

SDG-NDC Synchronization: Assessment and Recommendations

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

MINISTRY OF ENVIRONMENT
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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:	Transport
Sub-sector:	Private Land Transport
Source document:	Nationally Appropriate Mitigation Action (NAMA) in Lebanon's Private Road Transport Sector (FEVs)
Ministry:	Ministry of Environment
Developed by:	The UNDP Low Emission Capacity-Building (LECB) Programme
URL:	http://climatechange.moe.gov.lb/viewfile.aspx?id=273

Plan/ Policy Overview

The purpose of the Transport NAMA is to facilitate a shift towards fuel efficient vehicles (FEVs) in Lebanon, thus increasing fuel efficiency and significantly reducing greenhouse gas emissions. The Transport NAMA is aimed at private vehicles as opposed to mass transit; the primary intervention entails a scrappage and replacement with FEVs program. The goal of the Transport NAMA is to “achieve significant reductions in GHG (and non-GHG) emissions and fuel consumption arising from the road transport sector in Lebanon and particularly from the ageing and highly polluting car fleet”. The plan addresses climate change in multiple locations and links co-benefits of the NAMA implementation strategies to specific SDG targets. Language in the NAMA links the plans strategies directly to SDGs: SDG 3: Good Health and Well-Being; SDG 7: Ensure Access to Affordable, Reliable, Sustainable and Modern Energy for all; SDG 8: Decent Work and Economic Growth, SDG 11: Sustainable Cities and Communities, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, and SDG 17: Partnerships for the Goals. This assessment finds additional elements of the NAMA that address other SDGs including poverty and income, water and sanitation, and more. Per the NAMA, the main SDG co-benefits are as follows:

- Stopping the use of old and inefficient cars;
- Reduction of air pollution;
- Reduction of fuel consumption and hence reduction of GHG emissions;
- Reduction of casualties from accidents;
- Mobilization of additional financial sources; and
- Promoting environmentally sound technologies.

Links to Climate Change and Sustainable Development

NAMAs can contribute to the achievement of Nationally Determined Contributions (NDCs) through the implementation of concrete actions. In Lebanon's NDC to the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement, the overall mitigation targets do not include specific transport targets. However, where the NDC mentions the energy sector, this covers power and fuel consumption in all sectors, including industry, transport, households, agriculture, etc.

<i>Unconditional Target</i>	A GHG emission reduction of 15% compared to the Business-As-Usual (BAU) scenario in 2030
<i>Conditional Target</i>	A GHG emission reduction of 30% compared to the Business-As-Usual (BAU) scenario in 2030

The plan references Lebanon's NDC and links co-benefits of the NAMA implementation strategies to specific SDG targets. As per the NAMA, the main SDG co-benefits are as follows:

Co-benefits of the NAMA and contribution to SDGs	
SDG 3: Good Health and Well-being 3.6: By 2020, halve the number of global deaths and injuries from road traffic accidents 3.9: Substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water, and soil pollution and contamination	<ul style="list-style-type: none"> Reduction of hazardous pollution from emissions resulting from private road transport By replacement of old cars with newer cars, increase the safety standards of cars with the potential to reduce the severity and number of injuries and deaths associated with road traffic
SDG 7: Affordable and Clean Energy 7.3: Double the global rate of improvement in energy efficiency	<ul style="list-style-type: none"> Increase the fuel efficiency per kilometer of private cars in Lebanon Promote and increase awareness of energy efficiency in the transport sector
SDG 8: Decent Work and Economic Growth 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 8.10: Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all	<ul style="list-style-type: none"> Provide incentives for local private sector engagement (including private car owners, taxi owners and operators, car dealers, car scrappage facilities) that lead to growth of local enterprises, job creation and access to financial services Provide innovative ideas and a potential shift towards fuel efficient vehicles across the private sector involved in car purchase and registration Provide capacity building and support for local financial institutions to support sustainable development and fuel efficiency activities under the NAMA
SDG 11: Sustainable Cities and Communities 11.6: Reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management	<ul style="list-style-type: none"> Provide capacity building and awareness creation to key local stakeholders on fuel efficiency in private road transport and climate change, and hence reduce air pollution and improve air quality associated with road transport in cities and urban areas in Lebanon By replacing of old cars by newer cars (FEVs), reduce the frequency of car breakdowns leading to accidents, traffic jams and congestion
SDG 12: Responsible Consumption and Production 12.2: Achieve the sustainable management and efficient use of natural resources 12.8: 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	<ul style="list-style-type: none"> Provide capacity building and awareness creation to key local stakeholders and the public on fuel efficiency and more sustainable and efficient use of fossil fuels and natural resources Improve the information base and knowledge about fuel consumption and the emissions level in road transport and hence generate more transparency, which in turn would lead to improved capacity to move towards more sustainable consumption patterns of fuel used in road transport Improve the regulatory framework and establish incentives that support more sustainable consumption of natural resources (including fossil fuels) in the road transport sector in Lebanon
SDG 12: Responsible Consumption and Production	<ul style="list-style-type: none"> Provide capacity-building and awareness- creation among key local stakeholders for waste management and waste avoidance Reduce the practice of open dumping and non-sanitary landfills Encourage recycling/ reuse and thus valorize waste
SDG 13: Climate Action 13.2: Integrate climate change measures into national policies, strategies and planning	<ul style="list-style-type: none"> Support the enactment of laws that specify emission limits and/or environmental standards for private passenger vehicles, first as part of the scrappage program and possibly subsequently at a national level beyond the scope of NAMA

