SDG-NDC Synchronization:
Assessment and Recommendations

How can the Climate Change Nationally Determined Contributions and the 2030 Agenda for Sustainable Development complement and support each other towards a sustainable future?

Ministry of Environment
United Nations Development Programme
Nationally Determined Contribution Support Programme

Assessment and Recommendations for Integration of Sustainable Development Goals within Lebanon's Climate Related Plans

Description and Objectives

The Paris Climate Agreement's Nationally Determined Contribution (NDC) and the Sustainable Development Goals (SDGs) share some mutual goals and a common target year (2030). Many synergies exist between the two agendas, and addressing those linkages from an integrated institutional viewpoint will enhance the implementation, coordination and tracking of the different actions. The aim of this analysis is to assist policymakers in:

- Assessing the sectoral policies that make up the NDC in terms of SDG linkages using the SDG Climate Action Nexus tool (SCAN tool) in order to establish and clarify the linkages;

- Identifying progress indicators of NDC policies to inform SDG progress and vice versa, in order to synchronize reporting;

- Operationalizing the coordination between institutions responsible for the implementation and reporting of both the NDC and SDGs.

Methodology

- The SCAN-tool provides high-level guidance on how climate actions can impact the achievement of the SDGs (http://ambitiontoaction.net/scan_tool/);

- Coupled with local expertise, this analysis:
  - Identifies potential linkages between specific recommendations included in each of Lebanon's climate related plans and policies and the SDGs;
  - Includes the identification of a primary SDG linkage along with other relevant SDG linkages;
  - Identifies potential linkages to all of the SDG targets, and provides further recommendations.

- All climate-relevant and sustainable development plans inherently contribute to SDG 13 (climate action);

- SDG 17 addresses global partnerships and means of implementation, relevant SDG 17 linkages to local plans are also identified in this assessment.

This is not an exhaustive analysis but it provides a sound basis to better understand where and how Lebanon's climate actions impact SDG achievement.

How to use this guide?

Step 1: Review

This guidance recommends certain linkages per SDG which should be reviewed in the context of policy-making.

Step 2: Prioritize

Not all the linkages made have the same relevance to the policy or activity, therefore, the linkages should be prioritized considering magnitude of impact, co-benefits and other criteria depending on the institution and its priorities.

Step 3: Consult

Depending on the prioritized SDGs, stakeholder consultations for policy-drafting should include the lead institutions responsible for implementing the selected SDGs.

Step 4: Synchronize

When implementing the policy, synchronization at the level of tracking between the different institutions, the NDC committee and the SDG committee should be considered.

Sector:	Forestry
Source documents:	National Forest Program 2015-2025 National Afforestation a Reforestation Plan Lebanon's National Strategy for Forest Fire Management
Ministry:	Ministry of Agriculture, Ministry of Environment
URL:	http://extwprlegs1.fao.org/docs/pdf/leb163865.pdf http://climatechange.moe.gov.lb/viewfile.aspx?id=172

Plan/ Policy Overview

Forests in Lebanon suffer from fragmentation, pest outbreaks, forest fires and unsustainable practices which are challenging it's capacity to survive and develop (MoE, 2019). Climate change mitigation and adaptation actions in Lebanon include strategies for conserving and protecting Lebanon's forests and biodiversity. Three plans comprise Lebanon's forestry outlook: The National Forest Program (NFP), the Lebanon's National Strategy for Forest Fire Management (NSFFM), and the National Afforestation and Reforestation Plan (NARP). Together, these plans represent a comprehensive approach to halt deforestation, protect important ecosystems, build resilience against disaster, and reforest/afforest, wherever possible. The plans link to many of the Sustainable Development Goals, primarily connecting to SDG 15: life on land. The plans also place a strong emphasis on building resilience, poverty alleviation, sustainable management, capacity building and awareness raising, and strong public-private partnerships where linkages can be found to targets in SDG 1 (poverty), SDG 12 (sustainable consumption and production), and SDG 17 (partnerships for the goals). Further, climate change has been mainstreamed and articulated in all three forestry plans.

Links to Climate Change and Sustainable Development

Protecting and rebuilding forests in light of climate change impacts are important for both adaptation and mitigation measures. Lebanon's Nationally Determined Contribution (NDC) to the United Nations Framework Convention on Climate Change (UNFCCC) recognizes forests as a priority adaptation action area with the following target for 2030:

> Overarching objective: Towards sustainably managed forest resources, safeguarded ecological integrity, and economic and social development for the benefit of present and future generations. This will be achieved through the implementation of the National Forest Programme including, among others:
> - Raising tree nurseries' productivity;
> - Planting of trees;
> - Implementing the forest fire fighting strategy;
> - Applying forest integrated pest management.

The overall mitigation targets do not include specific forestry targets. However, where the NDC's general GHG targets aim to be achieved by mitigation actions in several sectors, including forestry.
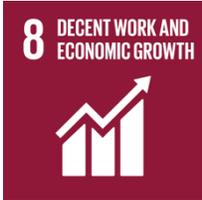
Unconditional Target	A GHG emission reduction of 15% compared to the Business-As-Usual (BAU) scenario in 2030
Conditional Target	A GHG emission reduction of 30% compared to the Business-As-Usual (BAU) scenario in 2030

The following assessment identifies how the specific actions within the three Forest plans relate to the SDG targets (Tables 1 and 2). It identifies how planting trees, for example, can positively impact SDG target.

Table 1: Primary SDG Target

Primary SDG	How do the Forestry Plans contribute to this SDG? (examples)
15 LIFE ON LAND	- Implementation of sustainable management of forest management to prevent fires and subsequent deforestation - Fire prevention reduces chances of degradation of natural habitats and helps to protect threatened species - Restoration of forests starting with seed selection, establishment of nurseries, and seedling production - Combat desertification through afforestation initiatives that utilize the best available genetic material - Maintain biodiversity through the establishment of seed banks - Enhance capacity for natural adaptation and migration - Increasing awareness on environmental protection can change behavior towards resource conservation, demand for products that cause deforestation, and unsustainable practices such as slash and burn - Use of natural means (afforestation) to protect against flooding, storms, and erosion that also supports biodiversity - Increase conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services through forest management - Sustainable management of all types of forests, halt deforestation, restore degraded forests - Develop and implement an action plan to strengthen institutional, technical and administrative public capacities in the forest sector - An independent dedicated funding mechanism can support the conservation and restoration of forested land

