

Climate Technology Centre & Network

State of Palestine - Environment Quality Authority

Technology Road Map for the Implementation of Climate Action Plans in Palestine

Detailed Work Plan

Version 0.2

November 30, 2018

Deloitte Tohmatsu Financial Advisory LLC

Eco Consult

Contents

- 1. Background..... 1
- 2. Implementation Approach..... 2
- 3. Work Schedule..... 14
 - 3.1 Implementation Timelines..... 14
 - 3.2 Reporting Timelines..... 16
- 4. Missions to Palestine 18
- List of attached annexes: 22

1. Background

The State of Palestine is vulnerable to climate change. On the mitigation side, it is dependent on energy import from power stations in Israel for the West Bank, as well as other imports of fossil fuels. In the Gaza Strip, 30% of the electricity is supplied by the Gaza Power Plant (GPP) and the use of renewable energy to meet the demand is limited due to high investment costs. The State of Palestine has only small-scale renewable energy resources developed. At the same time, access to water and its impact on food security is a key item on its adaptation agenda taking into consideration that most of the water resources in Gaza is highly polluted and far below WHO standards. .

The State of Palestine has developed its Initial National Communication Report (INRC), National Adaptation Plan (NAP) and has submitted its Nationally Determined Contribution (NDC) to the UNFCCC. These documents clearly highlight the challenges in mitigation and adaptation met by the State of Palestine. For example, the INRC emphasizes that while there is a well-established market for solar thermal technologies and that energy efficiency technologies have been introduced, other climate-related technologies which could be used for mitigation and adaptation options have limited existence in the market.

Within this context, the State of Palestine has requested CTCN's assistance to formulate a gender responsive Technology Roadmap, which will be used for the implementation of climate change action plans, defined as INCR, NAP and NDC.

The Technology Roadmap is expected to identify relevant technologies to achieve the objectives determined in climate change action plans, and technical, financial, regulatory and other barriers to their implementation, replicability or scalability. The roadmap will then propose solutions to remove these through policy and other de-risking instruments, as well as capacity building and creating an enabling environment. It will be particularly important to identify practical and feasible funding modalities for these actions, including through the GCF and other sources.

Finally, the ownership and the implementation of the roadmap will be improved through the development of a capacity development programme, which will aim at strengthening the policy, regulatory, institutional, financial, business and social capacity of key partners.

2. Implementation Approach

All the tasks for the completion of the Assignment are planned to be implemented under 3 outputs as shown in the figure below.

Output 1 – Climate mitigation and adaptation climate technologies and inclusive businesses for transfer to Palestine identified, prioritized and approved	Deliverable: Identification and Prioritization Report	Target deadline: 30 April 2019
1.1 - Assess key success factors and best practices and suitability in mitigation and adaptation technologies and businesses 1.2 - Evaluate the gaps, needs, challenges and opportunities to scale up the proven and viable adaptation and mitigation solutions and inclusive businesses 1.3 – Develop methods to diagnose and design range of climate technology transfer projects, accessibility and acceptability from the prioritized technology portfolio 1.4 - Identification and assessment of key barriers for each prioritized technology 1.5 - Assess the enabling environment for each action 1.6 - Understand the mix of financial and non - financial measures required to successfully implement each action 1.7 - Develop toolkits for making informed decisions on the choice of the technology 1.8 – Gender mainstreaming 1.9 - Ranking of mitigation and adaptation technologies and develop a prioritized pipeline of fundable climate adaptation and mitigation solutions and businesses		
Output 2 – Roadmap for the implementation of the gender responsive climate mitigation and adaptation technologies transfer developed and approved	Deliverable: Approved Roadmap for the Implementation of the Technology Roadmap	Target deadline: 30 June 2019
2.1 - Develop a comprehensive roadmap for removing the barriers and risks for the implementation of the prioritized technology 2.2 - Develop a management plan for the monitoring and evaluation of prioritized mitigation and adaptation technologies and business transfers		
Output 3 – Gender responsive Capacity development programme to strengthen the capacities of the key stakeholders developed and approved.	Deliverable: Gender Responsive Capacity Development Programme	Target deadline: 30 November 2019
3.1 - Develop a long-term gender responsive Capacity Development Programme to strengthen the absorptive and implementation capacities of the public, private and CSO partners 3.2 - Develop the gender sensitive knowledge and communication products (guidelines, manuals, handbooks, toolkits) to train public, private and CSO partners 3.3 - Develop participatory, interactive and gender responsive trainings for project proponents, NDA/FP and trainers from key institutions 3.4 - Organize capacity - building for the institutions that will deliver the roadmap, to administer and successfully implement it 3.5 - Develop gender sensitive communications and guidance that may be needed to support the implementation of the roadmap		

Output 1: Climate mitigation and adaptation technologies and inclusive businesses for transfer to Palestine identified and prioritized

The identification of climate mitigation and adaptation technologies will require the execution of the steps below.

Step 1.1 Assess key success factors and best practices and suitability in national, regional and international mitigation and adaptation technologies and businesses that could be adapted and adopted in Palestine, (including currently used technologies in the country)

In order to identify relevant technologies for the Palestinian context, it will be important to first analyze climate change action documents developed by the State of Palestine, and identify priority sectors

where climate mitigation and adaptation technologies can be used. A first overview of the mitigation and adaptation priorities, as defined by the State of Palestine in their INRC, NAP and NDC, is shown in the table below.