13.3: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning	<ul style="list-style-type: none"> · Provide capacity building and training on climate change mitigation and its impacts to key institutions and stakeholders in the road transport sector · Create and promote awareness broadly of the relation between fuel efficiency in road transport and climate change mitigation
<p>SDG 17: Partnerships for the Goals</p> <p>17.1: Strengthen domestic resource mobilization, including through international support to developing countries, to improve domestic capacity for tax and other revenue collection</p> <p>17.3: Mobilize additional financial resources for developing countries from multiple sources</p> <p>17.7: Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favorable terms, including on concessional and preferential terms, as mutually agreed</p> <p>17.17: Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships</p>	<ul style="list-style-type: none"> · Support the improvement and/or establishment of an incentive scheme for domestic resource mobilization in the road transport sector and the mobilization of additional financial sources · Provide capacity building and support to domestic institutions on incentive scheme development and an increase in fuel tax · Provide incentives for local private sector engagement that lead to the growth of local enterprises, job creation and access to financial services (including through PPPs) · Promote the introduction and dissemination of FEVs in Lebanon on favorable terms (through establishing an incentive scheme based on domestic resources supplemented by international financial sources)

The following assessment identifies how the specific actions in the Transport NAMA relate to the SDG targets (Tables 1 and 2). It identifies, how an increase in the share of fuel-efficient vehicles for example, can positively or negatively impact SDG targets.

Table 1: Primary SDG Target




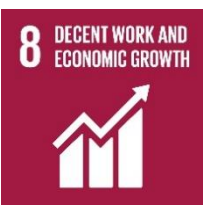


Primary SDG	How does the Transport NAMA contribute to this SDG? (examples)
	<ul style="list-style-type: none"> - Reduces air pollution and reduces air quality impact of cities - Replacement of older cars will reduce emissions through reduced frequency of car breakdowns leading to accidents, traffic jams and congestion - Improved regulatory framework and established incentives that support more sustainable consumption of natural resources (including fossil fuels) in the road transport sector in Lebanon can enhance sustainable urbanization - Contributes to sustainable transport through more efficient vehicles

Table 2: Highly Relevant SDG Targets

Relevant SDG	How does the Transport NAMA contribute to this SDG? (examples)
	<ul style="list-style-type: none"> - Energy efficiency (fuel efficiency) reduces air pollution from reduced fuel consumption - By replacing of old cars by newer cars (FEVs), reduce the frequency of car breakdowns leading to accidents, traffic jams and congestion - Replacing old cars with FEV will improve air quality through reduced GHG emissions
	<ul style="list-style-type: none"> - Increases energy efficiency (more efficient vehicles)
	<ul style="list-style-type: none"> - Innovative ideas and a shift towards fuel efficient vehicles across the private sector involved in car purchase and registration promotes development-oriented policies - Expands access to financial services through the promotion of FEV financial incentives - Incentives for local private sector engagement (including private car owners, taxi owners and operators, car dealers, car scrappage facilities) that lead to growth of local enterprises, job creation and access to financial services - Expanded access to financial services for fuel efficient vehicles can grow the auto industry in a more sustainable and innovative way.
	<ul style="list-style-type: none"> - Increases resource efficiency in the transport industry and supports adoption of clean (more efficient) technologies
	<ul style="list-style-type: none"> - Increases resource efficiency (more efficient / reduced use of fossil fuels for transport) - Capacity building and training on climate change mitigation and its impacts to key institutions and stakeholders in the road transport sector will spread awareness for sustainable development - Improved regulatory framework and established incentives that support more sustainable consumption of natural resources (including fossil fuels) in the road transport sector in Lebanon