Table 2: Highly Relevant SDG Targets

Relevant SDG	How do the Forestry Plans contribute to this SDG? (examples)
1 NO POVERTY	- Build the resilience of the poor through risk modification, including fire vulnerability reduction and prevention of harmful fires - Provision of emergency response and disaster relief goods and services help poor households to cope with and prevent further economic losses from extreme events; therefore, lowering the likelihood of falling into the poverty trap - Protecting income and assets of poor households from extreme events such as forest fires, erosion, flooding through climate-resilient trees and fire corridors - Supporting small enterprises through the development of value chains standards, for sustainable production of forests and rangelands value added goods - Protecting income of poor households through shifting of products to higher value added, while protecting the natural landscapes and ecosystems
8 DECENT WORK AND ECONOMIC GROWTH	- Promotion of nature based and sustainable tourism - Decoupling growth from environmental degradation - Conducting risk assessments, vulnerability mapping, and strengthening early warning systems reduce possible economic losses from extreme events (forest fires) - Job creation in conservation of natural areas - Income diversification from forestry programs - Sustainable management planning for the development of the socio-economic values of wood and non-wood forest products - Promotion and marketing strategies to support local communities in promoting forest products and services

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

- Sustainable management of natural resources through proper seed selection and reforestation efforts
- The tourism industry benefits from the greening of the country
- Increasing awareness on environmental protection can change behavior towards resource conservation, demand for products that cause deforestation; promotion of nature based and sustainable tourism
- Successful reforestation/ afforestation programs entail awareness raising campaigns with many stakeholder groups
- Sustainable management of natural resources through forest management

17 PARTNERSHIPS FOR THE GOALS

- Engage private sector in nursery management and afforestation efforts
- Plans for restoration and rehabilitation in degraded lands provides policy coherence
- Mobilize resources from national and international sources
- A successful afforestation/reforestation will require the involvement of many stakeholder groups including the private sector

Summary of Recommendations

For forestry activities to be comprehensive, to have clear co-benefits and to be efficiently implemented, strategies, including in the three forestry plans, should explicitly address linkages to specific SDG targets and the NDC goals. In doing so, there should be a narrative that focuses on the plan's broader societal goals and impact on addressing climate change. Recommendations put forth in the three forest plans co-benefit at least thirty highly relevant SDG targets, and advances the NDC goals in increasing resilience, and it should therefore be explicitly demonstrated within the plans so that common entry points can be better understood within and among Lebanon's sustainable development related plans and policies.

→ For example, in Lebanon, non-wood forest products (NWFPs) (pine nuts, honey, oregano, etc.) generates between US$ 80 to 97 million in sales per year, creating income for between 10-15 thousand rural households (FAO, 2016). Afforestation and reforestation projects can bolster this economy co-benefit SDG 1 (poverty) and SDG 8 (decent work and economic growth) when sustainable management practices are put in place.

Future iterations of forestry plans, could continue to consider the potential impact on sustainable development and in addressing climate change when developing and prioritizing specific implementation strategies. For example, the plan should prioritize measures that are most economically feasible and have largest impact on both the NDC and SDGs. In other words, there are many opportunities in portraying forestry through a holistic approach: looking through the lens of the SDGs and NDC might result in a different prioritization of plan strategies.

→ For example, in the National Forest Program, looking at forestry initiatives from a gender perspective resulted in strategies to include women in income generating activities. Other forestry reports could follow suit by strengthening the emphasis on additional sustainable development parameters such as gender, inequality, and hunger.

→ Further, forestry indicators should be narrowed down and synthesized with other plans and policies including but not limited to biodiversity and agriculture, to include a broader

assessment of meeting SDG targets and NDC goals. Indicators selection should fully consider data availability, periodicity, reliability, etc.

→ The SDG and NDC committees should work collaboratively, alongside the responsible ministries, in the development of joint indicators that can be utilized among all sustainable development related plans and policies to jointly assess both NDC and SDG progress.

Finally, while developing forestry strategies, and considering the linkages with non-environment SDGs, stakeholders from other ministries and institutions should be consulted for more comprehensive decision-making (Annex I).

Potential Negative Linkages

The majority of forestry measures result in largely positive benefits to the environment however, a few measures can have negative or unintended consequences. The overall impact and potential trade-offs need to be weighed to determine if projects have a net positive impact and/or if potential negative impacts can be avoided. Moreover, some negative linkages may not be detrimental specifically to the environment, but they can have negative consequences on other SDGs such as hunger, poverty, health or jobs. Therefore, it is imperative to understand how certain plan recommendations may negatively impact some SDGs. Table 3, illustrates some examples of the potential negative linkages that the deployment of forest measures could have on the SDGs that may want to be considered during decision-making processes and policy drafting.

Table 3: Potential Negative Linkages to SDGs

1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than $1.25 a day	Protection of species through conservation can impact population when forest wood or charcoal is used for fuel
2.2 By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons	Expanding protected areas may have trade-offs on agricultural land use, which make affordable food prices harder to achieve
16.3 Promote the rule of law at the national and international levels and ensure equal access to justice for all	If adaptation action is the protection of critical habitat for vulnerable species through regulatory protection, this creates concerns over property rights and regulatory barriers to regional economic development

Sustainable Development Anchors: what is there and what is missing?

A key word search and review of the three forest plans identify where they explicitly address components of sustainable development and climate change. As previously stated, all three plans address climate change, but because they predate the SDGs and NDC, they are not included in the narrative. While the SCAN tool identified where linkages exist between plans and the SDG targets, further examination of each plan reveals where these linkages are explicitly stated in each plan. While the forest plans touch on many dimensions of sustainable development including poverty, equity and gender, future iterations should explicitly state the SDG and NDC co-benefits with each plan.

The following is an assessment of sustainable development and climate change language included the forest plans and recommendations for creating linkages and estimations of impacts in future iterations of the plans (Table 4). The below recommendations tackle the primary SDG, the other highly relevant SDG linkages, as well as the rest.

