



# REQUEST FOR CEO ENDORSEMENT

PROJECT TYPE: FULL PROJECT

TYPE OF TRUST FUND:GEFTF

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## PART I: PROJECT INFORMATION

Project Title: Reducing Greenhouse Gas emissions through Community Forests and Sustainable Biomass Energy in Afghanistan			
Country(ies):	Islamic Republic of Afghanistan	GEF Project ID: <sup>1</sup>	5610
GEF Agency(ies):	FAO (select) (select)	GEF Agency Project ID:	623884
Other Executing Partner(s):	National Environmental Protection Authority (NEPA), Ministry Of Agriculture, Irrigation And Livestock (MAIL), Ministry Of Energy And Water (MEW) And The Ministry Of Rural Reconstruction And Development (MRRD), with Executional Support From BORDA, MADERA, And United Nations Environmental Programme (UNEP)	Submission Date:	27 July 2015
GEF Focal Area (s):	Climate Change	Project Duration(Months)	36
Name of Parent Program (if applicable):		Project Agency Fee (\$):	164,840
➤ For SFM/REDD+ <input type="checkbox"/> ➤ For SGP <input type="checkbox"/> ➤ For PPP <input type="checkbox"/>			

## A. FOCAL AREA STRATEGY FRAMEWORK<sup>2</sup>

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Grant Amount (\$)	Cofinancing (\$)
CCM-1 (select)	CCM-1 Promote the demonstration, deployment, and transfer of innovative low-carbon technologie	CCM-1.a Technologies successfully demonstrated, deployed, and transferred CCM-1.b Enabling policy environment and mechanisms created for technology transfer CCM-1.c GHG emissions avoided	GEF TF	676,063	2,289,086
CCM-3 (select)	CCM-3 Promote investment in renewable energy technologies	CCM-3.a Appropriate policy, legal and regulatory frameworks adopted and enforced CCM-3.c GHG emissions avoided	GEF TF	441,745	1,388,163
CCM-5 (select)	CCM-5 Promote conservation and enhancement of carbon stocks through sustainable	CCM-5.b Restoration and enhancement of carbon stocks in forests and non-forest lands	GEF TF	617,352	1,133,865

<sup>1</sup> Project ID number will be assigned by GEFSEC.

<sup>2</sup> Refer to the Focal Area Results Framework and LDCF/SCCF Framework when completing Table A.

	management of land use, land use change, and forestry	CCM-5.c GHG emissions avoided and carbon sequestered			
<b>Total project costs</b>				1,735,160	4,811,114

## B. PROJECT FRAMEWORK

**Project Objective:** To reduce GHG emissions by promoting community-based management of forests and natural resources, while removing barriers to sustainable biomass energy and laying the groundwork for climate change mitigation in Afghanistan.

- 17,358 tCO<sub>2</sub>e GHG emissions resulting from avoided deforestation/degradation,
- 7,433 tCO<sub>2</sub>e GHG sequestered through forest enrichment and establishment of woodlots (24,000 ha).
- ~10,298 tCO<sub>2</sub>e GHG emission reduced through adoption of improved Sustainable Biomass Energy Systems

Project Components/ Programs	Financing Type <sup>3</sup>	Project Outcomes	Project Outputs	Trust Fund	(in \$)	
					GEF Project Financing	Confirmed Co-financing
Component 1: Strengthening the national policy environment to support sustainable biomass energy systems (based on CBNRM), laying the ground work for investment promotion and future access to carbon markets.	TA	<p>1. The CBNRM approach and sustainable biomass energy systems have been mainstreamed into national policies and frameworks for renewable energy and forestry.</p> <ul style="list-style-type: none"> <li>• <b>At least three</b> strategic/planning documents - including the revised Renewable Energy Strategy and Action Plan; the National Forest Management Plan; and the Renewable Rural Energy Strategy - promote integrated SBES and CBNRM planning</li> <li>• A roadmap for sustainable biomass energy systems in alignment with CBNRM principles that <b>includes</b> establishment of milestones and deliverables, to promote investment in CBNRM and SBES.</li> <li>• cross-sectoral national-level working group on sustainable biomass energy institutionalised within government and generating annual strategic recommendations to support implementation of integrated SBES and CBNRM.</li> <li>• At least: i) <b>two (2)</b> technical reports and <b>two (2)</b> popular/grey literature article on SBES generated from Component 3; ii) <b>two (2)</b></li> </ul>	<p>Output 1.1 National policies and sectoral strategies promote integrated CBNRM and sustainable use of biomass energy (SBES).</p> <p>Output 1.2 A cross-sectoral national-level working group on sustainable biomass energy is established and operational.</p> <p>Output 1.3 A roadmap developed for sustainable biomass energy systems in alignment with CBNRM principles, including investment promotion and access to carbon markets, in line with the National Forest Plan and National Priority Programme on Natural Resource Management and Conservation.</p>	GEF TF	154,944	648,914

<sup>3</sup> Financing type can be either investment or technical assistance.

		policy briefs generated from Output 1.1.1; and iii) two (2) training protocols for selecting, operating and maintaining SBESs; publicly available through the biomass energy information system.	Output 1.4 A biomass energy information system that collects, analyses, and disseminates data on resources and technologies for sustainable energy production and utilisation, as basis for promotion of SBES in alignment with CBNRM principles.			
Component 2: Developing community-based natural resource management (CBNRM) plans and establishing community forests in 2 project areas.	TA	<p>Outcome 2.1 The CBNRM approach has been incorporated in targeted areas at a district scale.</p> <ul style="list-style-type: none"> <li>At least thirty (30) government technical extension staff in pilot provinces, including at least five (5) each from MAIL, MRRD, NEPA, trained on CBNRM, principles of SFM, and promotion of SBES.</li> <li>Representatives of at least twenty (20) CDCs are trained on establishment of FMCs and implementation of CBNRM plans in each of two (2) pilot districts.</li> <li>CBNRM plans, including establishment of FMCs and forest use rights, are developed in two (2) pilot districts, and approved at CDC, district, provincial and central (MAIL) levels.</li> <li>A total of at least ten (10) FMCs are actively implementing CBNRM plans with the support of MAIL and NEPA extension officers.</li> </ul>	<p>Output 2.1 At least thirty (30) representatives of provincial and district-level government in pilot areas trained on CBNRM and SFM.</p> <p>Output 2.2 Representatives of at least twenty (20) CDCs, in at least two (2) pilot areas, trained on CBNRM and SFM principles.</p> <p>Output 2.3 Community-based natural resource management plans and community forest plans designed in 2 pilot areas in Parwan and Nangarhar Provinces, promoting sustainable biomass investments through sustainable forest management (SFM) principles and methods and providing additional livelihood benefits.</p> <p>Output 2.4 Community forest and natural-resource management plans (see 2.1.3)</p>	GEF TF	617,352	1,133,865