- Incentives for local private sector engagement (including private car owners, taxi owners and operators, car dealers, car scrappage facilities) that lead to growth of local enterprises, job creation and access to financial services
- Support the improvement and/or establishment of an incentive scheme for domestic resource mobilization in the road transport sector and the mobilization of additional financial sources
- Provide capacity building and support to domestic institutions on incentive scheme development and an increase in fuel tax

Summary of Recommendations

Private transport strategies, including the Transport NAMA, should continue to demonstrate co-benefits to specific SDG targets, and the NDC goals. In doing so, there should be narrative that focuses on the plan's broader societal goals and impact on addressing climate change. The switch to fuel efficient vehicles is highly relevant to at least fifteen SDG targets and advances the NDC goals in reducing GHG emissions, and it should therefore be demonstrated in the plan so that common entry points can be better understood within and among Lebanon's sustainable development related plans and policies. This assessment found additional SDG linkages beyond what is contained in the current NAMA such as:

- Fuel-efficient vehicles can greatly reduce fuel consumption, therefore, reducing the household budget, which could potentially positively impact SDG 1 on poverty (as long as the financial incentives off-set the cost of obtaining a fuel-efficient vehicles).
- Further, future iterations of the NAMA could also consider how successful implementation would potentially impact life on land SDG 15 through reductions in pollution which will help to protect natural habitats and ecosystems.

Future iterations of the NAMA, or any private transport strategy, should continue to consider the potential impact on all SDG targets 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 opportunities in portraying fuel-efficient vehicles through a more holistic approach; looking through the lens of the SDGs and NDC might result in a different prioritization of plan strategies.

- Transport NAMA key indicators should be developed and synthesized with other plans and policies, to include a broader assessment of meeting SDG targets and NDC goals.
- 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 private vehicle transport 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 the Transport NAMA recommendations 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 energy efficiency could have on the SDGs.

Table 3: Potential Negative Linkages to SDGs

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	Reduction of old cars can have a negative impact on low-income families by driving up the cost of transport through mandating newer vehicles
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Sustainable Development Anchors: what is there and what is missing?

A key word search and review of the Transport NAMA identifies where the plan explicitly addresses components of sustainable development and climate change. 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. For example, mass transit has a strong linkage to Sustainable Cities and Communities (SDG 11) but these linkages are not included as part of the Transport NAMA narrative. Likewise, education and awareness raising plays a central role in the NAMA, however, the narrative does not place it in the context of sustainable development.

The following is an assessment of sustainable development and climate change language included the Transport NAMA and recommendations for creating linkages in future iterations of the plan (Table 4). The below recommendations tackle the primary SDG, the other important 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
SDG One: No Poverty <ul style="list-style-type: none"> · Low-income · Poor · Poverty · Disadvantaged · Underprivileged 	<ul style="list-style-type: none"> - In the absence of the NAMA, the car fleet is expected to continue to be ageing and polluting since the market segment targeted by the NAMA is of relatively lower socio-economic status than present owners of new cars and may not be able to afford to buy newer cars if the incentives stipulated by the NAMA are not in place; - Transformation of the existing car fleet in Lebanon through the car scrappage program and whether the IFC would support such an initiative, in terms of guaranteeing loans to low-income households (i.e. taxi drivers) willing to buy a new car under the scrappage program; - This may be relevant for taxi drivers who have a higher risk profile for borrowing purposes because of their unstable incomes; - There are more than 20 microfinance institutions in Lebanon that offer lending services and business development support for low income individuals who might otherwise not be able to have access to loans from banks; - The owners of the old cars targeted by the NAMA are expected to belong to lower to medium income groups; - In the baseline scenario, private individuals owning old cars in Lebanon, who generally belong to lower income brackets, may not be encouraged to renew their cars in the absence of financial incentives such as subsidies, soft loans, or tax waivers offered by the government; - Individuals with unstable or no incomes or with no assets that can be used as collateral would continue to have difficulties in gaining access to loans from commercial banks. 	<p>Proper financial incentives can get lower-income people into more fuel-efficient vehicles thus lowering the expense of fuel (depending on payback period).</p>
SDG Two: Zero Hunger <ul style="list-style-type: none"> · Hunger · Food access · Food security · Food affordability · Agricultural Productivity 	<p>The NAMA will also contribute to the development of the economy as it enables the creation of new jobs and the improvement of the businesses of several of the stakeholders involved (taxi drivers, car dealers, scrappage facilities, etc.).</p>	<p>No further recommendations.</p>