Table 4: Recommendation for Estimation of Impact of SDGs

Key Words	Description in the Policy/Strategy/Action Plan	Recommendation for Estimation of Impact/Integration of Impact
Highly Relevant SDG **SDG One: No Poverty** · Low-income · Poor · Poverty · Disadvantaged · Underprivileged · Vulnerable groups · Rural communities	**NFP** - Mission: To ensure and uphold the restoration, development and resiliency of forest ecosystems, aiming at enhanced economic growth, poverty alleviation, and biodiversity conservation, while supporting innovative participatory approach to heighten the well-being of Lebanese citizens; - Initiating a national assessment on forage species, developing management plans for rangelands and pastures, and supporting local livelihood in villages while establishing effective system for controlled grazing; - Integration beyond the sector is relevant because forests serve various functions affecting other sectors (e.g. erosion control, water infiltration, biodiversity conservation, combating desertification) and they provide goods (fruits, medicine) which serve other sectors and/or overarching development goals (poverty reduction, sustainable development). **NARP** - Among the objectives of the forest program, the most important one decision is increasing forest area from 13% to 20% of the total country's land area. Furthermore, all the forest program goals will assure the socio-economic equilibrium of the forest services; - The impact of the program can also be measured by the mitigation of poverty in the poverty prone areas in the country. This can be looked at from the angle of generated physical changes, e.g., change in existing forests, creation of new forests (plantations), changes in erosion rates, increased jobs for people, increases in productivity, and changes in farming systems, etc.; - The NARP will create unprecedented level of direct and indirect employment opportunities for the years of the Programme especially for the poor segment of the population but also for the university graduated people. It will also lead to a high diversity of expertise and skills in forestry e.g. forest genes, nurseries, tree planting, silvicultural operations, resources exploitation and processing, data base, etc.;	**In addition to SDG 1 in Table 2:** - R&D programs to enhance crop/animal/human resiliency to forest fires can protect the livelihood and productive capacity of the poor; - Knowledge sharing on fire preparedness helps build resilience of the poor and vulnerable; - Increasing awareness on environmental protection can change behavior towards resource conservation, demand for products that cause deforestation, and unsustainable practices such as slash and burn.

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	- The impact of the program can also be measured by the mitigation of poverty in the poverty prone areas in the country. This can be looked at from the angle of generated physical changes, e.g., change in existing forests, creation of new forests (plantations), changes in erosion rates, increased jobs for people, increases in productivity, and changes in farming systems, etc. The communication strategy of the NARP should place emphasis on the direct or indirect impacts in the welfare of people. In the communication, there also is a need to avoid focusing excessively on physical accomplishment targets, but to stress targets that are more responsive to people's actual needs. NSFFM - While the link between forest fires, poverty and land-uses should be properly addressed, community participation is crucial at all levels of forest fire management; - To develop effective measures intending to reduce fire vulnerability, to increase ecological and social resilience to fire, and to prevent the occurrence of harmful fires and unsustainable fire regimes; - The rural population needs to be involved in forest economics. People need to be clearly informed about the damage wildfire causes to the long-term potential of their farming and livestock operations. It is also necessary to give precise information on who is, in fact, affected by fires, with a concentration on the effect on both public and private lands.	

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SDG Two: Zero Hunger · Hunger · Food access · Food security · Food affordability · Agricultural Productivity	NARP - The NARP will rely on new land for afforestation. It will require a solid inter-sectoral collaboration. It will constitute an opportunity for all sectors concerned with land use like agriculture, livestock, forestry, city councils, etc. to collaborate towards consensual land use planning system; - Overgrazing and overharvesting of forest resources is still a major cause of forest loss in the Beqaa region; - The forests in these protected areas play an important role in soil protection and water conservation. They are also used for fruit collection such as pine stone and carob fruit for molasses, medicinal and aromatic plant as well as for grazing. NSFFM - Changes in traditional land-use and lifestyles, depopulation of rural areas, increases in agricultural mechanization, decreases in grazing pressure and wood gathering and increases in the urbanization of rural areas are leading to the recovery of vegetation and an increase in accumulated fuel; - Modify risk through a number of means (i.e. traditional farming practices with some controlled and enforced livestock grazing in forests; encouragement of sustainable fuel wood collection; Incentives for farmers/herders not to burn crop residue and pastures during "fire danger times"; encouragement of Non-Wood Forest Products which can play a role at reducing risk; encouragement of "green fuel breaks" across the landscape; incentives for farmers to have ploughed fuel breaks around the perimeter of fields; - Promote the role of agricultural cooperatives in fire risk modifications where resources can be pooled by local farmers.	- Protecting income and assets of poor households from extreme events such as forest fires, erosion, flooding reduces incidence of hunger and malnutrition; - Increases protection against extreme events that cause crop loss and food inflation, which leads to a difficulty in acquiring nutritional needs; - Maintain the genetic diversity of seeds for tree improvement and conservation of forest genetic resources.

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SDG Three: Good Health and Well-being · Environment · Health · Pollution	NARP - Besides that, the 70,000 hectares when established with success and reach maturity will constitute important carbon pools, the four pools: underground, litter, dead wood and living standing wood. At an average of 10m3 growth per hectares per year, the 70,000 hectares of forest can sink annually an average of 175,000 tons of carbon. At maturity (30 years age), the forest will accumulate above 3.5 million tons of carbon. NSFFM - Among the factors that threaten the forests in Lebanon, fire constitutes the most dangerous one and causes severe ecological and economic losses and, sometimes, human injuries and death.	- Protection against forest fires indirectly reduces possible exposure to air pollutants that cause non-communicable diseases; - Air pollution (decrease in burning practices) mental health and well-being (conservation, restoration and sustainable management of natural areas); - Afforestation and reforestation forests adds carbon sinks and improves air quality.
SDG Four: Quality Education · Education · Awareness raising · Youth	NARP - Despite the fact that Lebanon has four faculties of Agriculture, no specific diploma on Forestry is delivered in the Lebanese education system; - The NARP requires preparing adequate capacities with the needed skills at the national and local levels for the planning, implementation, and monitoring of the afforestation/reforestation activities in the country. NSFFM - Local populations have a low level of awareness concerning their attitude to forest fire protection; - Almost all Mediterranean countries have adopted measures to increase public awareness of forest fires, and the focus is nearly always on accidentally caused fires. The target is the adult public - residents or tourists - located in areas of risk. School children are also the target of specific programmes; - It is important to set up a mechanism to educate and target the various land users groups of how to respond to a fire.	- Knowledge sharing, monitoring and dissemination of information on fire ecology, fire management and post-fire vegetation dynamics among all relevant actors can help build resiliency and mitigate the impact of fires; - Collect, conserve and disseminate traditional and local knowledge, innovations and practices related to biodiversity conservation.

