

ward ID: 00079907  
 Project ID: 00089774  
 Title:

Work Plan (AWP) for 2014-2018:

**GEF: Catalysing the Use of Solar Photovoltaic Energy**



UNDAF Outcome: Outcome 3. Environmental management and compliance with ratified international environmental treaties and  
 Applicable Key Result Area (from 2008- Promoting inclusive growth, gender equality and MDG  
 CPAP Outcome: GoI has the institutional framework to develop and implement MDG-based pro-poor, equitable and inclusive socio-  
 CPAP Output(s): Capacities of national and sub-national authorities and communities for effective environmental governance, natural

Expected Outputs	Outputs/Activities	2015				Fund Source	Budget Description	Responsible Party	Amount (USD)
		Q1	Q2	Q3	Q4				
<i>Baseline, associated indicators and annual targets</i>	<i>List activity results and associated actions</i>								
<b>Outcome 1</b> Investment in solar photovoltaic power technologies for distributed electricity generation for office, residential, small business and small town application.	<b>1.1 Activity Result: Assessment of PV technology, including cost-benefit analysis of a range of configurations, for distributed solar rooftop units suitable for the Bytti project in Najaf, with total capacity of 5 MW.</b>								
	- Action: Recruitment of international consultant to conduct evaluation of (1) crystalline (mono and poly) and	x	x	x	x	62000	71200	UNDP	45,000
	- Action: Recruitment of national consultant to support in evaluation of crystalline (mono and poly), thin-film	x	x	x	x	62000	71300	UNDP	20,000
	- Action Contractual Services	x	x	x	x	62000	71400	UNDP	45,000
	- Action: Grants: equipment, etc.	x	x			62000	72400	UNDP	100,000
	- Action: Organizing Inception Workshop and Capacity	x		x		62000	75700	UNDP	3,000
	- Action: Travel	x		x		62000	71600	UNDP	16,000
	<b>1.2. Activity Result: Design, construction and operation of distributed small-scale rooftop solar PV power systems (total 5 MW) for town services in Bytti.</b>								
	- action: recruitment of international consultant to design (1) sourcing of local mounting structures, security			x	x	62000	71200	UNDP	30,000
	- Action: Organizing Training Workshop				x	62000	75700	UNDP	1,500
	- Action: Travel				x	62000	71600	UNDP	15,000
<b>Baseline 1: none</b> Target: Installation and operation of 5 MW of distributed, grid-connected PV at Bytti.	<b>1.3. Activity Result: Monitoring data for operational aspects, including power production, distribution and domestic use of solar power supply, to allow performance evaluation.</b>								
	- Action Recruitment of Int'l consultant to support to purchase (1) equipment for monitoring of PV output, (2)					62000	71200	UNDP	
	- Action: Organizing Training and Workshop					62000	75700	UNDP	
	- Action: Travel					62000	71600	UNDP	
	<b>1.4. Activity Result: Selection of sites around Iraq for on- and off-grid utility scale PV plants as a model for IPPs and utility solar power.</b>								
	- Action Recruitment of Int'l consultant to assess (1) solar resource for the proposed sites using ground-based and					62000	71200	UNDP	
	- Action: Organizing Training and Workshop					62000	75700	UNDP	
	- Action: Travel					62000	71600	UNDP	
<b>Indicators: Megawatts of solar PV installed.</b>	<b>1.5 Activity Result: Finalization of tender documents and component specifications.</b>								
	- Action Recruitment of Int'l consultant to assess (1) commercial technologies for utility-scale PV power					62000	71200	UNDP	
	- Action: Organizing Training and Workshop					62000	75700	UNDP	
	- Action: Travel					62000	71600	UNDP	



Expected Outputs	Outputs/Activities	2015				Fund Source	Budget Description	Responsible Party	Amount (USD)
		Q1	Q2	Q3	Q4				
<i>and baseline, associated indicators and annual targets</i>	<i>List activity results and associated actions</i>								
	<b>1.6 Activity Result: Monitoring data for operational aspects, power production, distribution and grid behaviour.</b>								
	-Action Recruitment of Int'l consultant to support (1) installation of monitoring equipment at plant location to					62000	71200	UNDP	
	- Action: Organizing Training and Workshop					62000	75700	UNDP	
	- Action: Travel					62000	71600	UNDP	
<b>Total of Output 1</b>								<b>275,500</b>	
<b>Objective/Outcome 2</b> Encouragement of investments in solar power technology in Iraq and consumer uptake of solar appliances through policy reform and financial incentives.	<b>2.1. Activity Result: Approved and enforced revised policies and regulations, and new financial incentives, to encourage solar power industry development (private sector) and consumer uptake, including removal of import tariffs on components; introduction of subsidies and tax credits to promote investment in, and installation of, solar units; and clarification of IPP policies, with inducements to accelerate solar PV power plant development throughout Iraq.</b>								
	- Action: Recruitment of Project Associate	x	x	x	x	62000	71400	UNDP	50,000
	-Action Contractual Services					62000	71400	UNDP	
	-Action Recruitment of Int'l consultant to develop (1) regulations and laws allowing generation and sale of	x	x	x	x	62000	71200	UNDP	75,000
	-Action Recruitment of national consultant to support the development of the RE policy	x	x	x	x	62000	71300	UNDP	25,000
	- Action: Organizing Training/Workshop		x			62000	75700	UNDP	5,500
	- Action: Travel		x			62000	71600	UNDP	17,500
<b>Baseline 2:</b> There have been early-stage discussions between MoE and UNDP on net-metering. There have been no concrete steps or commitments.	<b>2.2. Activity Result: Examination of inter-connections between distributed power producers and the grid, design of a feed-in tariff and net-metering options, and support to the Government to implement the feed-in tariff and/or net-metering scheme; evaluation of tendering schemes where appropriate.</b>								
	-Action Recruitment of int'l consultant to design (1) a feed-in tariff for renewable energy IPPs with appropriate pricing	x	x	x	x	62000	71200	UNDP	75,000
	-Action Recruitment of national consultant to support in field to design a feed in tariff and net metering options	x	x	x	x	62000	71300	UNDP	25,000
	- Action: Organizing Training/Workshop				x	62000	75700	UNDP	5,500
	- Action: Travel				x	62000	71600	UNDP	17,500
	<b>2.3. Activity Result: Development of a renewable energy database (solar map) containing site-specific data on RE potential to facilitate investment decisions.</b>								
	-Action Recruitment of int'l consultant to support (1)					62000	71200	UNDP	
	- Action: Organizing Training Workshop					62000	75700	UNDP	
	- Action: Travel					62000	71600	UNDP	
<b>Indicators:</b> Existence of RE policies and laws encouraging deployment. Existence of a clear set of regulations and technical and regulatory requirements for connecting to the grid. Volume of investments mobilised for solar PV power.	<b>2.4. Activity Result: Development of the feed-in tariff as a policy NAMA, with corresponding baseline, MRV and institutional systems developed.</b>								
	-Action Recruitment of int'l consultant to develop (1) a set of guidelines to establish national NAMA eligibility and design criteria, support (2) the Iraqi DNA capacity as the national coordinating institution and quality assurer for NAMAs, establish (3) a baseline for calculating emission					62000	71200	UNDP	
<b>Targets:</b> Development and implementation of a grid code for	- Action: Organizing Training Workshop					62000	75700	UNDP	