			implemented in at least 24,000 hectares in 2 pilot areas, increasing sustainable wood supply for bioenergy purposes, and enhancing local livelihoods.			
Component 3: Promoting the demonstration and deployment of sustainable biomass energy systems, with a CBNRM approach	INV	Outcome 3 Innovative and sustainable biomass energy technologies, tested and deployed in 2 pilot areas. <ul style="list-style-type: none"> <li>Two (2) updated training modules and toolkits, tailored to the specific needs and capacity of government extension staff and community members, developed and implemented.</li> <li>- A total of at least thirty (30) government technical extension staff in pilot provinces, trained on integrated planning and management of biomass energy resources, including through promotion of SBES and CBNRM.</li> </ul>	3.1 At least two sustainable biomass energy technologies (SBES) (tested and deployed in 2 pilot areas with a CBNRM approach.	GEF TF	706,519	1,915,400
			3.2 Forty (40) communities trained on the operation and maintenance of piloted SBES, as well as on practical measures to increase availability and efficiency of use of biomass.			
	TA	<ul style="list-style-type: none"> <li>- At least four (4) government technical staff trained through an international 'training of trainers' programme on bioenergy through CAS.</li> <li>- Representatives of at least forty (40) CDCs, including both men and women's groups, will benefit from activities related to awareness-raising and training on the benefits and operation of SBES.</li> <li>At least ten (10) tinmiths and ~five (5) masons are engaged and trained in manufacture and marketing of SBESs.</li> <li>At least: i) one (1) peer-reviewed scientific journal article reporting on the energy efficiency and reduced GHG emissions achieved by piloted SBES; ii) one (1) independent assessment report on SBES piloted to inform GHG</li> </ul>	3.3 Research findings and appropriate technology innovations on integrated CBNRM and SBES (see 2.1.1) for dissemination among the national and regional research networks, involved policy-makers and the general public, including through the biomass energy information system (see 1.4).			
			3.4 Specialised training conducted for at least fifteen (15) local engineers, skilled workers and entrepreneurs on the design, construction and marketing of			

		tracking; and iii) one (1) policy brief on the benefits and technical performance of SBES demonstrated.	<p>piloted SBES in each of two pilot provinces in Afghanistan.</p> <p>3.5 At least fifteen (15) representatives of provincial planning and governmental agencies trained on planning, promotion and implementation of sustainable biomass energy projects, in each of two pilot provinces in Afghanistan.</p>			
Component 4: Awareness raising and monitoring and evaluation.	TA	<p>Outcome 4 Increased national awareness and promotion of SBES and CBNRM</p> <ul style="list-style-type: none"> <li>Awareness-raising activities implemented within at least twenty (20) CDCs in pilot districts to promote adoption of SBES and CBNRM.</li> <li>At least two (2) popular or 'grey literature' articles to promote SBES disseminated through government media.</li> <li>At least two (2) "best practices" reports and two (2) policy briefs presented to NPIU and PSC to guide on best practices and lessons learned as a result of implementation.</li> <li>Terminal review report on project implementation including:</li> <li>total estimated GHG emissions reduced by project;</li> <li>summary adaptive management approaches introduced during the implementation period.</li> </ul>	<p>4.1 Awareness raising and communication strategy designed, developed, and delivered in pilot sites and at national level</p> <p>4.2 Project-related "Best Practices" and "Lessons Learned" published.</p> <p>4.3 Project monitoring system operating providing systematic information on progress in meeting project outcome and output targets.</p> <p>4.4 Final evaluation conducted.</p>	GEF TF	100,862	480,511
Subtotal					1,579,676	4,178,690
Project Management Cost (PMC) <sup>4</sup>				GEFTF	155,484	632,424
Total project costs					1,735,160	4,811,114

### C. SOURCES OF CONFIRMED COFINANCING FOR THE PROJECT BY SOURCE AND BY NAME (\$)

Please include letters confirming cofinancing for the project with this form

<sup>4</sup> For GEF Project Financing up to \$2 million, PMC could be up to 10% of the subtotal; above \$2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

Sources of Co-financing	Name of Co-financier (source)	Type of Co-financing	Co-financing Amount (\$)
Implementing agency	FAO	In-kind	1 000 000
Local government	BORDA	In-kind	450 000
Local government	MADERA	In-kind	161 114
Private sector	MRRD	In-kind	1 200 000
Local government	MEW	In-kind	500 000
Private sector	MAIL	In-kind	1 000 000
Private sector	NEPA	In-kind	500 000
<b>Total Co-financing</b>			<b>4,811,114</b>

**D. TRUST FUND RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY<sup>1</sup>**

GEF Agency	Trust Fund	Country Name/Global	Focal Area	Programming of Funds	(in \$)		
					GEF Project Financing (a)	Agency Fee <sup>a)</sup> (b) <sup>2</sup>	Total (c)=a+b
FAO	GEF TF	Islamic Republic of Afghanistan	Climate change		1,735,160	164,840	1,900,000
<b>Total Grant Resources</b>					1,735,160	164,840	1,900,000

<sup>1</sup> In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table. PMC amount from Table B should be included proportionately to the focal area amount in this table.

<sup>2</sup> Indicate fees related to this project.

**F. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:**

Component	Grant Amount (\$)	Co-financing (\$)	Project Total (\$)
Local consultants	236 537	625 928	862 465
International consultants	175 000	463 087	638 087

**G. DOES THE PROJECT INCLUDE A "NON-GRANT" INSTRUMENT? (Select)**

(If non-grant instruments are used, provide in Annex D an indicative calendar of expected reflows to your Agency and to the GEF/LDCF/SCCF/NPIF Trust Fund).