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SDG Five: Gender Equality · Women · Gender	NFP - Support the socio-economic development of low-income villagers and communities, while empowering the role of women for a more balanced gender approach in all sectors of forestry; - Propositions of cross-cutting and targeted activities to ensure gender balance and women empowerment in the forestry; - Stakeholders in forests are all those who depend on or benefit from forest resources, or who decide on the control of or those who regulate access to forests. Participation requires a certain degree of organization and capacity and is therefore mostly in the hands of organized interest groups. They participate in NFP activities in various ways: directly or indirectly, actively or passively, in supporting or opposing roles. Community participation aims among many other things the mobilization of citizen-science program and the empowerment of women among other underprivileged groups; - Assess and revive traditional activities related directly or indirectly to forest in villages with women leadership; - 50 women and youth-based businesses are established from forest services.	- Support the earning potential and empowerment of women through the production of forest and non-wood forest products; - Develop inclusive community participation and forest management initiatives that ensure gender balance.
SDG Six: Clean Water Sanitation · Clean water · Drinking water · Wastewater · Water quality	Life below water is not addressed in the forest plans.	Conservation, restoration and sustainable management of water ecosystems.

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SDG Seven: Affordable & Clean Energy · Energy efficiency · Electricity transmission · Electricity distribution · Reliable energy · Affordable energy · GHG reduction · Mitigation · Energy security	NARP - The wood is the main fuel used in the mountainous areas during winter, part of it comes from the pruning activities of orchard tree. The other part has been collected from forests. The main source of the fuel wood is the oak forests. These forests sprout easily after cutting. Currently, the Ministry of Agriculture does not allow clear cutting of these forests. It delivers licenses for pruning or thinning, which, if done properly, contribute to the sustainability of the resource.	Prevention of deforestation from wood used for fuel sources (sustainable forest management and protection).
Highly Relevant SDG **SDG Eight: Decent Work and Economic Growth** · Jobs · Income · Employment	NFP - Supporting small enterprises through the development of value chains standards, for improved sustainable production of forests and rangelands value added goods; - Setting platforms for promoting the forest related services in forest ecosystems and rangelands (e.g. ecotourism, responsible tourism and pastoral tourism). Focusing on conserving the environment, enhancing the quality of life for local communities, and improving the forest related and ecotourism products and services to become a successful operation leading to socio-economic benefits. NSFFM - 2006, they covered approximately 13.5% of the overall area of Lebanon. Lebanese citizens, especially in rural communities, have traditionally benefited from forest resources in various ways: forest flora is exploited for beekeeping, while edible and medicinal plants, pine trees, firewood and charcoal are a valuable source of income; - Despite the increased efforts, fire issues increasingly threaten forest ecosystems and economic development in Lebanon. NARP - The Lebanese forests continue to supply wide array of good and services benefiting the local population in the first place but also the national economy in general. According the findings of the National Forest Assessment of Lebanon, 2006, the trend of demand of forest products is generally increasing;	No additional recommendations beyond SDG 8 in Table 2.

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	- In the absence of expansion of the forest resources to meet the soaring demand of forest products and services, the mounting demand is expected to apply considerable stress on the already degraded forests and associated natural vegetation; - The forest in Lebanon has played an important role in the economy of the society as well as in the wellbeing of the people who depended on it. Nowadays, despite the degradation, the forest is still a national asset providing valuable benefits to the local communities as well as to the national economy in terms of goods and services; - The NARP will create unprecedented level of direct and indirect employment opportunities for the years of the Programme especially for the poor segment of the population but also for the university graduated people. It will also lead to a high diversity of expertise and skills in forestry e.g. forest genes, nurseries, tree planting, silvicultural operations, resources exploitation and processing, data base, etc.; - When well designed and implemented securing broad participation of the stakeholders, the NARP will undoubtedly have huge economic, social and environmental impacts; - The tourism industry will benefit from the greening of the country, since Lebanon, is attractive to tourists today, will be more attractive in the future.	
SDG 9: Industry, Innovation, Infrastructure · Industry · Innovation · Infrastructure · Research and development	NFP - Launch and support green economic opportunities through the establishment of the needed infrastructure to improve the related services of forests and rangelands; - Supporting small enterprises through the development of value chains standards, for improved sustainable production of forests and rangelands value added goods. NARP - Establish sites with improved production capacity linking with the development of wood and non-wood forest product processing industry and with the people's needs in terms of goods and services	- A sustainable and resilient forest infrastructure supports economic development and human well-being; - Improve industrial production capacity and develop value added goods from forest and non-forest wood products (NFWP).

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	and improved employment opportunities; - industry will definitely help for long term sustainable forestry at limited cost; - Research Community: for the best implementation of this Programme, the role and inputs of the scientific community is unavoidable. There are many areas of the Programme where scientific backing is required. Among these areas we can mention some like seed quality and provenances, seedling production and health, tree planting and related costs, silviculture, etc.	
SDG 10: Reduced Inequalities · Equity · Inclusion	NFP - Mission: To ensure and uphold the restoration, development and resiliency of forest ecosystems, aiming at enhanced economic growth, poverty alleviation, and biodiversity conservation, while supporting innovative participatory approach to heighten the well-being of Lebanese citizens; - Stakeholders in forests are all those who depend on or benefit from forest resources, or who decide on the control of or those who regulate access to forests. Participation requires a certain degree of organization and capacity and is therefore mostly in the hands of organized interest groups. They participate in NFP activities in various ways: directly or indirectly, actively or passively, in supporting or opposing roles. Community participation aims among many other things the mobilization of citizen-science program and the empowerment of women among other underprivileged groups; - Political, economic and civil societal support for conservation can be considerably enhanced if their worth to human society at local, regional or global scales can be quantified and economically valued. This could also be incentive for better governance of socio-ecological systems for sustainable resource use. The Ecosystem Services and Human Wellbeing approach tries to bridge this knowledge gap by introducing ecosystem services into ongoing and new societal and policy discussions. NARP	- Provision of services to relocate those impacted by forest fires; - Support to individuals and communities in the short- and medium-term aftermath of the fire when relocation is necessary; - Provision of social safety nets, access to emergency response and disaster relief goods and services help cope with economic losses from extreme events, dampen impact on the vulnerable, therefore preventing further inequality.