Expected Outputs <i>and baseline, associated indicators and annual targets</i>	Outputs/Activities <i>List activity results and associated actions</i>	2015				Fund Source	Budget Description	Responsible Party	Amount (USD)
		Q1	Q2	Q3	Q4				
<i>distribution and transmission (for small-</i>	<i>- Action: Travel</i>					62000	71600	UNDP	



Expected Outputs and baseline, associated indicators and annual targets	Outputs/Activities List activity results and associated actions	2015				Fund Source	Budget Description	Responsible Party	Amount (USD)
		Q1	Q2	Q3	Q4				
<b>Total of Output 2</b>									
296,000									
<b>Objective/ Outcome 3</b>	<b>3.1. Activity Result: Solar power market demand/industry response strategy developed for Iraq, informed by case-studies from other countries with developed solar power industries, domestic market analysis, and clarification of Iraqi private sector opportunities for distributed solar PV power production. Iraq private sector and Government agencies exposed to all aspects of the industry (technology development, supply, servicing, financing).</b>								
Facilitation of private sector capacity for technology development, innovation and servicing in the solar power industry, through technical capacity building and domestic market analysis.	- Action: Contractual Service					62000	61300	UNDP	
	-Action Recruitment of int'l consultant to develop (1) a database of solar market participants (installers).					62000	71200	UNDP	
	- Action: Organizing study tours (travel)				x	62000	75700	UNDP	
								65,000	
	<b>3.2. Activity Result: Development and delivery of certified technical training on solar PV technologies (hybridization, supply, service) for emerging private sector companies.</b>								
	-Action Recruitment of Int'l consultant to develop (1) training materials and twin-track academic and vocational					62000	71200	UNDP	
	-Action Recruitment of national consultant to support in field to develop certified technical modules					62000	71300	UNDP	
	- Action: Organizing Training Workshop					62000	75700	UNDP	
	- Action: Travel					62000	71600	UNDP	
	<b>3.3. Activity Result: Development and delivery of dissemination sessions on future IPP involvement in the electricity supply network, including relationships with technology firms and Government agencies, feed-in tariffs, and net-metering options.</b>								
	-Action Recruitment of Int'l consultant: to support (1) development of a set of manuals and knowledge					62000	71200	UNDP	
	- Action: Organizing Training Workshop					62000	75700	UNDP	
	-Action: Travel					62000	71600	UNDP	
<b>Baseline 3: No effective capacity building exists for the industry. There are no records of PV market prices, and no targets: Solar power market demand/industry response strategy developed for Iraq, informed by case</b>									
<b>Total of Output 3</b>									
65,000									
<b>General Management Service</b>	<b>1. Activity Result: Support the implementation of the project</b>								
	- Action recruitment of int'l consultant	x	x	x	x	4000	71300	UNDP	
								46,948	
	-Action IT equipment	x	x	x	x	62000	72800	UNDP	
	-Action Misc.	x	x	x	x	62000	74500	UNDP	
								1,500	
								9,093	
	<b>Project Management Costs</b>								
	<b>Audit</b>					62000	74100	UNDP	
	<b>Common premisis (\$8,593)</b>					62000	73100	UNDP	
	<b>Communication 2.5%</b>	x	x	x	x	4000	73100	UNDP	
	<b>Communication 1%</b>					62000	72400	UNDP	
	<b>Evaluation 2%</b>					62000	74100	UNDP	
	<b>Security Cost 4%</b>	x	x	x	x	4000	74100	UNDP	
	<b>Security Costs 3.5%</b>	x	x	x	x	62000	74300	UNDP	
								1,278	
								22,648	

Expected Outputs <i>And baseline, associated indicators and annual targets</i>	Outputs/Activities <i>List activity results and associated actions</i>	2015				Fund Source	Budget Description	Responsible Party	Amount (USD)
		Q1	Q2	Q3	Q4				
								83,241	
<b>Total Project Budget</b>								<b>\$719,741</b>	

Project Manager: **M.D. FARUK UL ISLAM** *[Signature]*  
 Signature & Date

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 Signature & Date  
 8/11/2015

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