**PART II: PROJECT JUSTIFICATION**

**A. DESCRIBE ANY CHANGES IN ALIGNMENT WITH THE PROJECT DESIGN OF THE ORIGINAL PIF<sup>5</sup>**

**A.1 National strategies and plans** or reports and assessments under relevant conventions, if applicable, i.e. N NBSAPs, national communications, TNAs, NCSA, NIPs, PRSPs, NPFE, Biennial Update Reports, etc.

No change

**A.2. GEF focal area and/or fund(s) strategies, eligibility criteria and priorities.**

No change

**A.3 The GEF Agency's comparative advantage:**

No change

<sup>5</sup> For questions A.1 –A.7 in Part II, if there are no changes since PIF and if not specifically requested in the review sheet at PIF stage, then no need to respond, please enter "NA" after the respective question.

#### **A.4. The baseline project and the problem that it seeks to address:**

Afghanistan is located in south-central Asia and is characterised by a heterogeneous landscape, varying widely in altitude, rainfall and ecosystems. Despite the variability between the country's eight bio-geographical zones and 15 ecoregions<sup>6</sup>, a common characteristic within all of Afghanistan's 34 provinces is the fundamental importance of ecosystems and natural resources to the livelihoods of ordinary households. As the country ranked 169 out of 188 on the UN's Human Development Index in 2014, natural resource use, in the form of activities such as agriculture, forestry, pastoralism and artisanal mining – contributes up to 80% of the livelihood basis for the people of Afghanistan<sup>7</sup>. Although these activities only contribute ~20% of gross national income, Afghanistan's natural resource base contributes to household employment and income for ~85% of the population<sup>8</sup>.

However, as a result of multiple socio-economic factors, including the widespread destabilisation and destruction caused by several decades of conflict, Afghanistan has undergone considerable deforestation and ecosystem degradation over the last century. The FAO estimated that at the turn of the 20<sup>th</sup> Century, 4.5% of total land area was covered by closed canopy forest and a further 48% by open woodlands<sup>9</sup>. Yet, by 2008, just 2.6% of the country could be considered as forest or shrubs<sup>10</sup>. As a result of the above trends, Afghanistan's 'Land Use, Land Use Change and Forestry' (LULUCF) sectors are major contributors to the country's emissions of GHGs, particularly as a result of activities such as conversion of forest to other land uses and excessive burning of woodfuel to meet domestic energy needs. Afghanistan's rural population is generally characterised by low levels of socio-economic development, literacy, access to electricity and public services, such as roads and sewage systems. Consequently, rural populations have remained reliant on natural resource-based livelihoods as a means of daily survival. In the absence of supporting economic activities and infrastructure, the majority of rural populations are almost completely reliant on biomass – including firewood, charcoal and other forms of woodfuel, as well as crop residues and livestock dung – to meet domestic demands for energy. However, as a result of the sustained and accelerating exploitation of natural resources, the rate of use of natural resources (such as wood and pasture) has exceeded the replacement capacity of the ecosystems from which they have been derived. As a result, natural resources are degraded by over-use, leading to decreased productivity and household income and resulting in considerable emissions of greenhouse gases (GHGs). Finally, communities are left with no option but to continue with unsustainable natural resource management practices in a 'vicious circle' that continues to drive deforestation/degradation while aggravating the existing underlying trends of poverty and limited socio-economic conditions. Management of natural resources in rural areas is also complicated by lack of clarity or inconsistencies in land tenure and custodianship, which is sometimes exploited by influential individuals within local-level governance.

In this cycle of unsustainable resource use, poverty and conflict, it is anticipated that environmental degradation will be further exacerbated by climate change impacts. Degraded ecosystems are more vulnerable to extreme climate events such as floods, droughts and heatwaves in comparison to intact forests and rangelands which have the ability to absorb water under wet periods, store it in healthy soils and release it slowly as baseflow into streams and rivers during drier times. As the natural ecosystems are degraded, the impact of extreme events will cause a further stress on the resource base, and accelerate the negative cycle. Households are vulnerable both to effects such as reduced crop yield, but also to extreme events such as floods and landslides. The vulnerability of these communities is further exacerbated by widespread land degradation which has undermined the ecosystem services that underpin natural resource provision.

The Government of the Islamic Republic of Afghanistan (GoIRA) recognises the urgent need to prioritise socio-economic development and service delivery, particularly to impoverished rural areas. Furthermore, GoIRA has

<sup>6</sup> Biodiversity Profile of Afghanistan: An Output of the National Capacity Needs Self-Assessment for Global Environment Management (NCSA) for Afghanistan, United Nations Environment Programme, Post-Conflict and Disaster Management Branch, June 2008

<sup>7</sup> Biodiversity Profile of Afghanistan: An Output of the National Capacity Needs Self-Assessment for Global Environment Management (NCSA) for Afghanistan, United Nations Environment Programme, Post-Conflict and Disaster Management Branch, June 2008

<sup>8</sup> Afghanistan Initial National Communication to the UNFCCC, National Environmental Protection Agency of the Islamic Republic of Afghanistan, 2013

<sup>9</sup> Natural Resource Management and Peace Building in Afghanistan, United Nations Country Team in Afghanistan, United Nations Environment Programme, May 2013

<sup>10</sup> Land Cover Atlas of the Islamic Republic of Afghanistan, Food and Agricultural Organisation, May 2013

recognised the link between sustainable management of natural resources and the wellbeing of communities and has consequently undertaken to mainstream environmental considerations into all line ministries. Without an increase in livelihood productivity and opportunities in these rural areas, lasting peace will be impossible to achieve as resource stress will drive factional fighting, internal displacement and economic stagnation<sup>11</sup>. As part of the GoIRA's response, there are multiple national development priorities that address the underlying socio-economic and environmental challenges that contribute to deforestation and GHG emissions from the Agriculture, Forest and Other Land Use (AFOLU) sector.

Community-based natural resource management (CBNRM) is recognised as a potential tool to address deforestation and degradation of forests and rangelands. By decentralising the management of forests and other natural resources to communities, there is increased incentive and capacity to sustainably use these resources. Furthermore, there is increasing interest in the potential role that international carbon market mechanisms – such as financing through REDD+, the Clean Development Mechanism (CDM) and voluntary carbon markets – could contribute to supporting GoIRA's dual goals of addressing climate change and improving the management of natural resources. However, the implementation of the aforementioned concepts – such as CBNRM and forest carbon initiatives – remains relatively limited and isolated because of multiple institutional and technical barriers.