Table 1: Objectives, vulnerabilities and priorities of the State of Palestine in climate change mitigation and adaption

Sector	Objectives and vulnerabilities	Priorities and means of intervention
Mitigation	<p>Objectives:</p> <p>24.4% GHG emissions reduction by 2040 relative to BAU (independence scenario)</p> <p>12.8% GHG emissions reduction by 2040 relative to BAU (Status quo scenario)</p>	<ul style="list-style-type: none"> ➤ 20 to 33% of electricity generation generated through solar photovoltaic ➤ Net-metering photovoltaic systems ➤ Small scale wastewater treatment plant powered by solar energy ➤ Energy efficiency standards for buildings, energy efficient lighting ➤ Use of waste for 20% for cement production ➤ Use of waste for electricity generation ➤ Reduction of methane from landfill ➤ Vehicles (hybrid electric, natural gas) ➤ Modal shift programmes ➤ Afforestation ➤ Greening and rangeland development
Adaptation	<p>Vulnerabilities identified in the following sectors (non-exhaustive):</p> <ul style="list-style-type: none"> ➤ Agriculture (Watermelon, cut-flower, greenhouses) ➤ Coastal and marine (Gaza Strip only) (Coastal agriculture) ➤ Energy (energy prices, cost of domestic feedstocks) ➤ Food (food processing, storage, waste) ➤ Gender (maternal mortality, employment, food security) ➤ Health (health costs, increase of diseases) ➤ Industry (production, waste management) ➤ Terrestrial ecosystems (biodiversity, habitat) ➤ Tourism (West Bank only) ➤ Urban and infrastructure (Urban drainage, air pollution) ➤ Waste and wastewater ➤ Water (water supply and quality) 	<ul style="list-style-type: none"> ➤ 78 proposed adaptation intervention in the NAP to be taken into consideration, among which: ➤ Increase water availability (water tanks, dams) ➤ Minimize water losses in water systems ➤ Improved water efficiency ➤ Rain-water harvesting ➤ Improved irrigation management and improved irrigation systems ➤ Enhance food security ➤ Minimize soil erosion ➤ Climate smart agriculture ➤ Introduction of new saline-tolerant crops ➤ Increase the availability of animal feed ➤ Agricultural disaster risk reduction and management ➤ .

This analysis will be supplemented and refined during this first step, based on an extensive desktop review and, if required, interviews with local stakeholders. The consulting team will analyze both climate and development priorities of the State of Palestine. For this, the consulting team will review at least the following documents:

Table 2: Analysis of Palestine’s climate and development objectives

Type of document	Document title
Policies and strategies related to climate change	<ul style="list-style-type: none"> ➤ Nationally Determined Contribution (NDC) ➤ National Adaptation Plan (NAP) ➤ Initial National Communication Report (INRC)
Policies and strategies related to	<ul style="list-style-type: none"> ➤ National Policy Agenda (2017 – 2022) ➤ National Agricultural Sector Strategy (2017 – 2022)

development objectives	<ul style="list-style-type: none"> ➤ Environment Sectoral Strategy 2014-2016 ➤ Water Sector Reform Plan (2016-2018) ➤ Water Strategy (2016-2018) ➤ Palestinian Water Authority Strategic Plan (2016-2018) ➤ Energy Sector Strategy (2011-2013) ➤ National Strategy for Solid Waste Management in the Palestinian Territory (2010-2014) ➤ National Policy and Legislation for Promoting the Conservation of Agro-biodiversity in the Palestinian Authority 2005 ➤ RE and EE related strategies.
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Based on this analysis, the consulting team will identify potential national, regional and international mitigation and adaptation technologies and businesses that could contribute to achieving these priorities. Information sources will include the CDM and JCM project databases, as well as technology databases published by the CTCN and NEDO, among others.

Their success factors and best practices will be analyzed and put into the Palestinian context. Additional technologies will be identified and reviewed as part of this process. The analysis of the enabling factors will at least include financing, capacity, regulatory, social and gender considerations.

The consulting team will prepare case studies based on the technologies identified. These will include the enabling factors identified.

Step 1.2 Evaluate the gaps, needs, challenges and opportunities to scale up the proven and viable adaptation and mitigation solutions and inclusive businesses for various sectors for long term and sustainable impact beyond the one-off project

After identifying potential technologies and inclusive businesses, and their enabling factors in step 1.1, the consulting team will analyze gaps, needs, challenges and opportunities to scale them up. Those may include financing, capacity, regulatory, social and gender gaps, among others. Identifying constraints and opportunities in existing technologies will inform the consulting team and stakeholders in Palestine when prioritizing the technologies and developing the roadmap. It will also be important to consider whether these technologies can be applied in the **status quo** (under Israeli occupation) or only when the full independence is achieved and no barriers related to Israeli occupation are foreseen

The gaps identified will be included in a Gap and opportunity analysis report, which will be made available by 31 January 2019.

