United Nations Development Programme

Country/Region/Global: State of Palestine

Initiation Plan

Project Title & Number: 00108676- Enhancing climate smart agricultural (CSA) practices athe dairy value chain

Expected UNDAF/CP Outcome(s): Outcome 3.3: Palestine's infrastructure, and natural and cultural resources are more sustainably used and managed

Expected CPD Output(s): Enhanced adoption and demonstration of climate-smart agricultural (CSA) practices in the dairy value chain

Initiation Plan Start/End Dates: 1 November 2021 -30 April 2023

Implementing Partner: Ministry of Agriculture, and Environment Quality Authority

Brief Description

Cattle livestock are a major source of GHG emissions globally, where in Palestine most recent available data from the Palestinian Bureau of Statistics highlight that in 2011 there were 39,625 cows in the State of Palestine (26,477 in the West Bank), 59% of which were bred for dairy production. This includes 1,792 agricultural holdings with cattle for dairy production. Utilising the IPCC emissions formula from livestock manure, approximately 63 tonnes of methane was emitted per year based on the 2011 cattle numbers, equivalent to approximately 252 tonnes of CO_2. In addition, the underutilisation of by-products of production and agro-waste across the dairy production cycle is a key missed opportunity in the dairy value chain, particularly in the context of limited availability and high costs of production inputs. There is a substantial waste of resources that can be utilised as production inputs including in the production of fodder, production of energy and efficient use of water.

This project seeks to apply innovative approaches to optimise the use of resources while building resilience to climate change. It aims to enhance the adoption and demonstration of climate smart agricultural practices in the dairy value chain in line with the agriculture, forestry and other land use sector (AFOLU) mitigation action number 3 of the Mitigation Chapter of the First Biennial Update Report (BUR) of the State of Palestine. The project serves as a catalytic intervention that puts forth a circular economy model for dairy production using Al Mashrou' Al Arabi as a demonstration site, unlocking potentials of optimal use of renewable energy, using alternative water resources, and adoption of climate smart agricultural practices.

To this regard, the proposed project and model aims to develop a replicable model for agricultural transformation to climate-smart agricultural practices to mitigate the effects of climate change while strengthening national ownership leadership, and self-reliance.

Programme Period:	24 months
Atlas Project Number:	PAL10 109286
Atlas Output ID:	PAL10 108676
Gender Marker:	GEN 2

Total resources required	US$600,000
Total allocated resources:	_____
• Regular	_____
• Other:	
o Donor (Spain)	US$ 250,000
o Donor	_____
o Government	_____
Unfunded budget:	US$ 350,000
In-kind Contributions	_____

Agreed by UNDP:

UNITED NATIONS DEVELOPMENT PROGRAMME

I. PURPOSE AND EXPECTED OUTPUT

A short description justifying the need for an Initiation Plan for this project and the expected output.

The Palestinian Authority requires targeted support to identify and invest in strategic pathways for transformation in line with the State of Palestine's Nationally Determined Contribution (NDC). Where the revised mitigation strategy was endorsed in March 2021, the proposed project, thus, will contribute to the State of Palestine's implementation plan for the agriculture and energy sectors through designing, testing and demonstrating a circular economic model for climate-smart agriculture at the Al Mashrou' Al Arabi farm located in Jericho looking at the dairy value chain.

Established in 1945 with over 8,000 dunums, the farm has been and continues to be a strategic resource for the Palestinian agricultural sector with rich experience in providing technical and vocational training for agriculture students, farmers, and extension workers through demonstration workshops across the different features of the farm, from dairy production to bee-keeping to field crop management.

In the adoption of climate smart agricultural practices, (mitigation action #3)[1] the primary objective of the State of Palestine is for at least 50% of farms to apply climate-smart agriculture by 2040. A key barrier identified by national stakeholders in achieving this objective is the lack of pilot and demonstration sites alongside a lack of understanding of the technology. As such this project aims to address this need through catalysing on the history, experience and capacities of Al Mashrou' Al Arabi farm.

This project is in line with the newly revised Agriculture Sector Strategy 2020-2023 and the Cross Sectoral Environment Strategy 2020-2023, particularly:

- Strategic objective 3 of the Agriculture Sector Strategy: Natural and agricultural resources are managed sustainably and better adapted to climate change
- Strategic objective 3 of the Cross Sectoral Environment Strategy: Measures needed to adapt to the effects of climate change, reduce desertification and cope with environmental disasters and emergencies

The overarching objective of this project is ***enhanced adoption and demonstration of climate-smart agricultural (CSA) practices in the dairy value chain***.

