



PROJECT PREPARATION GRANT (PPG)

PROJECT TYPE: Full-sized Project

TYPE OF TRUST FUND: LDCF

Submission date: 01/22/2013

GEF PROJECT ID: 5211

GEF AGENCY PROJECT ID: 4989

COUNTRY(IES): Yemen

PROJECT TITLE: Integrated Water Harvesting Technologies To Adapt To Climate Change Induced Water Shortages

GEF AGENCY(IES): UNDP, (select), (select)

GEF FOCAL AREA(s): Climate Change

A. PROJECT PREPARATION TIMEFRAME

Start date of PPG	05/01/2013
Completion date of PPG	04/01/2014

B. PROPOSED PROJECT PREPARATION ACTIVITIES (\$)

Describe the PPG activities and justifications:

1. The final product of the proposed PPG phase will be a UNDP-GEF compliant, full-sized project document for submission to the LDCF. The formulation will be guided by UNDP's toolkit for designing climate change adaptation initiatives (2010). The document will cover the following in detail:

COMPONENT 1: Technical Definition and Capacity Needs Assessment

(a) Definition of project baseline

2. A detailed review of existing climate observation, forecasting and early warning capacities will be undertaken. This analysis will take stock of the current state of community resilience to existing climate variability and projected climate change impacts, especially in relation to changes in rainfall patterns and implications on rainfed farming systems. It will particularly investigate the current situation with regards to water availability and access by the communities and current coping strategies, through water harvesting methods. The baseline analysis will provide details about current and planned development initiatives in the target areas and outline climate-related challenges and opportunities that need to be addressed in order to make rainfed farmer and pastoral communities and their livelihoods more resilient to key climate-induced risks, especially in the context of anticipated water shortages.

3. The baseline analysis will include a review of ongoing development projects and the use of public funds on the water supply systems, including the groundwater extraction, management, investments in irrigation network, both maintenance and expansion, and the policies that govern the water use, distribution rules and an overall management. It will also review the geographic extend and scale of planned investments in the sector of water, mainly with the focus on irrigation, but the investments in household supplies will also be reviewed. PPG under this component will produce an inventory of policies, laws, executive regulations and decrees that govern water supply and management and issues of access to farmers and pastoralists. In terms of issues of access to water will be particularly studied in the project target municipalities of Ibb, Taiz, Sana'a, Dhamer, Al Mahweet and Al Mukalla. This analysis will be the basis for the definition of capacity

development activities, including legal and financial incentives that can feasibly and sustainably improve water access and availability in Yemen through stimulating water harvesting. The municipal and community water plans, potential roles of water user associations to introduce such methods of locally acceptable water use and distribution rules such as seasonal water rationing, customer-oriented distribution rules, role of Al Moqadem in addressing the distribution issues and related conflicts. The PPG will examine the critical barriers to the adoption of water harvesting methods and technologies at a greater scale in Yemen and the potential and opportunities for inclusion of harvested water into the national water budget. A range of financial instruments that can effectively serve to promote the water harvesting will be identified. These may include the concessional loans, micro loans, employment guarantee arrangements to secure the jobs for operations and maintenance of the water harvesting infrastructure. The PPG will also examine the role of the Social Development Fund in this regard, more specifically in designing a set of incentives to attract communities and private investment into the sector of water harvesting. Capacity needs of the Social Development Fund in support of introduction of the technologies and provision of grants and job guarantees for the progressive evolution of this sector will be identified and the clear strategy formulated. For example, WH measures will be implemented by using local work force and help to turn the water harvesting sector into the local employment opportunity. The PPG will review the existing Labour Intensive Works Programme under the Social Development Fund to help create additional job opportunities in water harvesting sector. The seasonal employment on public works for cash transfers or direct benefits of partaking in management and accessing harvested waters can also provide important stimulus for many disadvantaged farmers to participate in water harvesting schemes, and will be examined during the feasibility. Moreover, the capacity development needs, including the training needs, of the engineering unit at the SDF will be examined and documented to formulate a clear technical capacity development and skill building strategy for the development of water harvesting technologies, methods and associated infrastructure. As part of the baseline study, AMAT indicators will be selected, and their baseline values determined.