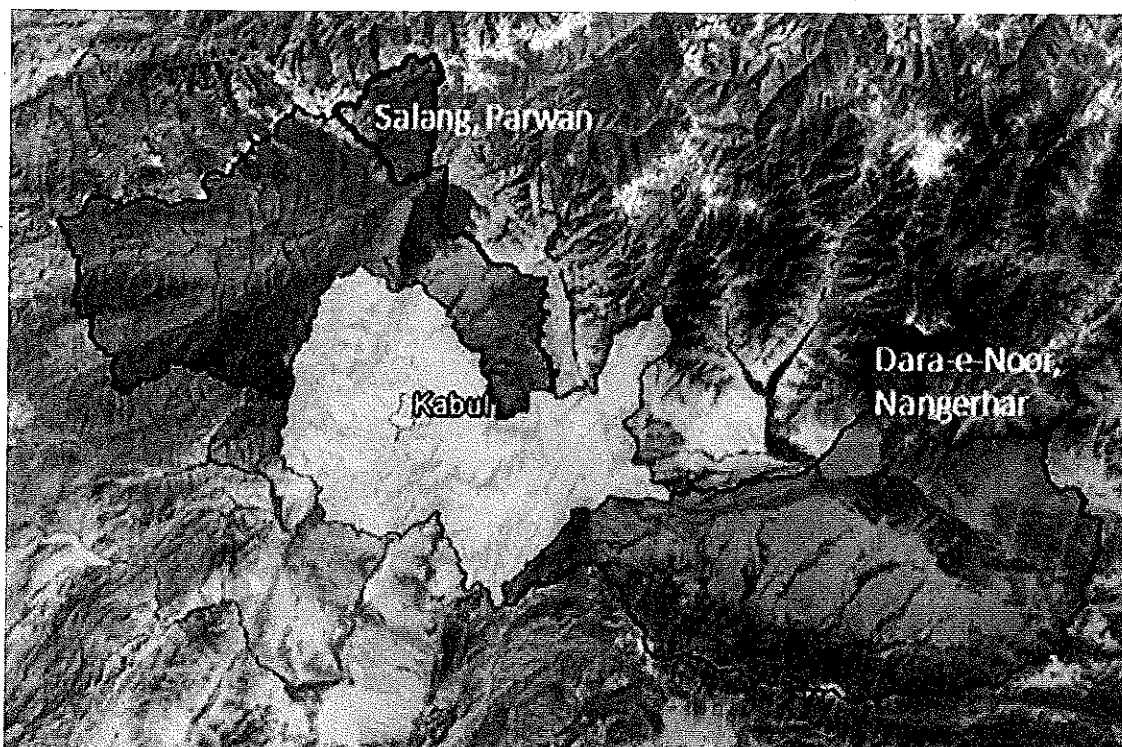
In response to the above-mentioned challenges, this proposed GEF project aims to promote and implement novel approaches to community-based forestry and natural resource management, integrated with activities to promote household adoption of efficient alternatives to traditional use of biomass energy. This GEF project will approach the challenge of mitigating climate change in Afghanistan by promoting technologies and activities that reduce GHG emissions while generating multiple economic, social and environmental benefits. Field-based demonstration activities will be supported by complementary investments in training and capacity-building, providing institutional support to guide decision-making, and ongoing research and development of successful approaches. The field-based demonstration activities will focus primarily on: i) supporting the design and implementation of community-based natural resource management/forestry; and ii) promoting and disseminating SBES as alternatives to traditional households methods for cooking and heating.

Following the elaboration of the PIF during the PPG phase, including the development of site selection criteria in participation with senior government representatives, two pilot regions were proposed for the field-based activities of the project, namely: i) Dara-e-Noor district in Nangerhar province, in the Eastern Forest Complex region; and ii) Salang district in Parwan province, in the Central Highlands region. The location of the proposed pilot districts, relative to the capital of Kabul, is depicted in Figure 1 below.

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<sup>11</sup> Natural Resource Management and Peace Building in Afghanistan, United Nations Country Team in Afghanistan, United Nations Environment Programme, May 2013





**Figure 1. Location of proposed pilot sites in Parwan and Nangerhar provinces.**

The proposed GEF project will address the threats to the globally beneficial sectors described below.

*Global Environmental Benefits (GEB) status, threats and causes*

*- Greenhouse gas (GHG) emissions*

As a result of Afghanistan's limited industrial development, the country's national GHG emissions are small relative to larger economies. Nevertheless, in 2005 total emissions were estimated at 28759 Gg CO<sub>2</sub> with no net removals<sup>12</sup>. The largest sources of GHG emissions were the sectors of agriculture (~53%) and land-use change/forestry (~33%), respectively. The energy sector accounted for ~13% of emissions, while industrial processes and waste contributed ~1% and 0.5% respectively. Consequently, the combined sector of LULUCF is by far the greatest contributor to GHG emissions. An estimated 452.25 Gg CO<sub>2</sub>e was released in 2005 from forest and other woody biomass stocks, largely attributable to conversion of forest and grassland<sup>13</sup>.

As a result of significant gaps in data to estimate historic GHG emissions, trends in GHG emission growth rates are difficult to extrapolate. At present, per capita electricity consumption is extremely low (140 kWh per capita), gross electricity supply is expected to grow from 3,531 GWh in 2011 to 23,631 GWh in 2032<sup>14</sup>. Should national government be unable to meet this increase in demand for energy, natural resources will be exposed to further exploitation as both an energy source and livelihood opportunity while lack of electrification is constrained to the development of industrial or services sectors.

*- Land use, land use change and forestry in Afghanistan*

<sup>12</sup> UNFCCC, Greenhouse Gas Inventory Data, 2014, <http://unfccc.int/di/DetailedByParty/Event.do?event=go> [Accessed 2104-12-10]

<sup>13</sup> Afghanistan Initial National Communication to the UNFCCC, National Environmental Protection Agency of the Islamic Republic of Afghanistan, 2013

<sup>14</sup> GoIRA (2013). Power Sector Master Plan. MEW.