The theory of change is as follows: If a scalable model is developed in the Al Mashrou' Al Arabi farm through incorporation of climate smart agricultural (CSA) practices including relevant lobbying at the policy level, creating incentive packages to enhance the enabling environment for CSA practices and circular economy principles; if one stream of the farm is invested in to improve utilisation of agro-waste in the dairy production cycle to demonstrate CSA technologies; and if the investments are coupled with capacity building and knowledge transfer activities for small farmers, then there will be enhanced adoption and demonstration of CSA practices in the dairy value chain.

Output 1: Scalable model for integrating CSA practices into the dairy value chain developed

This output will consider the existing policy framework for CSA adoption in the dairy value chain, including best utilisation of production inputs and waste, such as composting and biogas at farm level, to explore potential pathways to enhance the enabling environment for the adoption of CSA practices in the replication of the models invested in under this project. Doing so would enhance the potential for scalability. This output links to *output 6: Enabling environment enhanced for private sector engagement* of UNDP's global programme to support NDC follow up and implementation. Activities under this output will focus on two overarching areas, firstly developing the framework for greening action plan at the sub-sector level to integrate CSA practices to reduce GHG emissions while enhancing the productivity of dairy production; secondly the necessary institutional and regulatory framework to incentivise the adoption of CSA practices in the dairy sub-sector through establishing a multi-stakeholder forum to identify areas where private sector can best contribute to NDC implementation in the dairy sub-sector.

[1] *Under the agriculture, forestry and other land use sector actions highlighted in the Mitigation Chapter of the First Biennial Update report of the State of Palestine 2021*

Output 2: Improved utilisation of by-products and agro-waste in the dairy production cycle

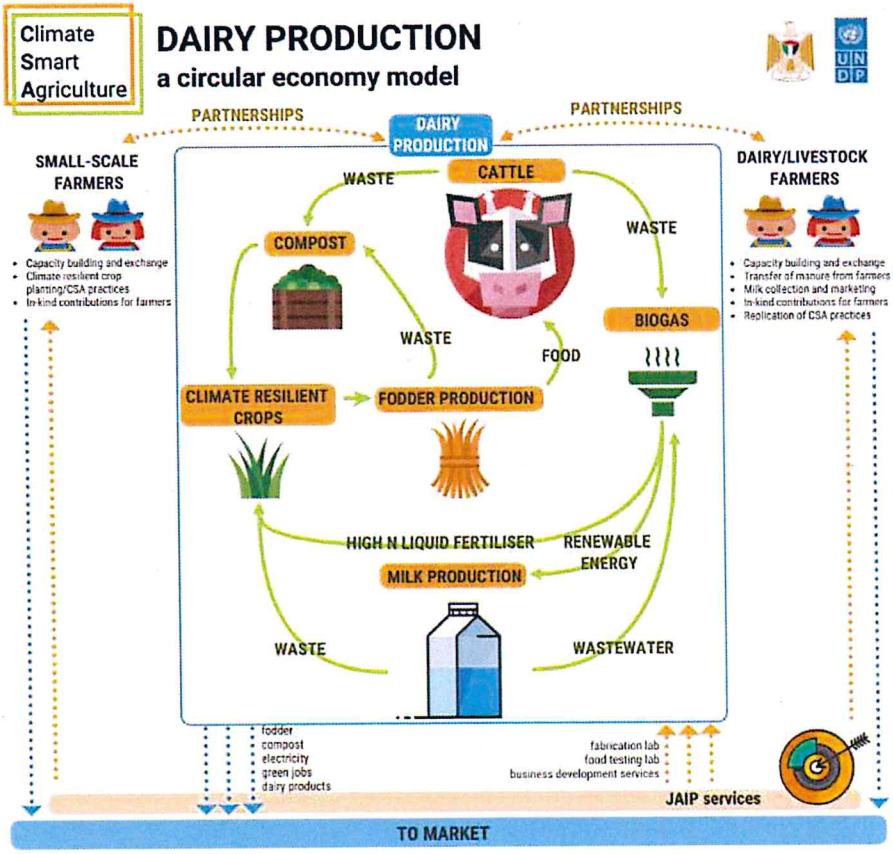
Activities under this output will focus on testing one aspect of the model developed under output 1, as the first phase to implement the model in the farm, either climate resilient crops and fodder production, biogas generation and/or composting. The focus will be decided based on the assessments conducted under output 1 alongside the availability of funds. This output can focus on uptake and utilisation of cow dung either as renewable energy through the installation of a biogas system or for composting. The current (and most widely used across Palestine) practice of managing cow dung is to ferment it by traditional means through drying in the sun, or dumping it into wadis which contributes to polluting of soil and water courses and the emission of methane into the atmosphere, and creates a foul odour and attracts insects.