(b) Identification of current and projected climate change risks

4 PPG resources will be used to undertake a detailed climate change risk analysis, especially in the context of rainfed communities livelihoods and risks of water shortages in Ibb, Taiz, Sana'a, Dhamer, Al Mahweet and Al Mukalla. Drawing on the NAPA findings and ongoing SNC process, resources will only be used to target additional analysis identifying the likely biophysical impacts, where they are likely to occur, on what scale, the timing of expected changes, and the socio-economic implications of the anticipated changes all in the context of water availability. The analysis will reflect the available range of climate and socio-economic scenarios on which impacts are projected, and define knowledge gaps that need to be addressed in the full-sized project.

5. PPG resources will be used to undertake a review of community vulnerabilities in order to guide the formulation of project interventions. In particular, resources will be used for the following:

- To outline a technically sound description of how climate change is projected to affect rainfed farmer and pastoral communities (taking into account gender disaggregation) and livelihoods of rainfed communities in their current setup (i.e. without additional risk mitigation measures, such as additional water resource mobilisation from the harvested water). This analysis will be based on existing climate change scenarios.
- PPG resources will then be used to estimate the likely costs and benefits of proposed project interventions - development of water harvesting techniques and technologies (including probability of success) to mitigate identified climate change risks. Associated with this, a detailed description of expected project implications on existing institutional/policy/legislative frameworks will be made. This includes a review of relevant laws, regulations, responsibilities, and financing provisions that have a bearing on a

conducive structural environment for climate change adaptation.

6. Stakeholder consultations, taking into account gender specifics, and validation with relevant governmental and non-governmental agencies, as well as other bilateral donors, will supplement the findings of the climate change risk review and inform the technical feasibility and needs assessment for the proposed project. PPG funds will not be used to duplicate work already completed through the NAPA, and SNC process.

(c) Identification of specific sites for intervention

7. PPG will finance the feasibility of introducing water harvesting methods and technologies in Yemen. The PPG will undertake a detailed inventory of existing methods that are traditional and proved cost-effective. During the feasibility it will also examine a wide range of traditional and modern methods of water harvesting not only in the context of Yemen but in the broader Arab region and throughout Africa, where the mobilisation of additional water becomes an inevitable climate change risk management strategy. Key risk descriptions and risk management / mitigation options; main anticipated development and risk reduction benefits; and recommendations for an upscale of successfully tested methods and technologies of water harvesting through a range of instruments nested under the Social Development Fund and other mechanisms will be put forward by PPG studies. A thorough assessment of the location specific risks that this project will need to overcome will be clarified and inform the overall design of the project. A participatory stakeholder approach to site selection and definition of water harvesting options (involving relevant local institutions, the private sector, and representatives of civil society) will be employed and outlined in the UNDP-GEF Project Document. The financial scope of the FSP will be aligned with the project's potential for wider regional impact and maximum replication of adaptation benefits.

(d) Clarifying additionality of proposed Outcomes and interventions

8. The additionality of the proposed project, relative to baseline development needs, will be clarified in the context of the proposed Outcomes as outlined in the PIF. A detailed description will be provided on how LDCF resources will be directed towards the additional cost of ensuring that baseline activities incorporate climate change concerns, especially in the water sector. Towards this end, detailed stakeholder consultations will be undertaken to assess the current range of activities in securing water for farming and household purposes that are already taking place in different rainfed communities of the target six municipalities in relation to addressing water shortages, especially through water harvesting a) require additional climate-proofing components to increase their resilience or b) have potential for technical enhancement and modification to effectively provide added value in increasing resilience to climate risks.

9. This review will include an inventory of who is doing what, at which scale and in which village within the target municipalities. This information will ensure that the design of the full-size project document links to other, planned and ongoing activities. The inventory will contribute to explicitly describing specific urgent and immediate adaptation actions that require additional responses to account for climate change-induced risks. It will also inform key activities in alignment with UNDP's core competencies and comparative advantage.

10. The review and stakeholder consultations will facilitate discussions with other local and international institutions pursuing similar objectives/outcomes, and identify important partnerships including co-financing opportunities. It will also facilitate discussions with other agencies such as the Social Development Fund of Yemen, MFIs, National Irrigation Programme, Bilateral and Multilateral organisations that are already extending support in the sector of water and others on potential partnerships whereby the comparative advantage of these agencies can be brought in to bear on the design and implementation of this project.