Step 1.3 Develop methods to diagnose and design range of climate technology transfer projects, accessibility and acceptability from the prioritized technology portfolio

Under this step, the consulting team will develop a methodology to screen mitigation and adaptation technologies, as well as inclusive business. This methodology will be used to understand which projects are accessible and acceptable by relevant stakeholders in the State of Palestine. An indicative methodology and indicators are presented below:

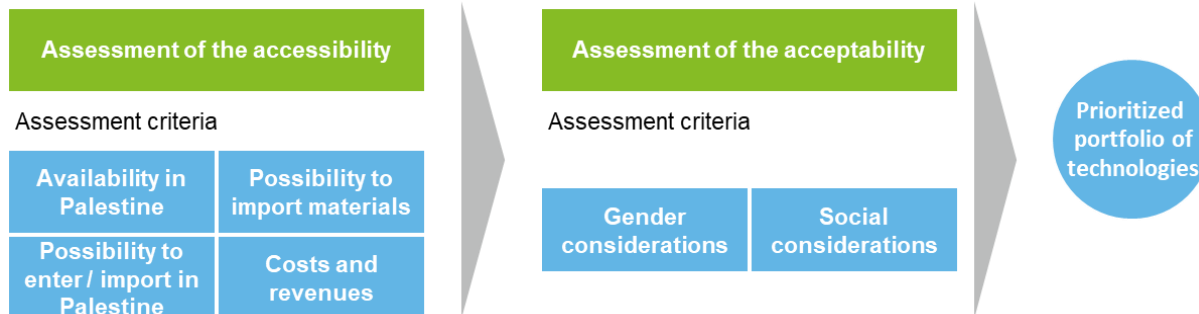


Figure 2: Illustrative assessment process for the accessibility and acceptability of technologies

The assessments of the costs for the related technologies will be crucial in the assessment. It will be equally important to assess the potential income associated with the technologies. Those aspects will be key in determining the sustainability of potential technologies.

It will be important to assess those both for the West Bank and for Gaza Strip, as some external factors may change between one and another. As much as possible, the consulting team will also take into account the administrative divisions in the West Bank. Based on this, the consulting team will screen the technologies identified and prioritize accessible and acceptable technologies for a deeper analysis.

The project screening and prioritization methodology will be made available by 28 February 2019.

Step 1.4 Identification and assessment of key barriers for each prioritized technology

The consulting team will then identify key barriers for each prioritized strategy in step 1.3. The identification and analysis of key barriers, such as market barriers, economic and financial barriers, human skills, technical barriers, legal and regulatory barriers, among others, will inform the consulting team on the possibility to introduce these in the State of Palestine.

In assessing these, the consulting team will adapt and apply UNDP's approach to derisking Renewable Energy Investment (DREI) , which uses the following levels of risks:

- Private risk: risks directly related to a project, such as risks arising from the unavailability of the material required, limitations in infrastructure, credit quality (counterparty risk), and others;
- Public risks: risks related to policy and regulatory frameworks, such as risks arising from limitations and uncertainties in the market, and/or suboptimal regulations to address these limitations, permit risks and others;
- Financial risks: risks related to the cost of capital, such as risks arising from scarcity of investor capital (debt and equity) in Palestine for a particular sector, from the country's macro-economic performance and others.

Each level of risks implies different measures for derisking. Distinguishing between these will enable the consulting team to identify relevant derisking instruments for each technology in step 1.6.

They will be assessed against a scoring scale, which will allow to identify the impact of risk categories on the difficulty to introduce them in the West Bank or in Gaza Strip, and will reflect the actions required to introduce them.

Key barriers will be included in a Key barrier identification and assessment report, which will be made available by 28 February 2019.

Step 1.5 Assess the enabling environment for each action

Under this step, the consulting team will assess policies and the regulatory framework related to each prioritized technology or inclusive business. The review will include some of the following documents:

Table 3: Laws, regulations and policies relevant to climate change and relevant sectors

Type of document	Document title
Laws and regulations	➤ Environmental Law No 7
	➤ Legislative decree no 14/2015 on renewable energy and energy efficiency
	➤ Law no 12/1995 on the establishment of the Palestinian Energy Authority
	➤ Legislative Decree no 10/2011 on the Law of Industry
	➤ Decree No.14 for the year 2014 relating to the water law
	➤ The law on agriculture No 2 of 2003
	➤ Palestinian Local Government Law of 1997 No (1)
Policies and strategies related to development objectives	➤ National Policy Agenda (2017 – 2022)
	➤ National Agricultural Sector Strategy (2017 – 2022)
	➤ Environment Sectoral Strategy 2014-2016
	➤ Water Sector Reform Plan (2016-2018)
	➤ Water Strategy (2016-2018)
	➤ Palestinian Water Authority Strategic Plan (2016-2018)
	➤ Energy Sector Strategy (2011-2013)
	➤ National Strategy for Solid Waste Management in the Palestinian Territory (2010-2014)
	➤ National Policy and Legislation for Promoting the Conservation of Agro-biodiversity in the Palestinian Authority 2005

Based on this analysis, the consulting team will prepare a policy assessment report, which will be made available by 28 February 2019.

Step 1.6 Understand the mix of financial and non - financial measures required to successfully implement each action

Based on the results of the analysis conducted in previous steps, this step will identify institutional barriers and support schemes will allow the consulting team to understand which actions are required to introduce the technologies in the State of Palestine. This will be done through an extensive policy and gap analysis.

As explained in step 1.4, the consulting team will use, adapt and apply UNDP’s framework to derisking renewable energy investments. This will be adapted to other technologies. The consulting team will be exploring a mix of derisking arrangements related to private, public and financial derisking.

Table 3: Illustrative derisking options

Type of document	Document title
Private derisking	➤ Capacity building
	➤ Awareness programmes
Public derisking	➤ Policy measures
	➤ Regulatory instruments

Financial derisking	➤ Grid codes, building codes, etc.
	➤ Feed in tariffs
	➤ Tax breaks
	➤ Payments against results (Result based finance)
	➤ Carbon derisking

Based on the analysis conducted under this step, the consulting team will prepare a Financial and non-financial measures identification report, which will be made available by 28 February 2019.