<p>Highly Relevant SDG</p> <p>SDG Three: Good Health and Well-being</p> <ul style="list-style-type: none"> · Environment · Health · Pollution 	<ul style="list-style-type: none"> - Limited information is available on the health impact of the road transport sector in Lebanon, although the two studies that exist confirm the health impact of non-GHG pollution from the sector; - The high dependence on cars in combination with the fact that the majority of cars operating on the roads are old, is a major concern in terms of car accidents and human health. An increase in the proportion of new cars in the car fleet, with higher security standards (e.g. air bags), would reduce the severity of the impact of car accidents; - Opportunity to improve health and safety in the country and reduce hospital bills; - The study showed that about 93% of CO emissions, 67% of non-methane volatile organic compound (NMVOC) emissions, and 52% of NO_x emissions originate from the on-road transport sector; - The transport sector is a major contributor to GHG emissions in Lebanon, contributing about 21% of national GHG emissions (MoE, GEF, & UNDP, 2011). Carbon dioxide (CO₂) is the main GHG emitted in Lebanon, representing about 84% of total emissions, with the transport sector contributing to 25% of total CO₂ emissions. 	<p>No additional recommendations beyond SDG 3 in Table 2.</p>
<p>SDG Four: Quality Education</p> <ul style="list-style-type: none"> · Education · Awareness raising · Youth 	<ul style="list-style-type: none"> - Education and capacity building play a prominent role in the NAMA's proposed scrappage program; - Educational and awareness-building resources for car dealers will be developed and car dealers will be equipped to support the program; - Capacity building consists of developing educational resources for car dealers so that they are fully informed about all the aspects of the program. This will allow them to convey the right information to program participants looking for replacement of cars (e.g. the type of cars that are eligible for replacement based on the emission rate, age or efficiency of the car) and to coordinate with the implementing entity on different parts of the scrappage process (i.e. de-registration and registration on behalf of the program applicant if desired, conveying information about the replacement car emission limit to the TTVMA, etc.); - Stakeholder Education, Marketing and Awareness Building; 	<p>Awareness campaigns to support mitigation actions, especially in schools, would spread skills and knowledge about sustainable development.</p>

	<ul style="list-style-type: none"> - Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning. 	
SDG Five: Gender Equality <ul style="list-style-type: none"> · Women · Gender · Vulnerable groups · Rural communities 	Gender is not addressed in the NAMA.	No further recommendations.
SDG Six: Clean Water Sanitation <ul style="list-style-type: none"> · Clean water · Drinking water · Wastewater · Water quality 	Water or sanitation are not addressed in the NAMA.	No further recommendations.
Highly Relevant SDG SDG Seven: Affordable & Clean Energy <ul style="list-style-type: none"> · Energy efficiency · Electricity transmission · Electricity distribution · Reliable energy · Affordable energy · GHG reduction · Mitigation · Energy security 	<ul style="list-style-type: none"> - Promote and increase awareness of energy efficiency in the transport sector; - Promote and increase the awareness of energy efficiency in the transport sector and improve the information base and knowledge about fuel consumption and emissions levels in road transport. 	No additional recommendations beyond SDG 7 in Table 2.
Highly Relevant SDG SDG Eight: Decent Work and Economic Growth <ul style="list-style-type: none"> · Jobs · Income · Employment 	<ul style="list-style-type: none"> - The NAMA will also contribute to the development of the economy as it enables the creation of new jobs and the improvement of the businesses of several of the stakeholders involved (taxi drivers, car dealers, scrappage facilities, etc.); - Furthermore, revenue-generating mechanisms (such as an additional fuel tax) will also be launched in 2019, providing an income stream to support disbursements from the national Government budget and public sector grants to ensure the sustainable management of the NAMA intervention in the road transport sector; - Taxi drivers will be able to generate additional income by putting advertisements about the scrappage program on their car; 	In addition to SDG 8 in Table 2: <ul style="list-style-type: none"> - Energy efficiency increases economic productivity, contributes to technological and infrastructure upgrading, and to economic diversification and innovation; - Capacity building associated with creation of new financing programmes could increase domestic banks ability to offer banking and financial services; - Increases resource efficiency by reducing energy demand and contributes to decoupling growth from environmental degradation.