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	- The communication strategy of the NARP should place emphasis on the direct or indirect impacts in the welfare of people. In the communication, there also is a need to avoid focusing excessively on physical accomplishment targets, but to stress targets that are more responsive to people's actual needs; - Public- private partnership with space for Small Farmers and processing.	
SDG 11: Sustainable Cities and Communities · Cities · Communities · Urban · Urbanization · Fuel efficient vehicles · Modal share shift · Public transportation · Accessibility · Mobility	NFP - In Lebanon, forest ecosystems play a major role in the life of villagers and city dwellers as source of provisioning, regulating and supporting services as well as cultural ones. They are sources of direct goods (e.g. charcoal, pine kernels, honey) and services (e.g. amenity, watershed protection, carbon sequestration). Villagers rely on direct and indirect products in their livelihood. Lebanese forests represent important hubs for city dwellers in search for recreational activities, which improve human well-being. Lebanese forests share is 0.5% of the national GDP. NSFFM - Increasingly, Lebanon's forests, which include remnants of valuable broad-leaved trees, conifer forests and evergreen trees that cover the Lebanese mountains in patches, are exposed to degradation due to urbanization, pests and diseases, fires, wars, climate change, human neglect, improper management, outdated laws, and poor law enforcement; - Another cause of increases in forest fuels is the shift of population from the rural areas to the cities. As a result, large stretches of marginal farmland, especially in mountain areas, have been left uncultivated and have been colonized by bush and even natural pine groves; - Land owners, users and managers have a major role in fire risk reduction. Participatory spatial planning processes, in large territorial units where large-scale disturbances such as harmful fires occur, are being adopted by some Mediterranean countries where fires have caused enormous damages in the last years. Participatory spatial planning has the objective to get the active involvement of all concerned stakeholders.	Conservation: protection of forest can also contribute to the protection of natural and cultural heritage.

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Highly Relevant SDG **SDG 12: Sustainable Consumption and Production** · Consumption · Production · Output · Productivity · Efficiency	**NFP** - Supporting small enterprises through the development of value chains standards, for improved sustainable production of forests and rangelands value added goods. **NARP** - Valorizing the wood and non-wood forest products and the development of their related industry and market; - Collaborating with international development organizations as these can contribute funds and world success stories to the national forest program; - Facilitating and encouraging public awareness and participation by making information widely available; - The NARP will be very technology demanding from seed procurement until exploitation of mature forests. This roadmap is developed with in mind the importance of implementing the 40 million forest tree planting Programme at highest level of performance based on state-of-the-art technology.	No additional recommendations beyond SDG 12 in Table 2.
SDG 13: Climate Change · Climate Change · GHG emissions · Resilience · Mitigation · Adaptation · Nationally Determined Contribution (NDC)	All three plans have mainstreamed climate change: **NFP** - As a result of the changes in forest ecosystem functioning resulting from anthropogenic factors and climate change, forests became sort of fragmented habitats with high vulnerability; - Many forest species in Lebanon have been identified as vulnerable to climate change. The vulnerability traits will be expressed by a decrease in the regeneration rate, population rate and overall area; - It is noticeable that Lebanon is being affected by climate change. The impacts are revealed by an increase in forest fires incidents, pest and disease outbreaks as well as invasiveness of alien species. **NARP** - Today's forest of Lebanon is widely depleted and shrunk to small and	- Reference role of the Forest sector in the NDC; - Align policy targets with the NDC.

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	fragmented woodlots which exacerbated poverty, climate change, soil erosion and land degradation. NSFFM - Increasingly, Lebanon's forests, which include remnants of valuable broad-leaved trees, conifer forests and evergreen trees that cover the Lebanese mountains in patches, are exposed to degradation due to urbanization, pests and diseases, fires, wars, climate change, human neglect, improper management, outdated laws, and poor law enforcement; - A strongly human-influenced landscape was created by the severe human pressure and resulting activities like burning, cutting and grazing on non-arable lands and clearing, terracing, cultivating, and later abandonment of arable portions; - The climate changes that are predicted to occur in the near future as a result of releasing greenhouse gases are likely to induce increased fire risk.	
SDG 14: Life Below Water · Water · Sea · Lakes · Streams · Rivers · Mediterranean · Marine life · Run-off · Water pollution · Coastal	Life below water is not addressed in the forest plans.	No recommendations.

Table 4: Recommendation for Estimation of Impact of SDGs

Key Words	Description in the Policy/Strategy/Action Plan	Recommendation for Estimation of Impact/Integration of Impact
Primary SDG **SDG 15: Life on Land** · Ecosystems · Biodiversity · Forests · Reforestation/ afforestation · Seed bank · Genetic	NFP - Lebanon is home to 1.11% of the world's plant species and 2.63% of the reptile, bird and mammal species. This unique biodiversity is generated mainly from the geology of its landscape, human practices over the centuries, along with the ecosystem transformation and adaptation to climate change; - High biodiversity richness in forests has a major impact on the ecosystem functioning. This factor strengthens forests in plant production, ecological resilience, resistance to environmental perturbations as well as pests and diseases. Biodiversity has an implication on ecosystem processes such as soil nitrogen levels, erosion control and soil formation, water catchment and storage, plant productivity, and pest and disease cycles. NARP - All forest types included cover 13.6% of the land area of Lebanon; - The runoff and the carried topsoil in it annually from 70,000 hectares (7% of the country land area) of bare land or with sparse vegetation can be easily estimated. It is huge. It goes to the artificial lakes or to the sea. Reducing the runoffs and soil erosion will have considerable impact on the water quality, soil conservation and productivity of the land; - Considering its high biological diversity, fourteen protected areas have been created in Lebanon. The forests in these protected areas play an important role in soil protection and water conservation. They are also used for fruit collection such as pine stone and carob fruit for molasses, medicinal and aromatic plant as well as for grazing; - Like all Mediterranean forests, the Lebanese forest plays an important role in soil protection especially in steep slope calcareous and limestone soils. Another important role is water conservation. For this reason, many permanent springs are found at various altitudes in areas exposed to more than seven dry months per year. Furthermore, the Lebanese forests are important source for all types of biodiversity and genetic resources.	**In addition to SDG 15 in Table 1:** - Sustainable forest management contributes to restoring degraded land and soil; - Ecosystems and habitat conservation (sustainable agriculture and management of natural areas); - Conservation: reduces the degradation of natural habitats, halts the loss of biodiversity.