Step 1.7 Develop toolkits for making informed decisions on the choice of the technology

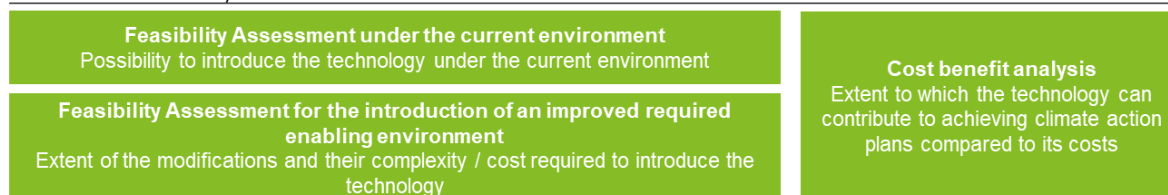
Under this step, the consulting team will develop a toolkit to support the State of Palestine in identifying prioritized technologies for the roadmap. Each technology will be assessed according to a set of criteria, which will include market barriers (availability and cost of the technology), technical barriers, capacity barriers, availability of financial resources, legal barriers, social acceptability and the contribution of the technology to achieving climate action plans. The technologies will be at least assessed according to their feasibility, as defined by the possibility to introduce the technology economically, socially and technically, to the availability of internal or external resources, and to a cost benefit analysis, which will determine the contribution of the technology to achieving climate goals compared to its goals.

Based on the previous steps, the consulting team will also support the State of Palestine in identifying which actions are required to introduce prioritized technologies which cannot be introduced under the current environment. Those may include legal modifications, capacity building and other actions.

Assessment criteria



Assessments and analysis



Scoring

	Sector / Sub-Sector	Cost / Benefit	Feasibility	Availability of resources	Total score
Technology 1					
Technology ...					
Technology ...					

Figure 3: Illustrative technology assessment process

At this stage, the consulting team proposes to adopt a scoring methodology to support the prioritization of a pipeline of fundable climate adaptation and mitigation technologies and businesses. The methodology will also enable to assess the private sector interest in the proposed technologies. This will support the selection of these in step 1.9.

The Technology prioritization toolkit will be made available by 31 March 2019.

Step 1.8 Gender mainstreaming

Under this step, the consulting team will use the CTCN Gender Mainstreaming Tool for Response Plan Development to perform a gender analysis. This analysis will highlight the differences between women, men, girls and boys, disabled in terms of resources, opportunities, constraints and power. For this, the consulting team will use recent gender profiles, such as the one developed by the Japan International Cooperation Agency in 2016. As part of this analysis, and as much as possible, profiling related to disabilities will also be used and taken into account.

Implementing the gender analysis at such an early stage of developing the roadmap will enable the consulting team to take into account gender issues in the prioritization of the technologies. Specially, the consulting team will take into account vulnerabilities to climate change in terms of gender, the burden some technologies may bring on women, and the lack of access to some technologies of women. These aspects will be crucial when prioritizing technologies.

The gender mainstreaming report will be made available by 31 March 2019.

Step 1.9 Ranking of mitigation and adaptation technologies and develop a prioritized pipeline of fundable climate adaptation and mitigation solutions and businesses aligned with NDC and GCF Strategic Impact Areas

Based on the methodology adopted in step 1.7 and on the gender analysis conducted in step 1.8, the consulting team will support the State of Palestine in ranking mitigation and adaptation technologies, and in developing a pipeline of fundable climate adaptation and mitigation technologies and businesses.

Under this step, the consulting team will organize a workshop with Palestinian stakeholders to identify the most relevant technologies in order to achieve its climate change action objectives. Technologies and businesses will be ranked according to how complex they are to introduce and to their level of cost benefit. The cost benefit analysis will enable the consulting team and Palestinian stakeholders to understand clearly how technologies can contribute to achieving their climate change targets and at what cost.

This analysis will also allow to identify which technologies can be introduced and implemented with no or little support, and which technologies will require significant external support. In order for all stakeholders to easily understand the positioning of each technology, the consulting team will use its analytics capacities to develop easy to understand models and visuals.