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The land cover change data derived from Afghanistan's 2010 Land Cover Database was used to estimate the GHG emissions resulting from woody biomass removals from all woody vegetation categories in the period 1993 – 2010. These figures are based on the adoption of assumed aboveground woody biomass estimates based on IPCC Good Practice Guidelines. The justification for these assumptions and the approach to assessing GHG emissions from land use change is detailed further in **Appendix 8** of the Project Document. A summary of land use change and resultant GHG emissions from woody biomass removal is presented in Table 1 below.

**Table 1. Summarised land use change in woody vegetation categories in Afghanistan.**

LCCS class	Aboveground woody biomass (tonnes/ha) <sup>15, 16</sup>	Woody biomass (tonnes)			
		1993	2010	Total change	Annual change
Trees, dense	50	47,079,000	3,980,700	-43,098,300	-2,535,194
Trees, open	14	3,478,972	12,647,950	9,168,978	539,352
Trees closed-open, undifferentiated	14		3,265,528	3,265,528	192,090
Shrubland, degenerated forest	7.8	908,684	3,724,227	2,815,543	165,620
Rangeland	4.5	131,295,299	136,237,563	4,942,265	290,721
Total	/	182,761,955	159,855,968	-22,905,987	-1,347,411

It is estimated that in the period 1993-2010 a total of ~22.9 million tonnes of woody biomass were lost as a result of vegetation conversion, which can be largely attributable to deforestation and degradation. This is equivalent to an annual loss ~1.4 million tonnes of woody biomass per year. Assuming that woody biomass is ~50% C by mass, and that woody biomass is converted to CO<sub>2</sub> as the main GHG, these figures indicate that **annual emission of GHGs from removal of woody biomass is equivalent to ~2.48 million tonnes of CO<sub>2</sub>equivalent per year.**

*- GHG emissions resulting from woody biomass removal from forests and rangelands in pilot project areas*

A brief summary of the rate of land use change and resultant GHG emissions for the two pilot areas in Nangerhar and Parwan provinces are provided below. These figures are based on comparisons of land cover data in the years 1993 and 2010 and have assumed figures for woody biomass content based on IPCC Good Practices Guidelines. Please consult **Appendix 8** of the Project Document for further analysis.

The change in total woody biomass carbon in the major wooded vegetation categories between 1993 and 2010 in Nangerhar are summarised in Table 2 below.

**Table 2. Summarised changes in total woody biomass carbon in Nangerhar between 1993 and 2010.**

LCCS class	Aboveground woody biomass (tonnes/ha)	Biomass (tonnes)			
		1993	2010	Total change	Annual change
Trees, dense	50	4,155,950	118,732	-4,037,219	-237,483
Trees, open	14	169,568	798,092	628,524	36,972
Shrubland	7.8	74,825	31,837	-42,988	-2,529
Total		4,400,343	948,661	-3,451,682	-203,040

The above results indicate that the total removal of woody biomass vegetation in the period 1993 – 2010 resulted in the loss of ~3,4562 kilotonnes of wood, equivalent to 203 kilotonnes of woody biomass per annum. **In terms of equivalent GHG emissions, this trend in land use caused emission of ~373,000 tonnes CO<sub>2</sub>equivalent per annum from Nangerhar province<sup>17</sup>.**

<sup>15</sup> IPCC Good Practice Guidelines for LULUCF. Chapter 3: LUCF Sector Good Practice Guidance, Appendix 3A.1 Biomass Default Tables for Section 3.2 Forest Land

<sup>16</sup> Ruesch, Aaron, and Holly K. Gibbs. 2008. New IPCC Tier-1 Global Biomass Carbon Map For the Year 2000. Available online from the Carbon Dioxide Information Analysis Center [<http://cdiac.ornl.gov/>], Oak Ridge National Laboratory, Oak Ridge, Tennessee

<sup>17</sup> Assuming biomass carbon content of ~50% and total conversion to CO<sub>2</sub> as opposed to other GHGs.

The change in total woody biomass carbon in the major wooded vegetation categories between 1993 and 2010 in Parwan are summarised in Table 3 below.

**Table 3. Summarised changes in total woody biomass carbon in Parwan between 1993 and 2010.**

LCCS class	Aboveground woody biomass (tonnes/ha)	Biomass (tonnes)			
		1993	2010	Total change	Annual change
Trees, open	14	8,470	1,066	-7,404	-436
Shrubland	7.8	0	6,520	6,520	384
Rangeland	4.5	2,980,643	1,839,335	-1,141,307	-67,136
Total		2,989,113	1,846,922	-1,142,191	-67,188

The above results indicate that the total removal of woody biomass vegetation in the period 1993 – 2010 resulted in the loss of ~1,142 kilotonnes of wood, equivalent to 67 kilotonnes of woody biomass per annum. **In terms of equivalent GHG emissions, this trend in land use caused emission of ~123,000 tonnes CO<sub>2</sub> equivalent per annum in Parwan province<sup>18</sup>.**

- *Emission of GHGs resulting from household use of biomass fuels in the proposed pilot sites*  
(detailed further in Appendix 7 & 9 of the Project Document)

One of the most significant impacts of the prolonged period of conflict is the damage and destruction of key infrastructure. In consequence, many rural communities are likely to remain relatively inaccessible and without access to public services and electrification in the near future. Biomass is still the dominant fuel source in both urban and rural Afghanistan, where it is estimated that 36% of the urban population and ~97% of the rural population are totally reliant on solid biomass fuels<sup>19</sup>. It was estimated that in 2011, only ~28% of the population was able to access the national grid, and then only intermittently<sup>20</sup>. Rural areas do make use of local waste, solar PV panels, batteries, coal and kerosene but only on a limited scale. Parabolic solar cookers, widely used in energy scarce areas across the region, were banned under the Taliban regime because of their resemblance to satellite dishes and have had limited uptake since. Numerous development agencies are implementing initiatives that distribute renewable or alternative energy sources. However, in isolated and remote areas, the majority of the population relies on woodfuel as their primary energy source for heating, lighting and cooking. Traditional cooking methods are not particularly fuel-efficient and are generally undertaken using multi-purpose systems that provide heat for cooking, household heat and boiling water. Therefore, traditional stoves and use of biomass energy results in significant energy loss and emission of GHGs.