Table 4: Recommendation for Estimation of Impact of SDGs

Key Words	Description in the Policy/Strategy/Action Plan	Recommendation for Estimation of Impact/Integration of Impact
	NSFFM - Sustain the reforestation activities of degraded and abandoned forested lands through the adoption of various restoration methods; - Fire is the main cause of damaging forests, other wooded lands along with other lands in the countries of the Mediterranean Basin in general and in Lebanon in particular. It causes enormous economic and ecological damage as well as loss of human life; - Assisting the reestablishment of healthy forest conditions, restoring the ecosystem as a whole and not only the trees; - The enrichment of the forest composition in order to make it more resilient to fire; - Among the objectives of the forest program, the most important one decision is increasing forest area from 13% to 20% of the total country's land area. Furthermore, all the forest program goals will assure the socio-economic equilibrium of the forest services.	
SDG 16: Peace, Justice & Strong institutions · Capacity · Legislation · Regulation · Legal framework · Policy · Participatory · Inclusive (decision-making)	**NFP** - Update forest legislation to be aligned with national priorities, national strategies, policies and actions plans. **NARP** - When well designed and implemented securing broad participation of the stakeholders, the NARP will undoubtedly have huge economic, social and environmental impacts; - The local population's involvement will also have positive effect on the success of the afforestation campaigns, but mainly on the future of the established young plantations. This can lay down the groundwork for sustainable and socially responsible forest management. **NSFFM** - A shift is needed towards more holistic, inter-sectoral and participatory approaches to forest fire management in policy, implementation, rehabilitation and monitoring. This requires strengthening the capacity of the concerned authorities in order to address the different issues	- Increases inclusive, participatory decision making (by involving communities); - Strengthen the governance of forestland through setting up adapted mechanisms for direct responsiveness, efficient accountability and active communication.

Table 4: Recommendation for Estimation of Impact of SDGs

Key Words	Description in the Policy/Strategy/Action Plan	Recommendation for Estimation of Impact/Integration of Impact
	related to forest fires; - Lebanon lacks the necessary policy measures and management capacities to address a number of forest protection measures related to fire management including monitoring, prediction (early warning), preparedness, prevention, suppression and restoration; - Review legislations, including revision of current legislation, drawing new laws, empowerment of law enforcement authorities: forest law, land zoning and classification law and land tenure law).	
Highly Relevant SDG **SDG 17: Partnerships for the Goals** · Resource · Financing mechanism · Public-Private Partnerships	NFP - There are different national policies, laws, regulations, strategies and plans, which govern forests in Lebanon, and that are either outdated, or comprising gaps; - The Lebanese National Forest Program is a plan of actions that defines the government's role in the forestry sector and ensures the coordination and cooperation mechanisms among all public and private sectors; - Initiate and promote private investment and partnership between public and private sectors in the development of forests, OWL and rangelands. NARP - Currently there is no formulated policy for the forest sector; - This is not impossible to happen under an approach where the convinced private sector by the investment opportunities offered by the forest sector will bring funds to forestry projects. Besides its capital, the private sector has ideas that can be materialized into projects of considerable value to the investor as well as to the local people and the national economy as whole, e.g. wood and non-wood forest products small industry, ecotourism, etc. The private sector involvement in the national forest program will engender a valuable added value that should be positively considered by the authorities; - Besides its capital, the private sector has ideas that can be materialized	No additional recommendations beyond SDG 17 in Table 2.

Table 4: Recommendation for Estimation of Impact of SDGs

Key Words	Description in the Policy/Strategy/Action Plan	Recommendation for Estimation of Impact/Integration of Impact
	into projects of considerable value to the investor as well as to the local people and the national economy as whole, e.g. wood and non-wood forest products small industry, ecotourism, etc. The private sector involvement in the national forest program will engender a valuable added value that should be positively considered by the authorities; - The NARP is an opportunity for partnerships between stakeholders particularly between the public and the private sectors and injection of additional financial resources in the forest sector. The NARP should offer favorable conditions for lucrative and rewarding investments by the private community in the forest sector. NSFFM - Secure additional financial resources to respond to necessary needs of equipment and tools, as well as training and capacity building programs, among others to empower forest fire prevention and control along with forest landscape restoration; - Some community-based organizations and active NGOs are playing a very important role in fire prevention and suppression in Lebanon. Such organizations should be encouraged and supported by the Government and international organizations, bi-lateral and multi-lateral partners; - The establishment of policies and economic instruments to support land owners, users and managers in the adoption of risk reduction management practices and land uses.	

Annex I: Lead Institution per SDG in Lebanon

To be determined: Lead institutions per theme are currently being determined. Results of the institutional leadership will be posted here in due time.

Theme: People   Leading Institution: TBD

1 NO POVERTY

2 ZERO HUNGER

3 GOOD HEALTH AND WELL-BEING

4 QUALITY EDUCATION

5 GENDER EQUALITY

10 REDUCED INEQUALITIES

Theme: Planet   Leading Institution: TBD

6 CLEAN WATER AND SANITATION

7 AFFORDABLE AND CLEAN ENERGY

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

13 CLIMATE ACTION

14 LIFE BELOW WATER

15 LIFE ON LAND

Theme: Prosperity   Leading Institution: TBD

8 DECENT WORK AND ECONOMIC GROWTH

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

11 SUSTAINABLE CITIES AND COMMUNITIES

Theme: Peace   Leading Institution: TBD

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

Theme: Data and Statistics   Leading Institution: TBD

Cross-cutting theme:

17 PARTNERSHIPS FOR THE GOALS

Annex II: Indicators

A cohesive and integrated indicator framework that synchronizes SDG and NDC progress is essential for coordinated implementation and joint progress assessment. Lebanon has yet to nationalize the SDG indicators which provides an opportunity to include climate focused indicators into the nationalized approach so that both agendas can be assessed through a mutual set of indicators.

The absence of nationalized SDG indicators withstanding, a robust database of national level data can be found through the SDG API database. The database provides data from global sources at the national level that correspond to the Global SDG Indicator Framework, making comparisons of SDG progress across countries easily accessible and consistent.

In addition to utilization of the SDG global indicator framework, additional indicators are needed to effectively and cohesively monitor both agendas. As part of this research, identification of the targets, goals, data points and/or indicators within the NDC, Third National Communication and within specific plans and policies that comprise Lebanon's NDC were identified to further provide a basis for developing an integrated indicator framework. The final product should be a combined list of indicators that incorporates the SDG global framework complemented by additional indicators that are climate focused, and germane to the goals of the specific plan/policy.

The National Forest Program identifies multiple indicators under each operational objective. This set of indicators are a good starting point at considering the integration of forestry indicators with the SDG indicator framework. Many of the indicators included in the NFP may be too granular or qualitative for inclusion in a final 'high level' SDG/NDC indicator framework, however. Annex II shows the indicators in the SDG framework related to forestry (SDG 15) as well as some potential additional indicators that could be added for a more robust framework. Further, coordination with indicators developed for the National Biodiversity Strategic Action Plan (NBSAP) and the other forest plans would be recommended to avoid duplicative efforts.