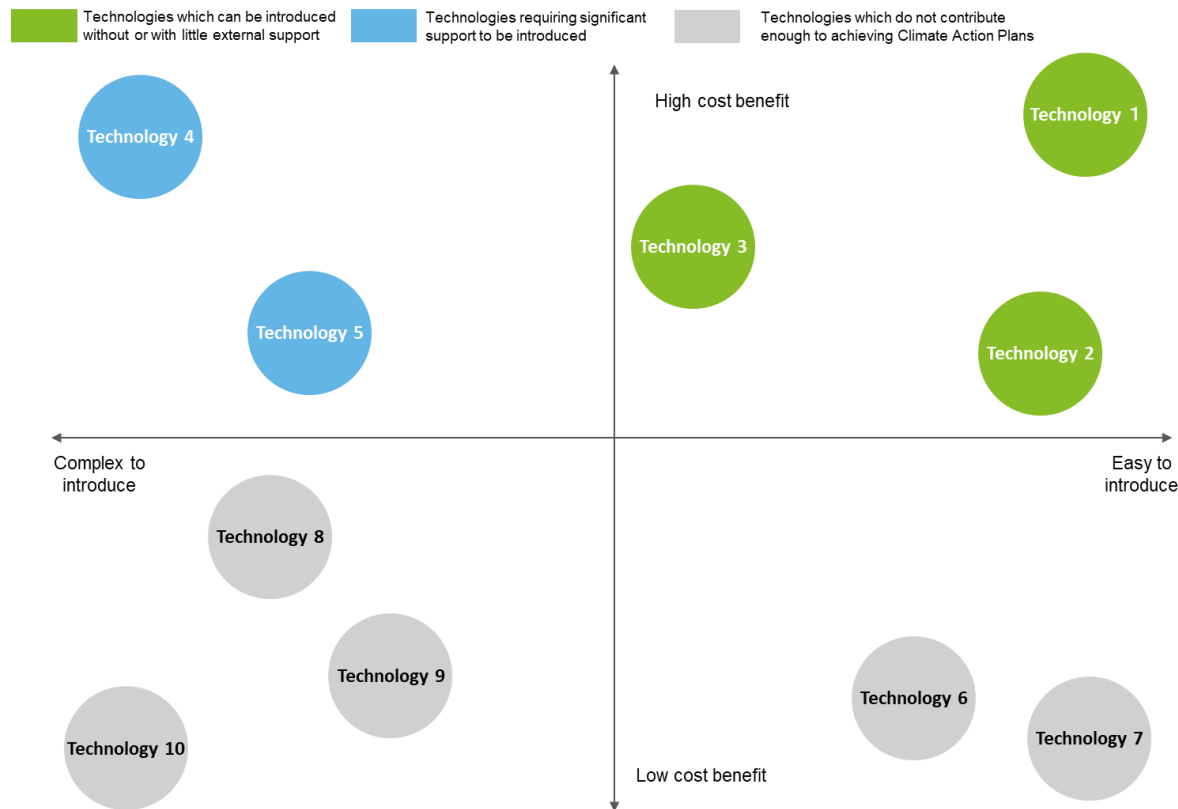


Figure 4: Illustrative technology prioritization mapping

The pipeline of prioritized technologies as well as the Identification and prioritization report will be made available by 30 April 2019.

Output 2: Roadmap for the implementation of the gender responsive mitigation and adaptation technology and business transfer as prioritized in the INCR, NAP and NDC developed and approved

After identifying a pipeline of prioritized technologies, the consulting team will develop a roadmap for their implementation.

Step 2.1 Develop a comprehensive roadmap for removing the barriers and risks (policy and financial de-risking instruments) for the implementation of the prioritized technology

Based on the analysis and assessments conducted under output 1, the barriers and risks, as well as the required actions and financial resources to introduce new mitigation and adaptation technologies will be identified. The necessary measures to remove the barriers and risks will be also identified by the consulting team and confirmed with the relevant stakeholder during interviews.

Actions and measures may include the review of the policy and regulatory framework, for example to introduce new regulations, capacity building measures or funding modalities, which will allow to reduce risk for the private sector to invest in the State of Palestine. Financial de-risking may include the financing / co-financing of projects by the GCF and other international financial institutions (IFIS) and

international organizations. Current concept notes submitted to the GCF for the State of Palestine only include grant funding. It will therefore be important to identify modalities where prioritized technologies could be financed with other funding modalities, such as loans, equity or guarantees, by the GCF and other co-funding partners.

Other actions may include technology demonstration projects, R&D and capacity building programmes for local engineers [or addressing indirect barriers](#).

When developing the roadmap, the consulting team will first identify where the technologies can be applied in the State of Palestine in terms of geographical areas (i.e. West Bank or Gaza Strip), in addition whether these technologies can be applied in the **status quo** (under Israeli occupation) or only when the full independence is achieved and no barriers related to Israeli occupation are foreseen. This will enable to determine the scope of their application, and therefore funding modalities. Institutional and political ownership, implementation arrangements and the oversight structure will also be clearly identified during this period. The expected impacts for each technology will be determined according to the GCF impact areas in mitigation and adaptation, to facilitate the development of future concept notes and proposals to the Fund.

In developing the roadmap, the consulting team will consult stakeholders related to mitigation and adaptation action in the State of Palestine, such as the Palestinian Government, the National Designated Authority (NDA) for the GCF in Palestine, National Designated Entity (NDE) for the CTCN in Palestine, the Environment Quality Authority, UNDP, UNEP / CTCN, civil society organizations and private sector organizations.

A validation workshop will also be organized in order to present the roadmap to all relevant stakeholders. Their comments will be integrated into the roadmap which will then be finalized by 30 June 2019.

Step 2.2 Develop a management plan for the monitoring and evaluation of prioritized mitigation and adaptation technologies and business transfers

To support the management and the achievement of the roadmap in step 2.1, the consulting team will develop a monitoring and evaluation (M&E) plan. The M&E plan will include a logical framework with SMART indicators, baselines and targets for each technology. The indicators will directly correspond to the objectives of each technology and to the final objective of the roadmap. Some examples of indicators for the introduction of the technologies include the reduction of GHG emissions, the number of adaptation activities implemented, number of beneficiaries, total area benefited, water savings and others.

For each activity determined within the roadmap, implementation timelines, budget, roles and responsibilities will be determined.

