the integration of Mediterranean forests and forestry into the global system. Some of them are listed below.

- The Strategic Framework on Mediterranean Forests-2013
- The State of Mediterranean Forests 2013
- The opinion paper "Mitigation and adaptation potential of Mediterranean forests to climate change"-2015
- Tlemcen Declaration-2013
- Agadir Commitment-2017
- Mediterranean Forest Weeks (2010, 2011, 2013, 2015, 2017)⁷⁸
- The Collaborative Partnership on Mediterranean Forests⁷⁹
- AFMS Initiative-Strengthened action in favor of Forests in the Med-Sahel region in the context of Climate Change⁸⁰

6. The United Nations Economic Commission for Europe (UNECE)

The United Nations Economic Commission for Europe (UNECE) was set up in 1947 by ECOSOC. It is one of five regional commissions of the United Nations. The others are the:

- Economic Commission for Africa (ECA),
- Economic and Social Commission for Asia and the Pacific (ESCAP),
- Economic Commission for Latin America and the Caribbean (ECLAC),
- Economic and Social Commission for Western Asia (ESCWA).

UNECE's major aim is to promote pan-European economic integration. UNECE includes 56 member States in Europe, North America and Asia. Many Silva Mediterranea members are

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⁷⁷http://www.fao.org/forestry/silva-mediterranea/89589/en/

⁷⁸ http://www.fao.org/forestry/silva-mediterranea/89594/en/

⁷⁹ http://www.fao.org/forestry/silva-mediterranea/89593/en/

⁸⁰ http://www.carfu.org/?p=1280

also members of UNECE. Some of these countries are: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, France, Greece, Israel, Italy, Malta, Spain, and Turkey.

The UNECE Committee on Forests and the Forest Industry (COFFI) and the FAO European Forestry Commission (EFC) work together to strengthen the forest sector and its contribution to sustainable development in Europe, Central Asia and the Caucasus and North America through their integrated programme of work. UNECE and FAO jointly provide the secretariat team to support the implementation of the programme, through the UNECE/FAO Forestry and Timber Section, located in Geneva⁸¹.

7. Forest Europe

FOREST EUROPE (The brand name of the Ministerial Conference on the Protection of Forests in Europe) is the pan-European voluntary high-level political process for dialogue and cooperation on forest policies in Europe. FOREST EUROPE develops common strategies for its 47 signatories (46 European countries and the European Union) on how to protect and sustainably manage their forests. Since 1990, the collaboration of the ministers responsible for forests in Europe has had a great economic, environmental and social impact on the national and international level. FOREST EUROPE has led to achievements such as the guidelines, criteria and indicators for sustainable forest management.

With the aim of agreeing on how to manage forests in Europe, FOREST EUROPE process periodically hosts ministerial level conferences where ministerial commitments and resolutions are adopted.

Forest Europe has actively participated in other relevant international processes. As of 2017, Forest Europe is co-chaired by Spain and Slovakia. The last Conference (Seventh) was held in Spain. The next one will be held in Slovakia, then in Germany, then in Turkey.

An important part of the Mediterranean countries is also a member of Forest Europe. ⁸². Some of these can be listed as follows: Albania, Bosnia and Herzegovina, Croatia, Bulgaria, Cyprus, France, Greece, Italy, Malta, Spain, and Turkey. In addition, Morocco is here with observer status.

Some of the decisions taken at the Forest Europe Conferences held to date are as follows⁸³.

- 1990-Strasburg- RESOLUTION S4-Adapting the Management of Mountain Forests to New Environmental Conditions
- 1993- Helsinki-RESOLUTION H4- Strategies for a Process of Long-term Adaptation of Forests in Europe to Climate Change
- 1993-Helsinki- RESOLUTION H2-General Guidelines for the Conservation of the Biodiversity of European Forests
- 2007- Warsaw- WARSAW RESOLUTION 1-Forests, Wood and Energy
- 2007- Warsaw-WARSAW RESOLUTION 2-Forests and Water

http://foresteurope.org/list-signatory-countries/
83 http://foresteurope.org/ministerial-commitments/

⁸¹ http://www.unece.org/forests/governance.html

- 2011-Oslo- Oslo Ministerial Decision: European Forests 2020
- 2011-Oslo-Oslo Ministerial Mandate for Negotiating a Legally Binding Agreement on Forests in Europe
- 2015- Madrid-Madrid Ministerial Resolution 1 Forest sector in the center of Green Economy

In addition to these decisions, preparations for the "a Legally Binding Agreement on Forests in Europeare" ongoing. A decision was made to initiate negotiations on the conference in Oslo in 2011 (Oslo Ministerial Mandate for Negotiating a Legally Binding Agreement on Forests in Europe), and an office and a committee were set up. ⁸⁴.

8. Eurepean Commission

The EU has close to 182 million hectares (ha) of forests and other wooded land, corresponding to 43% of EU land area. (Source: Eurostat 2016) As a result of afforestation programmes and due to natural regeneration on marginal lands, forest cover in the EU has increased over the past few decades⁸⁵.

The **Standing Forestry Committee**⁸⁶ (SFC), set up in 1989, represents forestry administrations of the EU Member States. The Standing Forestry Committee has 28 members representing the Member States. The European Commission chairs the Committee. Members of the Committee are nominated by the governments of the EU Member States.

The SFC has a three-fold role:

- it acts as an advisory and management Committee for specific forestry measures;
- it is also an ad-hoc consultation forum that provides expertise in connection with the development of forest-related measures in the framework of various Community policies, such as those on rural development and the environment;
- It provides a venue for exchange of information among Member States, and between Member States and the Commission.

On 20 September 2013 the Commission adopted a **new EU Forest Strategy** ⁸⁷which responds to the new challenges facing forests and the forest sector.

The new Strategy gives a new framework in response to the increasing demands put on forests and to significant societal and political changes that have affected forests over the last 15 years. It was developed by the Commission in close cooperation with Member States and stakeholders over the past two years and has been submitted to the European Parliament and the Council.

From the administrative point of view forestry issues of European Commission is under the DIRECTORATE-GENERAL of Agriculture and Rural Development⁸⁸. The organizational chart

86 https://ec.europa.eu/agriculture/forest/standing-committee_en

⁸⁴http://foresteurope.org/wp-content/uploads/2016/11/V.-EMC MadridMinisterialDecision.pdf

⁸⁵ https://ec.europa.eu/agriculture/forest_en

https://ec.europa.eu/agriculture/forest/strategy_en

could be seen here at this following link: https://ec.europa.eu/info/sites/info/files/agriculture-and-rural-development-organisationchart.pdf

Many members of the European Union are also the country of "Silva Mediterranea". Countries like Italy, Spain, France, Portugal, Greece, and Bulgaria are very active in Mediterranean forestry.

Euro-Mediterranean partnership Programe of European Commission is also very active on Mediterranean issues⁸⁹. Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Palestine, Syria, Tunisia, Turkey are the partners of Euro-Mediterranean partnership Programe. These countries are also the members of Silva Mediterranea.

^{88 &}lt;a href="https://ec.europa.eu/info/departments/agriculture-and-rural-development_en">https://ec.europa.eu/info/departments/agriculture-and-rural-development_en
http://ec.europa.eu/trade/policy/countries-and-regions/regions/euro-mediterranean-partnership/