	<ul style="list-style-type: none"> - The financial incentives will include replacement fees, soft loans, tax exemptions and income from advertisements (only for red plate vehicles); - This effect is intentionally designed into this NAMA to create an attractive business opportunity for taxi drivers and minimize the risks incurred in changing vehicles as they represent taxi drivers' source of income. 	
Highly Relevant SDG SDG 9: Industry, Innovation, Infrastructure <ul style="list-style-type: none"> · Industry · Innovation · Infrastructure · Research and development 	The NAMA does not address industry with the exception of scrappage facilities.	No additional recommendations beyond SDG 9 in Table 2.
SDG 10: Reduced Inequalities <ul style="list-style-type: none"> · Equity · Inclusion 	SWOT analysis: Issue of social equity; households without a car (representing 25% of the population) will not benefit from the NAMA.	No further recommendations.
Primary SDG SDG 11: Sustainable Cities and Communities <ul style="list-style-type: none"> · Cities · Communities · Urban · Urbanization · Fuel efficient vehicles · Modal share shift · Public Transport · Accessibility · Mobility 	<p>The NAMA's primary focus is on Fuel Efficient Vehicles thus transport which falls under SDG11. The NAMA addresses cities in terms of high levels of emissions.</p> <ul style="list-style-type: none"> - By replacing of old cars by newer cars (FEVs), reduce the frequency of car breakdowns leading to accidents, traffic jams and congestion; - Furthermore, modelling results showed that air emissions from traffic are mainly concentrated around main road axes and large cities; - It was also expected that other main cities such as Zahle, Baalbeck, Tripoli and Saida will also witness a significant degradation of their air quality and the health of their population, while rural areas will be affected but to a lesser extent; - Provide capacity building and awareness creation to key local stakeholders on fuel efficiency in private road transport and climate change, and hence reduce air pollution and improve air quality associated with road transport in cities and urban areas in Lebanon. 	<p>In addition to SDG 11 in Table 1:</p> <p>Improves ecosystem and habitat conservation due to reduced pollution.</p>
Highly Relevant SDG SDG 12: Sustainable Consumption	<ul style="list-style-type: none"> - Improve the information base and knowledge about fuel consumption and the emissions level in road transport and hence generate more transparency, which in turn would lead to improved capacity to move 	<p>In addition to SDG 12 in Table 2:</p> <ul style="list-style-type: none"> - Awareness raising approaches to encourage mitigation actions and

and Production <ul style="list-style-type: none"> · Consumption · Production · Output · Productivity · Efficiency 	<p>towards more sustainable consumption patterns of fuel used in road transport;</p> <ul style="list-style-type: none"> - Improve the regulatory framework and establish incentives that support more sustainable consumption of natural resources (including fossil fuels) in the road transport sector in Lebanon. 	<p>sustainability would spread information across society;</p> <ul style="list-style-type: none"> - Improved regulatory framework and established incentives that support more sustainable consumption of natural resources (including fossil fuels) in the road transport sector in Lebanon; - Contributes to reduced outdoor air pollution (reduced fuel use).
SDG 13: Climate Change <ul style="list-style-type: none"> · Climate Change · GHG emissions · Resilience · Mitigation · Adaptation · Nationally Determined Contribution (NDC) 	<p>The road transport sector (including the vast majority of daily commuters) is heavily reliant on private cars. This in turn produces road congestion and social and environmental impacts (including air pollution, and time spent in traffic jams).</p>	<ul style="list-style-type: none"> - Reference role of Transport NAMA in the NDC; - Align policy targets with the NDC.
SDG 14: Life Below Water <ul style="list-style-type: none"> · Water · Sea · Lakes · Streams · Rivers · Mediterranean · Marine life · Run-off · Water pollution · Coastal 	<p>Life below water is not addressed in the NAMA.</p>	<p>No further recommendations.</p>
SDG 15: Life on Land <ul style="list-style-type: none"> · Ecosystems · Biodiversity · Forests · Reforestation/ afforestation · Seed bank · Genetic 	<p>Life on land is not addressed in the NAMA.</p>	<ul style="list-style-type: none"> - Improves conservation of water ecosystems and improves ecosystem and habitat conservation due to reduced pollution; - Reduces degradation of natural habitats through reduced pollution.