Annex II, Table 1: SDG Indicator Frameworks and Other Potential Indicators

SDG	Indicator
15.1 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	15.1.1: Forest area as a proportion of total land area (percent)
	15.1.1: Forest area (thousands of hectares)
	15.1.1: Land area (thousands of hectares)
	15.1.2: Average proportion of Terrestrial Key Biodiversity Areas (KBAs) covered by protected areas (percent)
	15.1.2: Average proportion of Freshwater Key Biodiversity Areas (KBAs) covered by protected areas (percent)
	15.1.2 Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type
15.2 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	15.2.1: Proportion of forest area with a long-term management plan (percent)
	15.2.1: Proportion of forest area within legally established protected areas (percent)
	15.2.1: Forest area net change rate (percent)
	15.2.1: Above-ground biomass in forest per hectare (tonnes per hectare)
	15.2.1: Forest area certified under an independently verified certification scheme (thousands of hectares)
	Other potential indicators: ○ CO_2 Removals from forested areas (in tons) per year ○ Number of trees planted annually ○ % of Land affected by desertification ○ Annual tree nursery productivity ○ Annual afforestation / reforestation in hectares
15.3 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	15.3.1: Proportion of land that is degraded over total land area (percent)
	Other potential Indicators: ○ % of degraded sites rehabilitation plans are implemented
15.4 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	15.4.1: Average proportion of Mountain Key Biodiversity Areas (KBAs) covered by protected areas (percent)
	15.4.2: Mountain Green Cover Index
	15.4.2: Mountain green cover area (square kilometers)
	15.4.2: Mountain area (square kilometers)

Annex II, Table 2: SDG Indicator Frameworks and Other Potential Indicators

SDG	Indicator
15.5 Take urgent and significant action to reduce	15.5.1: Red List Index

the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species	Other potential indicators o The percentage of biomes in protected areas, weighted by national composition of biomes o Species protection index: The average area of species' distributions in a country with protected areas o Protected area representativeness index: The extent to which terrestrial protected areas are ecologically representative o Species habitat index: The proportion of habitat within a country remaining, relative to a baseline set in the year 2001 o Total number of ecosystems considered vulnerable to climate change o Number of ecosystems with adaptation measures to climate change o Percentage of climate change adaptation issues integrated in national plans and strategies o % of known flora and fauna species identified o % of threatened species in which conservation actions are implemented o % of economically important fauna and flora is conserved In-situ and Ex-situ o % of natural terrestrial and marine ecosystems protected total area of nature reserves as percentage of total land area o % of all natural ecosystems that are sustainably managed and properly considered in spatial planning implementation, including maritime spatial planning o Gap between ecological footprint and biocapacity o % of degraded sites rehabilitation plans are implemented

PEOPLE	1 NO POVERTY **Goal 1.** **End poverty in all its forms everywhere**	1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than $1.25 a day
		1.2 By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions
		1.3 Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable
		1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance
		1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters
		1.a Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to implement programmes and policies to end poverty in all its dimensions
		1.b Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions

PEOPLE	2 ZERO HUNGER **Goal 2.** **End hunger, achieve food security and improved nutrition and promote sustainable agriculture**	2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round
		2.2 By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons
		2.3 By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment
		2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality
		2.5 By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed
		2.a Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least developed countries
		2.b Correct and prevent trade restrictions and distortions in world agricultural markets, including through the parallel elimination of all forms of agricultural export subsidies and all export measures with equivalent effect, in accordance with the mandate of the Doha Development Round
		2.c Adopt measures to ensure the proper functioning of food commodity markets and their derivatives and facilitate timely access to market information, including on food reserves, in order to help limit extreme food price volatility

PEOPLE	**3 GOOD HEALTH AND WELL-BEING** **Goal 3.** **Ensure healthy lives and promote well-being for all at all ages**	3.1 By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births
		3.2 By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births
		3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases
		3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being
		3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol
		3.6 By 2020, halve the number of global deaths and injuries from road traffic accidents
		3.7 By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes
		3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all
		3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination
		3.a Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate
		3.b Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all
		3.c Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States
		3.d Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks
PEOPLE	**4 QUALITY EDUCATION** **Goal 4.** **Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all**	4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes
		4.2 By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education
		4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university
		4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship
		4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations
		4.6 By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy
		4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development
		4.a Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all
		4.b By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries
		4.c By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States

PEOPLE	**5** GENDER EQUALITY **Goal 5.** **Achieve gender equality and empower all women and girls**	5.1 End all forms of discrimination against all women and girls everywhere
		5.2 Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation
		5.3 Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation
		5.4 Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate
		5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life
		5.6 Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Programme of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences
		5.a Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws
		5.b Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women
		5.c Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels

PEOPLE	**10** REDUCED INEQUALITIES **Goal 10.** **Reduce inequality within and among countries**	10.1 By 2030, progressively 10.1 By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average of the population at a rate higher than the national average
		10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status
		10.3 Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard
		10.4 Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality
		10.5 Improve the regulation and monitoring of global financial markets and institutions and strengthen the implementation of such regulations
		10.6 Ensure enhanced representation and voice for developing countries in decision-making in global international economic and financial institutions in order to deliver more effective, credible, accountable and legitimate institutions
		10.7 Facilitate orderly, safe, regular and responsible migration and mobility of people, including through the implementation of planned and well-managed migration policies
		10.a Implement the principle of special and differential treatment for developing countries, in particular least developed countries, in accordance with World Trade Organization agreements
		10.b Encourage official development assistance and financial flows, including foreign direct investment, to States where the need is greatest, in particular least developed countries, African countries, small island developing States and landlocked developing countries, in accordance with their national plans and programmes
		10.c By 2030, reduce to less than 3 per cent the transaction costs of migrant remittances and eliminate remittance corridors with costs higher than 5 per cent

PLANET	**6 CLEAN WATER AND SANITATION** **Goal 6.** **Ensure availability and sustainable management of water and sanitation for all**	6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all
		6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations
		6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally
		6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity
		6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate
		6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes
		6.a By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies
		6.b Support and strengthen the participation of local communities in improving water and sanitation management