The M&E strategy will mainly detail who will implement M&E, the type of sources and methods used, as well as its timing. The M&E strategy will also clearly explain the purpose of M&E for each indicator and technology. It is important to determine beforehand which kind of data will be required from each prioritized mitigation and adaptation technology, so this can be measured from the beginning and constantly. In order to enable local stakeholders to collect this information, the M&E management plan will also include a set of data collection methods, adapted to each indicator, target and data collection method.

The M&E management plan will not only clearly detail monitoring activities, but also provide

comprehensive information on independent evaluations that will be implemented during and after the implementation of the roadmap.

Finally, the M&E management plan will clearly identify gender-responsive activities within the prioritized mitigation and adaptation technologies. These activities will be monitored with gender indicators, such as the number of men and women participating in capacity building activities and others.

The Monitoring and evaluation plan for the technology Roadmap will be made available by 30 June 2019.

Output 3: Gender responsive capacity development programme developed and approved to strengthen the policy, regulatory, institutional, technical, financial, business and social capacity of the key partners

After developing the roadmap and the corresponding M&E plan, the consulting team will develop a gender responsive capacity development programme, which will aim at strengthening the key partners' capacities in implementing the roadmap.

Step 3.1 Develop a long-term gender responsive Capacity Development Programme

At this stage, a significant amount of policy analysis and gap analysis (institutional, legal and others) will have been conducted as part of outputs 1 and 2. All these findings will be summarized in a capacity gaps and needs assessment report, covering institutional, legal, and human resource gaps. The report will be submitted for comments to UNIDO, CTCN and the stakeholders in the State of Palestine and finalized based on the provided inputs. The approved capacity needs assessment report will be the basis for developing the capacity in the country.

Based on the capacity needs and gaps assessment report, the consulting team in cooperation with local stakeholders will develop a capacity development action plan. The action plan will list concrete activities or capacity development and the timeline for their implementation.

An important aspect of the capacity development programme will be its gender responsiveness. All activities should take into account gender integration, by clearly formulating gender equality goals with capacity building activities and resources linked to it. A first step into this direction will be to integrate women in the decision making process for the capacity development programme. As much as possible, the consulting team will strive towards an equal representation of men and women as participants and facilitators in the workshop, as well as for the capacity building activities planned.

The Participatory Training programme and awareness raising programme will be developed as part of this step and will be made available by 31 August 2019.

Step 3.2 Develop the gender sensitive knowledge and communication products (guidelines, manuals, handbooks, toolkits, raising awareness materials (posters, brochures,...))

The consulting team will develop a series of gender sensitive knowledge and communication products to train public, private and society organization partners to scale up climate adaptation and mitigation technologies and businesses. Knowledge products will be determined based on capacity building needs and on extensive discussions with local stakeholders.

It may include case studies based on national, regional and international lessons learned and best practices, handbooks / toolkits to access finance with international partners, toolkits to identify regulatory gaps, and others. One key knowledge products will be related to the development of bankable projects and concept notes for the GCF.

All the knowledge and communication documents will be made available at the latest by 30 November 2019.

Step 3.3 Training for project proponents, NDA/FP and Trainers

Based on the capacity development programme developed in step 3.1, the consulting team will develop a series of capacity building workshops related to accessing GCF and potential IFIs funding:

- Project proponents will be trained to design and formulate high quality concept notes and full proposals that meet the GCF investment criteria. Potential beneficiaries include the Environment Quality Authority, the Ministry of Finance and Planning, the Ministry of Agriculture, the Palestinian Water Authority, the Ministry of Transportation and the Palestinian Energy and Natural Resources Authority, among others;
- NDA and other related stakeholders will be trained to appraise concept notes and proposals, which are to be submitted to the GCF and other international organizations / donors
- In order to ensure the sustainability of capacity building activities on the long-term, the consulting team will also train trainers from key institutions, such as Universities. Potential beneficiaries include Bizreit University, Hebron University, Palestine Polytechnique University, Al-Najah National University, and the Al Azhar University, among others.

Although this will be subject to discussions with local stakeholders, UNIDO and CTCN, it is expected the training will be delivered in a one-day workshop for each related sector / joint sectors. The organization of study tours and site visits in Palestine may also be considered.

This step will be implemented until 30 November 2019.

Step 3.4 Organize capacity - building for the institutions that will deliver the roadmap

An additional series of capacity-building activities will be organized for the institutions that will implement the roadmap, such as the Environment Quality Authority, the Ministry of Finance and Planning, the Ministry of Agriculture, the Palestinian Water Authority, the Ministry of Transportation and the Palestinian Energy and Natural Resources Authority, among others.

These activities will focus on the capacities required to implement, administer the roadmap and implement its M&E component. Although the capacity building activities required will be identified in step 1.1, the consulting team expects a number of components to be related with project management, monitoring and evaluation, including MRV, legal aspects required to implement the roadmap and other technical aspects.

A key element of the capacity building, in direct relation with step 3.3, will be its financing. If required, an additional module on financing modalities with the GCF, international organizations and donors will be organized. This will help the related stakeholder to understand investment criteria, ESS criteria and other important elements which should be taken into account when requesting funding.

This step will be implemented until 30 November 2019.