The proposed pilot provinces of Nangerhar and Parwan are described in extensive detail in Appendices 8 & 9 of the Project Document, which includes demographic profiles. Furthermore, these appendices include detailed assessments of GHG emissions resulting from: i) land use, land use change and forestry; and ii) household consumption of biomass fuels; in Appendix 8 & 9, respectively. A brief summary of the rate of biomass fuel consumption and resultant GHG emissions by households in the two pilot areas are provided below in Table 4 – 7. These figures are derived from reported household consumption of woody biomass during interviews with community members undertaken in the provincial consultation phase of the PPG. Please consult **Appendix 9** for further analysis.

<sup>18</sup> Ibid.

<sup>19</sup> Global Alliance for Clean Cookstoves (2014).

<sup>20</sup> Afghanistan Initial National Communication to the UNFCCC, National Environmental Protection Agency of the Islamic Republic of Afghanistan, 2013

*Dara-e-Noor, Nangerhar province*

**Table 4. Seasonal household biomass consumption.**

Fuel type	Household fuel consumption rates	Unit	Annual household consumption (kg/year)
Dung	Winter consumption (kg/day)	3.5	1,276
	Winter duration (days)	152	
	Summer consumption (kg/day)	3.5	
	Summer duration (days)	213	
Firewood	Winter consumption (kg/day)	14.0	3,632
	Winter duration (days)	152	
	Summer consumption (kg/day)	7.0	
	Summer duration (days)	213	

By the estimates above, a household consumes over 1 tonne of cow dung and over 3.5 tonnes of firewood in a year. By applying the assumptions detailed previously, estimates of GHG emissions attributable to household consumption of biomass fuels can be derived (Table 5).

**Table 5. Estimated GHG emissions attributed to household consumption of biomass fuels.**

Fuel type	Annual household consumption (kg/year)	Annual per capita consumption (kg/person/year)	Annual household CO <sub>2</sub> emission (kg/year)	Annual per capita CO <sub>2</sub> emission (kg/person/year)
Dung	1,278	197	2,344	362
Firewood	3,620	559	6,642	1027
<b>Total</b>			8,986	1,389

The average per capita consumption of biomass fuel in Dara-e-Noor equates to an estimated ~1.4 tonnes CO<sub>2</sub>equivalent per annum.

*Salang, Parwan province*

**Table 6. Seasonal household biomass consumption.**

Household fuel consumption rates		Unit	Annual household consumption (kg/year)
Dung	Winter consumption (kg/day)	3.5	1,278
	Winter duration (days)	152	
	Summer consumption (kg/day)	3.5	
	Summer duration (days)	213	
Firewood	Winter consumption (kg/day)	14	3,620
	Winter duration (days)	152	
	Summer consumption (kg/day)	7	
	Summer duration (days)	213	
Brush	Winter consumption (kg/day)	3,5	1,277
	Winter duration (days)	152	
	Summer consumption (kg/day)	3,5	
	Summer duration (days)	213	
Charcoal	Winter consumption (kg/day)	2,0	2,433
	Winter duration (days)	152	
	Summer consumption (kg/day)	2,0	
	Summer duration (days)	213	

**Table 7. Estimated GHG emissions attributed to household consumption of biomass fuels.**

Fuel type	Annual household consumption (kg/year)	Annual per capita consumption (kg/person/year)	Annual household CO <sub>2</sub> emission (kg/year)	Annual per capita CO <sub>2</sub> emission (kg/person/year)
Dung	1,276	215	2,344	394
Firewood	3,620	452	6,642	830
Brush	1,278	215	2,344	394
Charcoal	2,433	304	4,465	558
<b>Total</b>			15,796	2,176

The average per capita consumption of biomass fuel in Salang equates to an estimated ~2.2 tonnes CO<sub>2</sub>equivalent per annum.

### Baseline projects

As described above, there is considerable emission of GHGs from Afghanistan's land use and domestic energy sectors, which can be attributed in large part to: i) unsustainable rates of biomass fuel use; and ii) rapid rates of deforestation and degradation from multiple land use activities in forest, woodland and rangeland areas. The project will build upon six ongoing initiatives which are addressing the underlying global environmental problems described above, including both government programmes as well as ongoing initiatives led by non-governmental organisations. The four ongoing governmental departments that are providing baseline co-financing commitments include NEPA, MAIL, MRRD and MEW. In addition, the project will benefit from the baseline investments of the NGOs, BORDA and MADERA.

**1. Afghanistan Sustainable Energy for Rural Development (ASERD)** is a joint initiative of MRRD and UNDP to implement sub-component NPP-1 ARD Cluster. ASERD will be implemented in 2015 with the initial target of providing energy services to about 110,000 households with a budget of USD 190 million over five years. MRRD is mandated to promote rural energy to alleviate poverty and improve the livelihoods of rural households. MRRD's District Development Plans (DDPs) considers rural energy as one of the priority demands of communities. The main components of ASERD will include energy supply, policy, capacity-building and piloting innovative technologies. The ASERD programme will build on the capacity and investments established by past and ongoing programmes implemented through MRRD (described further below) and will apply similar implementation modalities. The ASERD programme has been launched in 2015 with an annual operating budget of US\$400,000 from government budgets. No bilateral funding commitments have yet been finalised, however the total estimated budget for the ASERD programme is anticipated to be approximately US\$ 190,000,000 for the following Outcomes: Outcome 1: Rural Energy Services; Outcome 2: Policy and Regulation; Outcome 3: Innovative Delivery Models; Outcome 4: Capacity Development and Outreach. The FAO GEF project is particularly aligned with Outcome 1, 2 and 4 of ASERD. The baseline co-financing available to this GEF project from the ASERD programme is equivalent to an operating budget of at least US\$1,200,000 over the project implementation period.

The ASERD programme is also supported by the following two MRRD initiatives:

- The **National Area-Based Development Programme (NABDP)**, also described previously, is a large-scale national rural development initiative and a permanent programme of the MRRD. Operating through seven regional offices, the NABDP focuses on establishing District Development Assemblies (DDAs) and training them in good governance practice and infrastructure project planning and implementation skills. This then promotes service delivery and livelihood diversification through the improvements in the capacity of district-level governance and infrastructure. The principle focus of the NABDP is on: i) developing local capacity and institution-building for governance by district- and village-level structures; and ii) developing productive rural infrastructure such as transport, energy and agricultural facilities. Two of the cross-cutting issues of the NABDP are natural resource management and energy for rural development. In alignment with national priorities for agricultural and rural development strategy, the objective of the NABDP is to function as an economic regeneration programme with a focus on the development of productive rural infrastructure across Afghanistan. Based upon the third pillar of the ANDS (Social and Economic Development), NABDP addresses two thematic areas: i) institutions strengthened at the district level to independently address priority

local needs; and ii) rural poor have improved access to key services. NABDP is also aligned with the National Priority Programme (NPP) Four: "Strengthening Local Institutions" and NPP One: "National Water and Natural Resources Development" (both under the Agriculture and Rural Development Cluster).