(e) Integration with development plans, policies and complementary projects

11. The project will integrate climate change concerns and related necessity to promote effective water harvesting options into relevant national development plans and policies and also align itself with other core UNDP activities in Yemen. In order to identify linkages of climate change concerns into national development plans and policies, a review of relevant development policies will be undertaken. Useful documents in this regards are (i) National Agriculture Sector Strategy; (ii) National Irrigation Programme (iii) National Water Sector Strategy and Investment Programme (NWSSIP). A review of the UN/UNDP programming documents such as the United Nations Development Assistance Framework (UNDAF) and UNDP Country Programme Document (CPD) or Common Country Framework (CCF) will also be undertaken in order to ensure that the project is anchored on relevant ongoing UN development programmes/projects, especially those that are geared towards capacity development of National Social Development Fund.

12. The FSP definition phase will ensure that alignment with the PPCR and other NAPA follow-up project will be made in terms of deriving from the successful on the ground adaptation measures (focusing on water supply, management and particularly water harvesting techniques) and feeding these and additional measures in to the local water plans that are to water harvesting development in Yemen and its full-fledge integration into the national water budget.

COMPONENT 2: Institutional Arrangement. Monitoring and Evaluation.

13. The outputs of Component 1 will be used as technical input for the formulation of a full-sized UNDP-GEF compliant Project Document for the proposed project. Technical assistance will be required by national and international consultants who are (i) experienced in GEF project formulation; (ii) familiar with UNDP project implementation requirements; (iii) technically competent in the analysis of climate change impacts and adaptation options in the context of the project scope outlined in the PIF; and (iv) familiar with the institutional setting in Yemen.

(a) Finalization of a Strategic Results Framework and definition of monitoring and evaluation provisions

14. PPG resources will be invested into a participatory approach to finalize a detailed Strategic Results Framework, which includes revision and confirmation of the project goal, objective, outcomes, outputs, and their corresponding indicators of success. Qualitative and quantitative monitoring and evaluation indicators to measure and verify successful delivery of Project Objective and Outcomes will be communicated to stakeholders (AMAT framework will guide this exercise). The FSP will furthermore contain a work plan to guide the project implementation phase. A Monitoring and Evaluation strategy will be defined including clear identification of responsibilities and institutions, as well as an appropriate budget allocation (based on best practices and UNDP guidelines). This will also reflect the requirements of the Implementing Agency vis-à-vis its standard reporting and evaluation mechanisms. The Monitoring Plan will make reference to the above described qualitative and quantitative indicators that will measure the state of adaptive capacity at various stages of project implementation. Provisions for independent evaluation and provisions to ensure learning of lessons from implementation will be included.

(b) Definition of project roles and responsibilities

15. A delivery strategy with clearly identified roles and responsibilities of specific institutions for the overall management of the project will be specified. A capacity analysis will be undertaken with relevant Ministries and/or other appropriate local institutions that could implement the full size project. Details on

oversight of technical activities, including requisite reporting procedures, will be established. UNDP guidelines as articulated in the Results Based Management Framework will be followed in formulating and describing these details.

(c) Exit Strategy (Sustainability)

16. A detailed sustainability strategy will be defined in order to ensure replication of project benefits beyond the lifetime of the project. The PPG phase will focus on tangible milestones and agreements within the project cycle to ensure propagation of additional investment decisions for the replication of project benefits.

COMPONENT 3: Stakeholder Consultations

17. PPG resources will be utilized to engage key stakeholders at the national/sub-national, municipal and community level during the project design phase. In alignment with the approved project objective, a comprehensive stakeholder dialogue will be initiated to determine stakeholder needs vis-à-vis adaptation to potential climate change impacts, existing barriers to water harvesting as a priority adaptation option, expertise that might be helpful in designing the project, and mapping of stakeholders who have been involved in similar initiatives or planning processes. The following activities will be undertaken:

(a) Mobilize and engage stakeholders

18. Participatory development of a detailed delivery work-plan will be followed by approval and endorsement by key stakeholders. The successful completion of the preparatory phase will require participation by a diverse range of number of key stakeholders:

- Public, private, and international institutions that monitor and produce information related to climate change impacts on Yemen. A mechanism for sharing climate data and information on climate risks across numerous organisations charged with certain set of responsibilities in relation to water resource management will be determined during the preparatory phase;
- A wide array of national agencies, such as National Water Authority, Social Development Fund and associated programmes and facilities, local governments, NGOs, international technical cooperation bodies, and local communities, will be consulted in order to establish an effective framework for the proposed project;
- A plan for project management during the implementation phase of the FSP will be discussed and finalized during the preparatory phase.