This output is in line with *output 7 of UNDP's global programme: strengthened platform for evidence-based learning, advocacy and exchange of knowledge and experiences* of UNDP's global programme to support NDC follow up and implementation.

To this regard, activities under this output will introduce the demonstration of CSA practices, in line with the State of Palestine's NDC implementation plan for the agricultural and energy sectors.

As indicated above there is a critical need for an inception phase of 9 months to carry out detailed technical assessment and feasibility studies to quantify the scope of the investment packages that intended to be implemented under output 2. The assessment will consider different options to support transformation towards circular economy in the dairy industry. This would include as indicate in the below tentative model: waste 2 energy, wastewater reuse, waste 2 fodder, waste circular solutions, energy efficiency measures, and environmentally friendly packaging.

Figure 1. Tentative model for CSA practices in dairy production



II. MANAGEMENT ARRANGEMENTS

A short description of the individuals, organisations, and/or team structure required to conduct the activities of the Initiation Plan. If the size and scope of the Initiation Plan requires the establishment of a project board, describe the structure here and include a diagram if needed, drawing from the standard diagram provided in the full project document template.

The project will be directly executed by UNDP following the Direct Implementation Procedures (DIM). Under this modality, UNDP takes full responsibility for implementation, management, and achievement of project objectives. The UNDP technical team will be working in close cooperation with the concerned national stakeholders, namely, the Ministry of Agriculture and the Environment Quality Authority to deliver the results of the project.

In this regard, UNDP will sign MOU with the Ministry of Agriculture as the institutional lead for the mitigation and adaptation measures for the agriculture, fishery and other land use sector. The MoA will be responsible for ensuring that the project scope and results will support and benefit small-scale farmers, and that CSA capacities are integrated into existing extension services of the MoA in the related areas. In addition, UNDP will sign another MOU with the Environmental Quality Authority (EQA), as the institutional lead for safeguard the environment, monitoring and reporting on Palestine's progress towards the NDC.

During the inception phase a technical project steering committee will be established under output 1 to review the value chain analysis of diary sector and the proposed greening action plan. The steering committee will meet quarterly and will include technical staff from the MoA, EQA, Al Quds University, Arab Development Society (AL-Mashroua), and a representative from the farmers' association.

The UNDP team will carry out day-to-day management and supervision of the project's activities with proper monitoring and evaluation as well as quality assurance. UNDP project management team will be supported by a local technical expert in food value chain to advise in designing the model and development of the project document.

III. MONITORING

A description of the monitoring requirements for the Initiation Plan.

Please refer to how the output and associated activity results shall be monitored, reviewed and assessed, depending on the scope and duration of the Initiation Plan (i.e. an Initiation Plan with a 9 months duration to start-up pilot activities shall require the combination of various monitoring tools and mechanisms, as opposed to a short Initiation Plan established to hire a consultant for the finalization of the Project Document).

As minimum requirement, an Initiation Phase Report should be prepared at the end of the Initiation Plan, using the standard format available in the Executive Snapshot in addition to attaching the full project document if developed or an explanation if initiation failed to produce a full project.

United Nations Development Programme

In accordance with UNDP's programming policies and procedures, the project will be monitored through the following monitoring and evaluation plans:

Monitoring Plan

Monitoring Activity	*Purpose*	*Frequency*	*Expected Action*	*Partners (if joint)*	*Cost (if any)*
Track results progress	*Progress data against the results indicators in the RRF will be collected and analysed to assess the progress of the project in achieving the agreed outputs.*	*Semi annual*	*Slower than expected progress will be addressed by project management.*	*MoA and EQA*	
Monitor and Manage Risk	*Identify specific risks that may threaten achievement of intended results. Identify and monitor risk management actions using a risk log. This includes monitoring measures and plans that may have been required as per UNDP's Social and Environmental Standards. Audits will be conducted in accordance with UNDP's audit policy to manage financial risk.*	*Quarterly*	*Risks are identified by project management and actions are taken to manage risk. The risk log is actively maintained to keep track of identified risks and actions taken.*		
Learn	*Knowledge, good practices and lessons will be captured regularly, as well as actively sourced from other projects and partners and integrated back into the project.*	*Quarterly*	*Relevant lessons are captured by the project team and used to inform management decisions.*		
Annual Project Quality Assurance	*The quality of the project will be assessed against UNDP's quality standards to identify project strengths and weaknesses and to inform management decision making to improve the project.*	*at the end of the project initiation plan (final report)*	*Areas of strength and weakness will be reviewed by project management and used to inform decisions to improve project performance.*		
Review and Make Course Corrections	*Internal review of data and evidence from all monitoring actions to inform decision making.*	*Semi annual*	*Performance data, risks, lessons and quality will be discussed and used to make course corrections.*		
Project Report	*A progress report will be presented to key stakeholders, consisting of progress data showing the results achieved against the pre-defined targets at the output level*	*at the end of the project initiation plan (final report)*			