Step 3.5 Develop gender sensitive communications and guidance that may be needed to support the implementation of the roadmap

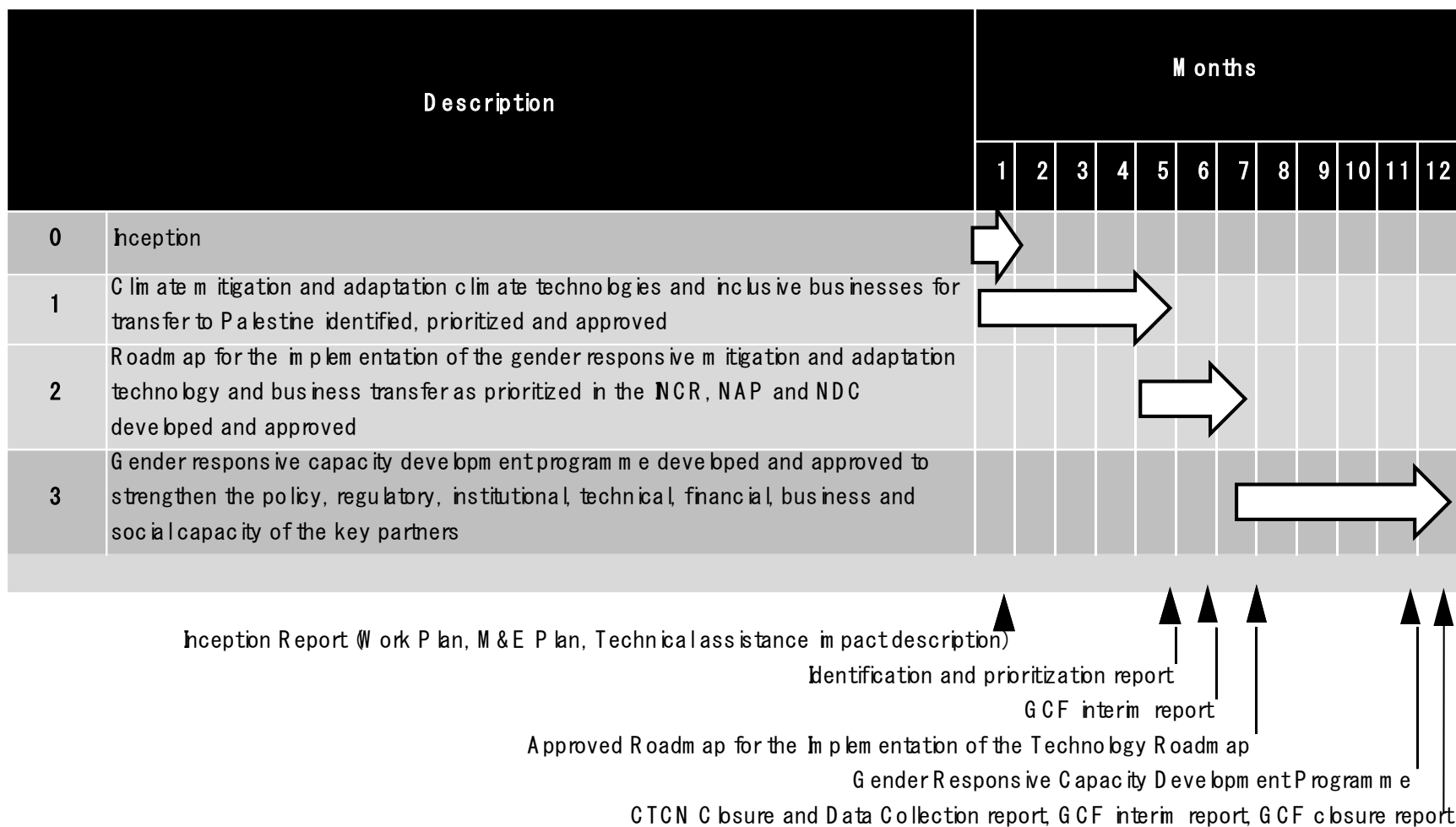
The consulting team will also develop additional communications and guidance for local stakeholders in order to support the implementation of the roadmap. Communications and guidance will integrate gender aspects. Communications and guidance material will be developed upon discussions with the Environment Quality Authority, the CTCN and UNIDO. At this point, the consulting team expects it to include awareness raising material aimed at promoting the roadmap and related activities and technical guidance required to implement some elements of the roadmap.

All the knowledge and communication documents will be made available at the latest by 30 November 2019.

3. Work Schedule

3.1 Implementation Timelines

This assignment will be delivered according to the following implementation schedule, within the period of 12 months, but not later than **November 30, 2019**. A detailed implementation plan, which includes the timelines and outputs by activity, is also available in annex.



3.2 Reporting Timelines

The consulting team will report to the Environment Quality Authority and the CTCN through its Team Leader, either directly when on the ground or from Japan and other Deloitte offices via teleconferences and e-mails. Whereas the Team Leader will regularly (at least monthly) inform the Environment Quality Authority and the CTCN and its partners about the progress of the activities, detailed reports will be provided at the time of the achievement of the following milestones as shown in the table below.