The most recent phase of the NABDP, Phase II (2009 – 2014), was facilitated by UNDP with a budget of ~US\$295 million funded by nine European countries. Of this amount, \$4 million was allocated for activities in the priority provinces in which the GEF Project will be operating, including the development of renewable energy under the Energy for Rural Development in Afghanistan (ERDA) sub-project. To date, the NABDP has established 388 DDAs in 34 provinces, of which 293 DDAs in 33 provinces received Grant-in-Aid, including organisational and physical capacity supports. With respect to the proposed pilot provinces for this GEF project, the NABDP has completed 236 projects in Nangarhar, costing US\$13,844,471, creating 437,510 labour days, and benefiting 1,552,415 people. There are a further 20 ongoing projects in the province, with a combined budget of US\$1,854,878, expected to generate a further 67,852 labour days and benefit 176,599 people. The NABDP has completed 49 projects in Parwan, costing US\$3,862,300, creating 125,337 labour days, and benefiting 401,022 people. There are a further 14 ongoing projects in the province, with a combined budget of US\$1,157,103, expected to generate a further 34,818 labour days and benefiting 89,361 people.

The NABDP supports sub-national governance and resource management of all rural sectors by supporting the establishment and building the capacity of DDAs. At present, the scope of activities undertaken by communities under the NABDP includes activities related to renewable energy as well as natural resource management. Consequently, the structures and capacity established by the NABDP provides a platform for promoting improved natural resource government and use of biomass fuels through communities. However, the focus of NABDP on renewable energy-related projects, through the ERDA programme, mainly emphasises technologies such as solar and hydropower. Although some biogas projects have been undertaken in the past, there are relatively few examples of biomass energy-related initiatives undertaken through the NABDP. With respect to natural resource management, the majority of activities selected by communities tend to focus either on agriculture-related interventions or alternatively disaster risk reduction through NRM such as revegetation of landslide-prone areas. Consequently, there are strong existing skills and capacity within MRRD technical staff and communities trained through the NABDP, however there is relatively little practical experience or awareness of the approaches that will be promoted through this GEF project (e.g. CBNRM, SBES). GEF investments will support MRRD to include planning and management of natural resources and household access to energy within the ongoing activities of rural development initiatives. Furthermore the capacity of communities participating in NABDP to plan and implement related initiatives within ongoing local development planning will result in sustained environmental and social benefits as well as a net reduction of GHG emissions from participating communities.

- The **National Solidarity Programme (NSP)** was established to support Afghan communities to identify, plan, manage and monitor their own development projects through the establishment and training of CDCs. The NSP provides a block grant to each community with an established CDC and a detailed CDP, which is utilised for community-prioritised infrastructure sub-projects. The block grant is disbursed in tranches into bank accounts owned and operated by the CDC on behalf of the community<sup>21</sup>. By September 2015, the NSP aims to have established ~39,056 CDCs and provided them with the first round of block grants. Furthermore, 12,000 selected CDCs will receive a second round of block grants<sup>22</sup>. To date, 605 CDCs have been established in Nangarhar Province, of which ~59 have been established in the Dara-e-Noor District<sup>23</sup>. In Parwan, there are 505 CDCs, of which 44 are found in Salang District<sup>24</sup>.

<sup>21</sup> NSP Basic Introduction. 2014. Available at: <http://www.nspafghanistan.org/default.aspx?sel=109>. Accessed on 1 December 2014.

<sup>22</sup> NSP Basic Introduction. 2014. Available at: <http://www.nspafghanistan.org/default.aspx?sel=109>. Accessed on 1 December 2014.

<sup>23</sup> UNDP/MRRD. 2012. Summary of district development plan: Dara-e-Noor District, Nangarhar Province. Available at: <http://www.mrrd-nabdp.org/attachments/article/399/Dara-e-Noor%20Summary%20of%20District%20Development%20Plan.pdf>. Accessed on 1 December 2014.

<sup>24</sup> NABDP Parwan Provincial Profile 2012. Available at: [www.mrrd-nabdp.org/attachments/article/249/Parwan Provincial Profile.pdf](http://www.mrrd-nabdp.org/attachments/article/249/Parwan%20Provincial%20Profile.pdf). Accessed on 01 December 2014

Another role of the NSP is to link CDCs to appropriate government agencies, NGOs, and donors to improve access to services and resources<sup>25</sup>. The NSP has contracted over 30 facilitating partners (FPs) to support the communities in NSP field implementation. The roles of the FPs include the establishment and capacity building of the CDCs, and the oversight, monitoring and technical assistance in the planning and implementation of the communities' subprojects financed by the NSP block grants<sup>26</sup>.

The total NSP budget for the period from May 2003 to September 2015 (not including community contributions) amounted to US\$2.5 billion. The total expenditure as of August 2014 was US\$2.04 billion, divided into the following core components<sup>27</sup>:

- Component 1 – Establishment and capacity building of CDCs (i.e. all FP costs): US\$339 million (16.63%);
- Component 2 – Community grants for economic and social development (all block grant costs): US\$1.51 billion (74.23 %);
- Component 3 – Project implementation support (all non-block grant and non-FP costs): US\$186 million (9.14 %).

2. **The National Environmental Protection Agency (NEPA)** of the Government of the Islamic Republic of Afghanistan is the primary agency mandated with the sustainable management of Afghanistan's environment under Article 15 of the national Constitution and Environment Law. NEPA is engaged in the development and implementation of national responses to diverse environmental and social issues including natural resource management, air quality, and climate change. The objectives of NEPA's ongoing activities related to promotion of sustainable natural resource management through field-based activities includes: i) community-based management of forests and natural resources in two pilot provinces; and ii) demonstration of appropriate technologies and approaches for efficient use of biomass fuel in domestic households. Furthermore, NEPA is the agency mandated with GoIRA's response to climate change and in consequence this agency is particularly relevant to the objective of reducing greenhouse gas (GHG) emissions from the sectors of land use change and domestic energy, respectively. These activities, combined with the agency's ongoing efforts to increase public awareness on the topics of environmental protection and climate change, provide a foundation of experience and skill that will support the implementation of the GEF project. NEPA will support the GEF project with a commitment of in-kind baseline co-finance support of approximately US\$500,000 over the project implementation period, derived from NEPA's operational budget.