<p>SDG 16: Peace, Justice & Strong institutions</p> <ul style="list-style-type: none"> · Capacity · Legislation · Regulation · Legal framework · Policy · Participatory · Inclusive (decision-making) 	<ul style="list-style-type: none"> - The NAMA will incorporate significant capacity building efforts to institute changes in policy and regulation, practices in the road transport sector and individual behavior (awareness creation); - Transparency: All processes should be documented; data flows should be verifiable; - Sound institutional framework: Roles and responsibilities should be defined and a sound institutional structure applied; - For a NAMA to be “nationally appropriate” and appropriate for the sector, it is essential that the NAMA is aligned with existing and planned national policies, plans and strategies and with regulations that have an impact on the road transport sector and the transport sector as a whole; - In Phase 1 capacity building focuses on providing strategic, policy, institutional and regulatory support to produce improved regulations in the road transport sector, establish the institutional framework for the NAMA, assess and define an appropriate incentive scheme for car owners and car dealers to participate in the car replacement program and to provide awareness creation activities to key stakeholders involved in the road transport sector; - Capacity building consists of providing policy, institutional and regulatory support to enable regulations to be improved in the transport sector related to emission limits on newly imported cars, set the eligibility criteria for program participation, establish and operate the NAMA coordinating entity and the implementing entity, provide training to key stakeholders involved in the NAMA (CE, IE and NFF staff; operators of car scrappage facilities; car dealers), establish initial MRV systems, and raise public awareness about the program and its benefits; - Capacity building activities: Mechanisms for Establishing & Implementing Policies, Laws, Regulations and MRV; - The successful completion of certain activities like capacity building, the establishment of new entities like the CE and IE, or the implementation of new laws and regulations will provide indications of the progress of the NAMA; - Enforcement of traffic laws and regulations. 	<ul style="list-style-type: none"> - Development of institutions and governance processes for climate change should support development of general governance capacities; - Improved regulatory framework and established incentives that support more sustainable consumption of natural resources (including fossil fuels) in the road transport sector in Lebanon can further develop effective institutions.
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<p>Highly Relevant SDG</p> <p>SDG 17 Partnerships for the Goals</p> <ul style="list-style-type: none"> · Resource · Financing mechanism · Public-Private Partnerships 	<ul style="list-style-type: none"> - Public private partnerships (PPPs) are still limited in Lebanon and specifically in the road transport sector. In the absence of the NAMA, the car fleet is expected to continue to be ageing and polluting since the market segment targeted by the NAMA is of relatively lower socio-economic status than present owners of new cars and may not be able to afford to buy newer cars if the incentives stipulated by the NAMA are not in place. It is likely that specific functions in the NAMA will be operated based on PPP models; - The private sector plays a leading role in the structure and approach of the NAMA. Besides the private cars that are targeted for the scrappage program (in addition to the commercial taxis), other key players in the NAMA set-up are from the private sector. These include car dealers, privately or partially privately owned scrappage facilities, commercial banks and non-banking financial institutions for providing loans or loan guarantees, and car insurance companies; - Promote the introduction and dissemination of FEVs in Lebanon on favorable terms (through establishing an incentive scheme based on domestic resources supplemented by international financial sources). 	<p>No additional recommendations beyond SDG 17 in Table 2.</p>
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Annex I: Lead Institution per SDG in Lebanon

Theme: People		Leading Institution: Ministry of Education and Higher Education			
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: Ministry of Environment			
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: Ministry of Economy and Trade			
8 DECENT WORK AND ECONOMIC GROWTH	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	11 SUSTAINABLE CITIES AND COMMUNITIES			
					

Theme: Peace		Leading Institution: Office of the Minister of State for Administrative Reform			
16 PEACE, JUSTICE AND STRONG INSTITUTIONS					
					

Theme: Data and Statistics		Leading Institution: Central Administration of Statistics			
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.