(b) Definition and extension of partnerships

19. The PPG phase will include participatory negotiations with local communities and stakeholders to map existing adaptation strategies and cost additional adaptation requirements. Partnership requirements for support and co-funding at various levels (including government, Social Development Fund, private sector) will be explored and outlined in the project document. Public-private partnerships and institutional-community partnerships which are beneficial to achieving the project objective will be defined.

(c) Community Mobilization

20. A detailed work plan based on a participatory stakeholder approach will be developed to mobilize local communities to contribute to the definition, implementation, monitoring and evaluation of relevant project components. This may include community participation in tracking the delivery of specific project

Outcomes.

COMPONENT 4: Financial planning and co-financing definition

(a) Facilitation and support of Government negotiations and consultations on project-related issues

21. PPG resources will be used to finance the cost of facilitating and supporting the government of Yemen to reach agreement on project objective, outcomes, outputs and indicators and finalize government contributions and partnerships for support and co-funding of the envisaged project results.

(b) Exploration of Multilateral and Private Sector co-funding opportunities

22. PPG resources will be used to finance the cost of partnership development and the pursuit of co-financing opportunities at various levels with multi-lateral funding institutions and the private sector. The PPG will enable networking at the global and national level in order to ensure a coherent and sustainable financing approach with perspectives beyond the project lifetime.

(c) Preparation of official endorsement letters and guarantees

24. An official endorsement letter will be prepared by the GEF Operational Focal Point of Yemen. A co-financing guarantee will be collected from participating government institutions, multilateral development partners and private sector who provide in cash or in kind contributions to this project.

List of Proposed Project Preparation Activities	Output of the PPG Activities	Trust Fund	Grant Amount (a)	Co-financing (b)	Total c = a + b
Technical definition and capacity needs assessment	1. Project goal, objective, outcomes, outputs and activities defined. 2. Description of geographical breakdown of project across outer islands. 3. Specification of all adaptation activities to be financed by LDCF and their adaptation rationale. 4. Collation and synthesis of supporting documentation to justify project interventions 5. Review and analysis of current and past donor, government and donor projects	LDCF	56,000	40,000	96,000

	relating to strengthening resilience in Sudan. 6. Clear description of baseline activities and related sources of financing.				
Institutional arrangements, monitoring and evaluation	1. Project management and reporting arrangements defined 2. Workplan with detailed roles, responsibilities and timeline for project implementation 3. Strategic results framework and M&E system defined with quantifiable and verifiable impact indicators. 4. Review and summary of policy and regulatory framework for governance, ecosystem management and rural infrastructure.	LDCF	20,000	20,000	40,000
Stakeholder consultations	1. Stakeholder involvement plan with focus on community level beneficiaries 2. Detailed list of all stakeholder consultations during PPG	LDCF	20,000	33,000	53,000
Financial planning and cofinancing	1. Endorsement letters and letters confirming co-financing commitments obtained	LDCF	4,000	7,000	11,000
PPG Management	1. List of all PPG activities including financial reconciliation 2. UNDP-GEF compliant full-sized project document for submission to LDCF	(select)		20,000	20,000

	including AMAT framework.				
		(select)			0
		(select)			0
		(select)			0
		(select)			0
		(select)			0
		(select)			0
		(select)			0
Total Project Preparation Financing			100,000	120,000	220,000

C. FINANCING PLAN SUMMARY FOR PROJECT PREPARATION GRANT: (\$)

	Project Preparation	Agency Fee
Grant Amount	100,000	9,500
Co-financing	120,000	
Total	220,000	9,500

D. PPG AMOUNT REQUESTED BY AGENCY(IES), FOCAL AREA(S) AND COUNTRY(IES)¹

Trust Fund	GEF Agency	Focal Area	Country Name/ Global	(in \$)		
				PPG (a)	Agency Fee (b)	Total c = a + b
LDCF	UNDP	Climate Change	Sudan	100,000	9,500	109,500
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
Total PPG Amount				100,000	9,500	109,500

¹ No need to provide information for this table if it is a single focal area, single country and single GEF Agency project.