IV. WORK PLAN

Period[2]:

EXPECTED OUTPUTS *And baseline, indicators including annual targets*	PLANNED ACTIVITIES *List activity results and associated actions*	TIMEFRAME						RESPONSIBLE PARTY	PLANNED BUDGET		
		Q1	Q2	Q3	Q4	Q5	Q6		Funding Source	Budget Description	Amount
Output 1 *Scalable model for integrating CSA practices into the dairy value chain developed* *Baseline: N/A* *Target: yes* *Indicator: existence of framework for greening up the dairy value chain*	Activity result 1.1 Framework for greening up the value chain of the dairy sector developed and consulted with stakeholders • Carry out a rapid survey targeting 20 establishments (cow farms, factories, market) across the value chain • Carry out a value chain analysis at the sub-sector level to identify greening interventions in reference to ISO 14000 and ISO 22000 analysing barriers that hinder private investment to enhance efficient use of resources • Review the current legal framework and suggest a set of recommendations to unlock private engagement in greening up the value chain • Organise 2 consultation sessions with related stakeholders including private sector, governmental and non-governmental institutions to discuss and finalise the draft framework	X	X	X				UNDP/PAPP	UNDP HQ/Spain	Contractual services companies	80,000
Baseline: N/A *Targets: yes* *Indicator: existence of business model for greening the dairy value chain at Al-Mashroua Al Arabi*	Activity Result 1.2 Business model for greening up the value chain of dairy production at al Mushroua al Arabi developed and consulted with stakeholders • Prepare a circular economy action plan, feasibility study and conceptual design for testing the circular model at the demonstration site of al Mushruoa Al arabi • Organise 1 consultation sessions with related stakeholders including private sector, governmental and non-governmental institutions to discuss and finalise the business model			X							

[2] Maximum 18 months

Output 2 Improved utilisation of by-products and agro-waste in the dairy production cycle *Baseline: draft scoping of suggested by-products discussed with stakeholders* *Target: scoping of by-products prepared, ranked, costed, and endorsed* *Indicator: existence of detailed scoping, costed and endorsed by the project steering committee*	Activity results 2.1 Circular economy model tested at Al-mushruoa al Arabi • Finalize the investment packages for implementation of circular economy model at Al-mushroua • Prepare implementation plan for the first priority investment package • Based on budget availability implementing the pilot phase as a proof of concept. This could include interventions on utilisation of waste 2 energy, waste 2 fodder, energy efficiency, wastewater reuse)				X	X	X	UNDP/PAPP	UNDP HQ/Spain	Contractual services companies	100,000
Baseline: N/A *target: TBD* *Indicator: # of new by-products tested and applied as part of the proof of concept in the proposed circular economy model.*	Activity results 2.2 Position paper to foster greening the value chain in the dairy sub-sector discussed and disseminated • Prepare draft position paper to introduce recommendations and changes in the current policies • Organise 1 consultation sessions with stakeholders to discuss and make recommendations to change the current policies to foster greening up the value chain in the dairy sub-sector					X	X	UNDP/PAPP	UNDP HQ/Spain	Individual consultancy services	15,000
Baseline: N/A *Target: yes* *Indicator: existence of draft policy paper to foster greening the dairy value chain*	Activity results 2.3 capacity building workshops on tested CSA practices conducted by al Mushruoa al Arabi • Organise 2 capacity building workshops for 40 farmers • Prepare a capacity building report reflecting on farmers feedback from the workshops						X	UNDP/PAPP	UNDP HQ/Spain	Training and workshops	5,000
Baseline: *N/A* ***Target:*** *80% at least of the participated female and male farmers reported increased awareness and knowledge in CSA practices* ***Indicator:*** *% of female and male farmers reported increased awareness and knowledge in CSA practices*											
Subtotal Programme											200,000
Project direct cost											31,481
GMS											18,519
Total											**250,000**