The SDG global framework provides a valuable starting point to integrate the two agenda's indicator framework. However, a barrier to solely utilizing the SDG global framework for both agendas, is that it is limited in its ability to measure NDC implementation. Many of the SDG indicators are too unspecific or insufficient for tracking NDC progress. For example, greenhouse gas emissions are not included as an SDG indicator in the global framework (Bouyé, B., Harmeling, S. & Schulz, N-S., 2018). Therefore, 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 climate policies were identified to further provide a basis for developing an integrated indicator framework.

The Transport NAMA identifies MRV Parameters for reporting on sustainable development aligning with specific SDGs. These parameters are a good starting point at considering the integration of transport indicators with the SDG 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. Currently, indicators are identified within the Transport NAMA 'sustainable development parameters' are aligned to various SDG's (Annex II, Table 1), for example, emissions limits are assigned to SDG 12 sustainable consumption and production. This is valuable in considering the impact of transport measures on the SDGs at the policy level but for a 'bigger picture' nationalized SDG/NDC indicator database it would likely be more practical to group and prioritize the Transport NAMA indicators together as transport indicators under SDG 11 (see Annex II, Table 2). Further, the indicators within the Transport NAMA might be too granular in scope to be appropriate for a nationalized indicator framework, so therefore the NAMA indicators would likely have to be assessed for its relevance in overall impact of transport.

Annex II, Table 1: Transport NAMA MRV Parameter Reporting on Sustainable Development

Goal Aim	Goal Target	Contribution of the Transport NAMA	Name of parameter
3. Good Health and Well-Being	<p>3.6: By 2020, halve the number of global deaths and injuries from road traffic accidents</p> <p>3.9: Substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination</p>	<p>Reduction of hazardous pollution of emissions resulting from private road transport</p> <p>by replacement old cars by newer cars; increase the safety standards of cars with the potential to reduce the severity and number of injuries and deaths in road traffic</p>	<p>-Number of FEVs joining the scrappage program of plate color p in year y</p> <p>-Emission factor of newly registered vehicles of plate color p in year y</p>
7. Ensure Access to Affordable, Reliable, Sustainable and Modern Energy for All	7.3 By 2030, double the global rate of improvement in energy efficiency	Promotion of fuel-efficient cars	<p>-Number of FEVs joining the scrappage program of plate color p in year y</p> <p>-Value of replacement fees disbursed as part of the scrappage program</p>
8.Promote Inclusive and Sustainable Economic Growth, Employment and Decent Work for All	<p>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.</p> <p>8.10: Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all</p>	<p>(1) Access to financial services for taxi drivers to replace their vehicles.</p> <p>(2) Increase of business at designated scrappage sites.</p> <p>(3) Car dealers and car insurance companies profit from additional car sales</p> <p>(4) Job creation within Coordination and IE and potentially within the private sector participants of the NAMA</p>	<p>-Number of FEVs joining the scrappage program of plate color p in year y, focusing on the RP vehicles</p> <p>-Value of soft loans issued for the purchase of FEVs as part of the scrappage program</p>
11. Make Cities Inclusive, Safe, Resilient and Sustainable	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	<p>1) Improvement of air quality due to more environmental friendly cars</p> <p>(2) Reduction of vehicle breakdown due to renewed car fleet</p>	<p>-Money spent on training on and marketing of the scrappage program</p> <p>-Environmental standard for all newly imported cars is legally implemented</p>
12. Ensure Sustainable Consumption and	12.2 By 2030, achieve the sustainable management and efficient use of natural	(1) Increase of fuel efficiency due to the promotion of FEVs	-Emissions limit for newly imported cars legally enacted