E. PPG BUDGET


Cost Items	Total Estimated Person Weeks for Grant (PW)	Grant Amount (\$)	Co-financing (\$)	Total(\$)
Local consultants *	30.00	24,000	40,000	64,000
International consultants*	30.00	60,000	40,000	100,000
Travel		10,000	15,000	25,000

Technical workshops		6,000	5,000	11,000
Management			20,000	20,000
		0	0	0
Total PPG Budget		100,000	120,000	220,000

* Annex A for Consultant cost details should be prepared first before completing this table. See notes on Annex A for the required detailed information. This table is the sum of all local and international consultants presented in Annex A.

F. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF policies and procedures and meets the GEF LDCF/SCCF Trust Fund criteria for project identification and preparation.

Agency Coordinator, Agency Name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
Yannick Glemarec, Executive Coordinator, UNDP/GEF		January 22, 2013	Keti Chachibaia, Regional Technical Advisor, Bratislava	+421 2 59337 422	keti.chachibaia@undp.org

Annex A

Consultants Financed by the Project Preparation Grant (PPG)

Type of Consultant	Position / Titles	\$/ Person Week¹	Estimated PWs²	Tasks to be Performed
International	Project Development Specialist, Climate Change Adaptation Expert In The Area Of Water Management	2500	15.00	<ul style="list-style-type: none">- Guide implementation of the PPG phase including inception meeting;- Compile and collate existing baseline data, including available climate scenarios and impact information- In consultation with local stakeholders identify vulnerable sites to climate related risks, especially severe drought prone areas in the regions of high rainfall variability.- Prepare problem analysis and identify options for climate risk reduction and resilience building for rainfed farmers and pastoral communities, especially in relation to coping with current and anticipated water shortages.- Oversee finalization of a Results Framework and definition of indicative project activities;- Define a project work plan and coordinate input by the national consultant;- Quality control for the FSP in line with UNDP/GEF requirements;- Assist in verifying climate risks associated with the project's target areas;- Validate problem analysis of the project;- Guide the determination of the scope and strategy of the project;- Finalize project Outcomes, Outputs and their corresponding verifiable indicators of success;- Ensure additionality of the project and guide/facilitate respective discussions;- Ensure that the project approach is cost-effective;- Contribute to the definition of UNDP-GEF compliant management arrangements;- Facilitate the process of co-financing design and ensure that co-financing letters are obtained;- Facilitate stakeholder consultations

				on project preparation, including finalization of a detailed budget and TOR for all inputs in line with UNDP-GEF criteria and eligibility principles
International	Project Development And Water Expert, Especially In The Area Of Water Harvesting Methods And Technologies	1500	15.00	<p>Compile and collate existing baseline data, including available climate scenarios and impact information</p> <ul style="list-style-type: none"> - In consultation with international project development specialist identify vulnerable sites to climate related risks in relation to water shortages. - Prepare problem analysis and identify options to climate risk reduction and cost-effective water mobilisation / harvesting options for rainfed farming and pastoral livelihoods. - Identify and formulate a range of methods and technologies of water harvesting to be applicable and cost-effective in the context of Yemen and in particular in the 6 identified municipalities. Bring best regional and international experience in cost-effective water harvesting methods that can be customised in Yemen, including traditional methods that are being practiced in the country; In the context of technological review consider those that contribute to groundwater recharge and can secure additional water resource to the existing irrigation systems as well as outside of irrigation systems. - Identify service and financial mechanisms that can stimulate and develop water harvesting as an integral part of water sector; These mechanisms include micro loans, government grant programmes and investments; as well as necessary legal and regulatory framework and procedural arrangements that are necessary to develop for the sustainability of water harvesting sector. - Carry out baseline assessment of specific sites contributing to AMAT development. - Support project development specialist to prepare project documentation.
Local	Water / Water Harvesting Expert	800	30.00	<ul style="list-style-type: none"> - Compile and collate existing baseline data on water supply situation in Yemen, including existing water harvesting practices. Analyse a current

				<p>portfolio of investments and grant programmes that support water harvesting , good practices and failures.</p> <ul style="list-style-type: none"> - Prepare problem, root cause and barrier analysis for water harvesting development in Yemen at a scale that is necessary to address climate change induced water shortages; - Identify policy, regulatory and financial mechanisms that can effectively stimulate water harvesting, not only as a method of additional water mobilisation but also as means to improve other related sub-sectors, such as groundwater recharge/ management and irrigation. - Support project development specialist to prepare project documentation.
(Select)				
(Select)				
(Select)				
(Select)				
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¹ Provide dollar amount per person week.

² Provide person weeks needed to carry out the task