PLANET	**7 AFFORDABLE AND CLEAN ENERGY** **Goal 7.** **Ensure access to affordable, reliable, sustainable and modern energy for all**	7.1 By 2030, ensure universal access to affordable, reliable and modern energy services
		7.2 By 2030, increase substantially the share of renewable energy in the global energy mix
		7.3 By 2030, double the global rate of improvement in energy efficiency
		7.a By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology
		7.b By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States, and land-locked developing countries, in accordance with their respective programmes of support

PLANET	12 RESPONSIBLE CONSUMPTION AND PRODUCTION **Goal 12. Ensure sustainable consumption and production patterns**	12.1 Implement the 10-year framework of programmes on sustainable consumption and production, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries
		12.2 By 2030, achieve the sustainable management and efficient use of natural resources
		12.3 By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses
		12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment
		12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse
		12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle
		12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities
		12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature
		12.a Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production
		12.b Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products
		12.c Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities

PLANET	13 CLIMATE ACTION **Goal 13. Take urgent action to combat climate change and its impacts**	13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries
		13.2 Integrate climate change measures into national policies, strategies and planning
		13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning
		13.a Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly $100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible
		13.b Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities

PLANET	14 LIFE BELOW WATER Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development	14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution
		14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans
		14.3 Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels
		14.4 By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics
		14.5 By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information
		14.6 By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation
		14.7 By 2030, increase the economic benefits to Small Island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism
		14.a Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular small island developing States and least developed countries
		14.b Provide access for small-scale artisanal fishers to marine resources and markets
		14.c Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in UNCLOS, which provides the legal framework for the conservation and sustainable use of oceans and their resources, as recalled in paragraph 158 of The Future We Want
PLANET	15 LIFE ON LAND 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	15.1 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
		15.2 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
		15.3 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
		15.4 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
		15.5 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
		15.6 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
		15.7 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
		15.8 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
		15.9 By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts
		15.a Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems
		15.b 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
		15.c 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

8 DECENT WORK AND ECONOMIC GROWTH **Goal 8.** **Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all**	8.1 Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 per cent gross domestic product growth per annum in the least developed countries
	8.2 Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors
	8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services
	8.4 Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programmes on sustainable consumption and production, with developed countries taking the lead
	8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value
	8.6 By 2020, substantially reduce the proportion of youth not in employment, education or training
	8.7 Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms
	8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment
	8.9 By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products
	8.10 Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all
	8.a Increase Aid for Trade support for developing countries, in particular least developed countries, including through the Enhanced Integrated Framework for Trade-Related Technical Assistance to Least Developed Countries
	8.b By 2020, develop and operationalize a global strategy for youth employment and implement the Global Jobs Pact of the International Labour Organization

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE **Goal 9.** **Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation**	9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all
	9.2 Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries
	9.3 Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets
	9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities
	9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending
	9.a Facilitate sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, least developed countries, landlocked developing countries and small island developing States
	9.b Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities
	9.c Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020

PROSPERITY	**11 SUSTAINABLE CITIES AND COMMUNITIES** **Goal 11.** **Make cities and human settlements inclusive, safe, resilient and sustainable**	11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums
		11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons
		11.3 By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries
		11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage
		11.5 By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations
		11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management
		11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities
		11.a Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning
		11.b By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels
		11.c Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials
PEACE	**16 PEACE, JUSTICE AND STRONG INSTITUTIONS** **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**	16.1 Significantly reduce all forms of violence and related death rates everywhere
		16.2 End abuse, exploitation, trafficking and all forms of violence against and torture of children
		16.3 Promote the rule of law at the national and international levels and ensure equal access to justice for all
		16.4 By 2030, significantly reduce illicit financial and arms flows, strengthen the recovery and return of stolen assets and combat all forms of organized crime
		16.5 Substantially reduce corruption and bribery in all their forms
		16.6 Develop effective, accountable and transparent institutions at all levels
		16.7 Ensure responsive, inclusive, participatory and representative decision-making at all levels
		16.8 Broaden and strengthen the participation of developing countries in the institutions of global governance
		16.9 By 2030, provide legal identity for all, including birth registration
		16.10 Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements
		16.a Strengthen relevant national institutions, including through international cooperation, for building capacity at all levels, in particular in developing countries, to prevent violence & combat terrorism & crime
		16.b Promote and enforce non-discriminatory laws and policies for sustainable development

CROSS-CUTTING SDG	**17** PARTNERSHIPS FOR THE GOALS **Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development**	17.1 Strengthen domestic resource mobilization, including through international support to developing countries, to improve domestic capacity for tax and other revenue collection
		17.2 Developed countries to implement fully their official development assistance commitments, including the commitment by many developed countries to achieve the target of 0.7 per cent of ODA/GNI to developing countries and 0.15 to 0.20 per cent of ODA/GNI to least developed countries; ODA providers are encouraged to consider setting a target to provide at least 0.20 per cent of ODA/GNI to least developed countries
		17.3 Mobilize additional financial resources for developing countries from multiple sources
		17.4 Assist developing countries in attaining long-term debt sustainability through coordinated policies aimed at fostering debt financing, debt relief and debt restructuring, as appropriate, and address the external debt of highly indebted poor countries to reduce debt distress
		17.5 Adopt and implement investment promotion regimes for least developed countries
		17.6 Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism
		17.7 Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed
		17.8 Fully operationalize the technology bank and science, technology and innovation capacity building mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology
		17.9 Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the sustainable development goals, including through North-South, South-South and triangular cooperation
		17.10 Promote a universal, rules-based, open, non-discriminatory and equitable multilateral trading system under the World Trade Organization, including through the conclusion of negotiations under its Doha Development Agenda
		17.11 Significantly increase the exports of developing countries, in particular with a view to doubling the least developed countries' share of global exports by 2020
		17.12 Realize timely implementation of duty-free and quota-free market access on a lasting basis for all least developed countries, consistent with World Trade Organization decisions, including by ensuring that preferential rules of origin applicable to imports from least developed countries are transparent and simple, and contribute to facilitating market access
		17.13 Enhance global macroeconomic stability, including through policy coordination and policy coherence
		17.14 Enhance policy coherence for sustainable development
		17.15 Respect each country's policy space and leadership to establish and implement policies for poverty eradication and sustainable development
		17.16 Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries
		17.17 Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships
		17.18 By 2020, enhance capacity-building support to developing countries, including for least developed countries and small island developing States, to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts
		17.19 By 2030, build on existing initiatives to develop measurements of progress on sustainable development that complement gross domestic product, and support statistical capacity-building in developing countries

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