Production Patterns	<p>resources</p> <p>12.11 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</p> <p>12.8: Ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature</p> <p>12.a: Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production</p>	(2) Enactment of a Ministerial Decision on additional fuel tax as an income source for the NAMA	-Environmental standard for all newly imported cars is legally implemented
13. Take Urgent Action to Combat Climate Change and its Impacts	<p>13.2 Integrate climate change measures into national policies, strategies and planning.</p> <p>13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning</p>	<p>(1) Enactment of emissions limits and/or environmental standards for private passenger vehicles</p> <p>(2) Raising awareness on fuel efficiency of vehicles</p>	<p>-Amount of additional fuel tax collected</p> <p>-Amount of replacement fees disbursed as part of the scrappage program</p> <p>-Monetary values of financial incentives disbursed on a national level</p> <p>-Number of FEVs joining the scrappage program of plate color p in year y</p>
17. Strengthen and Enhance the Means of Implementation and	17.1 Strengthen domestic resource mobilization, including through international support to developing countries, to improve domestic	<p>(1) Revenue collection through fuel tax</p> <p>(2) Mobilization of additional financial sources through the NAMA</p>	-Number of FEVs joining the scrappage

Global Partnership for Sustainable Development	<p>capacity for tax and other revenue collection</p> <p>17.3 Mobilize additional financial resources for developing countries from multiple sources</p> <p>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</p> <p>17.7: Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favorable terms, including on concessional and preferential terms, as mutually agreed</p> <p>17.17: Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships</p>		
Source: Nationally Appropriate Mitigation Action (NAMA) in Lebanon's Private Road Transport Sector (FEVs) (2017)			

Annex II, Table 2: Potential Additional Indicators for an Integrated SDG & NDC Indicator framework		
SDG	Indicator	Climate Policy
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	11.2.1 Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities	Transport NAMA Transport Strategy



	<ul style="list-style-type: none"> - Other potential indicators: - Percentage of land territory covered by public transport - Change in mass transit ridership - Transportation to income ratio - Change in GHG emissions from transport sector - Share of emissions by vehicle type - Tonnes of CO₂ eq emitted by transportation sector - Median age of vehicles in Lebanon - % of vehicles with engines exceeding 2 liters - Share of public transport (passenger-kilometer activity) - Share of fuel-efficient vehicles - Share of large low efficiency vehicles - Share of hybrid vehicles - Total fuel subsidies (USD) per year <p>NAMA Parameters:</p> <ul style="list-style-type: none"> - Money spent on training on and marketing of the scrappage program - Emission limit for newly imported cars legally enacted Y/N - Environmental standard for all newly imported cars is legally implemented - Y/N - Amount of additional fuel tax collected - Number of FEV;s joining the scrappage program of plate color p in year y, focusing on RP vehicles - Monetary values of financial incentives disbursed on a national level - Amount of replacement fees disbursed as part of the scrappage programs 	
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Annex III: SDG List

PEOPLE	 <p>Goal 1. End poverty in all its forms everywhere</p>	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	 <p>Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture</p>	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	<div> <div>3</div> <div>GOOD HEALTH AND WELL-BEING</div> <div>  </div> </div> <div> Goal 3. Ensure healthy lives and promote well-being for all at all ages </div>	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	<div> <div>4</div> <div>QUALITY EDUCATION</div> <div>  </div> </div> <div> Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all </div>	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	<p>5 GENDER EQUALITY</p>  <p>Goal 5. Achieve gender equality and empower all women and girls</p>	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	<p>10 REDUCED INEQUALITIES</p>  <p>Goal 10. Reduce inequality within and among countries</p>	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	<p>6 CLEAN WATER AND SANITATION</p>  <p>Goal 6. Ensure availability and sustainable management of water and sanitation for all</p>	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	<p>7 AFFORDABLE AND CLEAN ENERGY</p>  <p>Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all</p>	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	<div>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</div>  <div>Goal 12. Ensure sustainable consumption and production patterns</div>	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	<div>13 CLIMATE ACTION</div>  <div>Goal 13. Take urgent action to combat climate change and its impacts</div>	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	 <p>Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development</p>	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	 <p>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</p>	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	<div> <div>11 SUSTAINABLE CITIES AND COMMUNITIES</div>  <div> Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable </div> </div>	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	<div> <div>16 PEACE, JUSTICE AND STRONG INSTITUTIONS</div>  <div> 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 </div> </div>	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

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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