Description		Months											
		Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Deliverables	Monthly Meetings	○	○	○	○	○	○	○	○	○	○	○	○
1.1	Key success factors and case studies of successful business models		◎										
1.2	Gap and opportunity analysis report		◎										
1.3	Project screening and prioritization methodology			◎									
1.4	Key barrier identification and assessment report			◎									
1.5	Policy assessment report			◎									
1.6	Financial and non-financial measures identification report			◎									
1.7	Technology prioritization toolkit				◎								
1.8	Gender mainstreaming report				◎								
1.9	Pipeline of prioritized technologies					◎							
1	Identification and prioritization report					◎							
2	GCF interim report 1						◎						
3.1	Implementation structure of the prioritized technology							◎					
3.2	Monitoring and evaluation plan for the technology Roadmap							◎					
3	Approved Roadmap for the Implementation of the Technology Roadmap							◎					
4.1	Participatory Training programme and awareness raising programme									◎			
4.2	Knowledge and communication products												◎
4.3	Concept note development trainings, Concept note and proposal appraisal training, Training of trainers												◎
4.4	Capacity-building activities												◎
4.5	Knowledge and communication products												◎
4	Gender Responsive Capacity Development Programme												◎
5	CTCN Closure and Data Collection report												◎
6	GCF interim report 2												◎
7	GCF closure report												◎

Overall, the team leader will be responsible for monitoring of each member's performance and activities, and verifying that deliverables are prepared within the required quality level and submitted on time. The proposed schedule for the submission of the deliverables is summarized as follows:

Deliverables*	Target Deadline
Key success factors and case studies of successful business models	31 January 2019
Gap and opportunity analysis report	31 January 2019
Project screening and prioritization methodology	28 February 2019
Key barrier identification and assessment report	28 February 2019
Policy assessment report	28 February 2019
Financial and non-financial measures identification report	28 February 2019
Technology prioritization toolkit	31 March 2019
Gender mainstreaming report	31 March 2019
Pipeline of prioritized technologies	30 April 2019
Identification and prioritization report	30 April 2019
GCF interim report 1	31 May 2019
Implementation structure of the prioritized technology	30 June 2019
Monitoring and evaluation plan for the technology Roadmap	30 June 2019
Approved Roadmap for the Implementation of the Technology Roadmap	30 June 2019
Participatory Training programme and awareness raising programme	31 August 2019
Knowledge and communication products	30 November 2019
Concept note development trainings, Concept note and proposal appraisal training, Training of trainers	30 November 2019
Capacity-building activities	30 November 2019
Knowledge and communication products	30 November 2019
Gender Responsive Capacity Development Programme	30 November 2019
CTCN Closure and Data Collection report	30 November 2019
GCF interim report 2	30 November 2019
GCF closure report	30 November 2019
Work Plan (Inception Report)	30 November 2019

*Some of the deliverables may be bundled together as part of one report submission

4. Missions to Palestine

The Deloitte team working on the Assignment includes a local expert based in Palestine to carry out the different activities of the Assignment. In addition to the constant availability of consulting team

members on the ground, the international experts will carry out four missions to Palestine.

The first mission will be carried out for the purpose of collecting data and information, as well as consultations with key stakeholders, which are necessary for the completion of the tasks under steps 1.1 to 1.4. This will include the organization of an inception workshop and initiate the discussion on prioritization criteria.

The second mission will be carried out at the stage during finalization of the first output of the assignment, including organizing a workshop to select the technology pipeline and agree on prioritized list.

The third mission will be carried out to finalize the second output of the assignment. The Roadmap for the Implementation of the Technologies will be presented in a public workshop and the consulting team will collect public comments from a wide range of stakeholders. During the mission, the consulting team will also aim to develop a preliminary Participatory Training programme and awareness raising programme.

Finally, the fourth mission will be carried out for the purpose of implementing capacity building activities. A series of workshops and other relevant activities will be organized during this mission.

Mission	Contents	Deliverables	Duration	Tentative Schedule	Experts*
1st Mission	➤ Collection of data and information related to Steps 1.1 to 1.4	➤ Key success factors and case studies of successful business models	9 days	January 14 – 20, 2018	➤ Vladislav Arnaoudov
		➤ Gap and opportunity analysis report			➤ Raymond Caguioa
		➤ Project screening and prioritization methodology			➤ Samuel Alterescu
		➤ Key barrier identification and assessment report			➤ Jalal Al Khasawneh
					➤ Mohammed Alsayed
2nd Mission	➤ Reporting on the findings under Step 1.1 – 1.6 and 1.8	➤ Policy assessment report	5 days	Middle of March 2019	➤ Vladislav Arnaoudov
		➤ Financial and non-financial measures identification report			➤ Jalal Al Khasawneh
	➤ Development of the toolkit and selection of the technology pipeline under step 1.9.	➤ Technology prioritization toolkit			➤ Mohammed Alsayed
		➤ Gender mainstreaming report			
		➤ Pipeline of prioritized technologies			
3rd Mission	➤ Reporting of the outcomes under Output 2 and validation of the roadmap	➤ Approved Roadmap for the Implementation of the Technology Roadmap	5 days	Middle of June 2019	➤ Vladislav Arnaoudov
		➤ Participatory Training programme and awareness			➤ Jalal Al Khasawneh
	➤ Collection of data and				

4th Mission		information related to Step 3.1		raising programme			➤ Samuel Alterescu
							➤ Mohammed Alsayed
	➤ Capacity activities	building	➤	Concept note development trainings	7 days	Between September and October 2019	➤ Vladislav Arnaoudov
			➤	Concept note and proposal appraisal training			➤ Jalal Al Khasawneh
			➤	Training of trainers from key institutions			➤ Samuel Alterescu
			➤	Capacity-building activities			➤ Mohammed Alsayed

*Experts travels will be adjusting according to the progress of the assignment

List of attached annexes:

1. Annex 1: Implementation plan
2. Annex 2: Monitoring and evaluation plan
3. Annex 3: Technical Assistance impact description
4. CVs of the team members