3. The Ministry of Agriculture, Irrigation and Livestock (MAIL) is mandated with the management of Afghanistan's productive rural sectors and natural resources such as forests and rangelands. MAIL's activities are guided by the National Priority Programmes the Agriculture and Rural Development Cluster, such as the **National Water and Natural Resources Development Program (NWNRD)**. The NWNRD is one of the four NPPs under Agriculture and Rural Development Cluster (ARD). The goal of NWNRD program is to ensure the effective management and use of water and other natural resources under the sub-components of: i) Water Resources and Irrigation Development; and ii) Environmental Management and Rural Energy. Under the national Forest Law, MAIL is responsible for the management of Afghanistan's forests unless management rights are formally decentralised to a democratic community-based structure such as a Forest User Association. In the latter respect, the responsibilities of MAIL include supporting the design and implementation of natural resource/forest management plans in participation with community-based Forest User Associations. However, both within ministerial technical staff and at the level of local communities, there is a lack of capacity and expertise to undertake basic activities related to management and monitoring of natural resources, and consequently the implementation of community-based forest management remains limited. The abovementioned activities and investments of MAIL will provide a foundation of capacity, expertise and community-based governance structures that will support the implementation of the FAO GEF project. MAIL will support the GEF project with in-kind baseline co-financing commitments derived from operational budget for the NWNRD programme, and will amount to approximately US\$1,000,000 over the GEF project's implementation period.

4. The Ministry of Energy and Water (MEW) is mandated with the management of Afghanistan's energy needs, including the development of policies and plans to increase energy access as well as the implementation of large-scale

<sup>25</sup> NSP Basic Introduction. 2014. Available at: <http://www.nspafghanistan.org/default.aspx?sel=109>. Accessed on 1 December 2014.

<sup>26</sup> NSP Basic Introduction. 2014. Available at: <http://www.nspafghanistan.org/default.aspx?sel=109>. Accessed on 1 December 2014.

<sup>27</sup> NSP Basic Introduction. 2014. Available at: <http://www.nspafghanistan.org/default.aspx?sel=109>. Accessed on 1 December 2014.



electrification and energy infrastructure. The main roles of MEW in developing the renewable energy sector in Afghanistan are to prepare policies, strategies, action plans and laws, create a platform for decision-making, implement renewable energy projects and help other developing agencies with security, land acquisition and licensing issues. Within MEW, the Renewable Energy Department (RED) is the department mandated with the development of electricity generation using renewable energy technologies. Within RED, the **Biomass Energy Department (BED)** was established to develop the potential of biomass energy to contribute to national renewable energy mix.

The priority activities for the BED under the Biomass Action Plan for the upcoming year commencing is likely to include:

1. Preliminary technical surveys for the installation of biogas projects (Kabul urban, rural and Nengarhar)
2. Municipality solid waste power generation in Kabul.
3. Biogas plant at RED compound
4. Proposal development for donors to implement biogas projects in Kabul and Nengarhar
5. Biomass resource maps
6. Workshops, seminars and training courses
7. Biomass department staff capacity building
8. Group projects with other RED departments such as solar, wind and hydro

It is anticipated that MEW will contribute to development of policies and strategies to strengthen the institutional environment to promote sustainable biomass energy within Component 1 of the proposed project. Furthermore MEW will assist with the identification and promotion of appropriate biomass energy technologies and potential opportunities to sustain the project's activities beyond the implementation period. MEW will benefit from financial and technical assistance, including technical capacity building of MEW staff, to promote and implement biomass energy technologies. The FAO GEF project will support the priority activities of the Biomass Action Plan (above), most directly 1), 6) and 7). The abovementioned activities and investments of MEW will provide a foundation of capacity and expertise in development of renewable energy that will support the implementation of the FAO GEF project GCP/AFG/082/GFF entitled "Reducing GHG Emissions through Community Forests and Sustainable Biomass Energy". The GEF project will support the baseline activities of MEW, particularly within the Biomass Energy Department, on activities related to: i) promotion of sustainable biomass energy in rural areas; ii) increasing the availability of information and data to support future promotion of sustainable biomass energy and natural resource management; and iii) implementation of project activities with the participation of democratic community-based governance structures in the form of DDAs and CDCs. The baseline co-financing committed by MEW's BED will amount to approximately US\$500,000 during the period of the GEF project's implementation.

5. The ongoing activities of programmes implemented by the NGO Mission d'Aide au Developpement des Economies Rurales en Afghanistan (**MADERA**) – including the **Central Highlands Rural Development Programme (CHRD)** – provide an important baseline for the investments of this GEF project. MADERA is an international organisation that has been promoting rural development in Afghanistan since 1988. The organisation has an annual budget of ~Euro 3.6 million (USD 4.4 million), which is used to implement rural development interventions to rebuild the food production capacity, improve the quality of agricultural and horticultural products, and increase the incomes of rural Afghans people. Examples of these interventions include establishing motherstock nurseries and nursery associations, distributing certified seeds, providing training in a variety of topics, supporting NSP initiatives, and implementing agroforestry activities. These agroforestry activities include reforestation and establishing forest management committees, but have been suspended since 2013 due to a lack of funding.

As part of its 2014–2017 strategic plan, MADERA aims to collaborate with complementary forestry and CBNRM projects to re-establish the agroforestry and CBNRM interventions that were suspended due to lack of funding in 2013. These include pasture management, regeneration of test plots and piloting participatory planning tools for land use, currently being tested in Wardak province.

MADERA, as a facilitating partner of the NSP, has supported 1267 CDCs to implement community projects throughout Afghanistan. It is anticipated that MADERA will work with an addition 435 CDCs in 2015. The organisation has been active in the Eastern regions of the country since 1988 and built an extensive network of community partners and stakeholders. MADERA plays a leading role in a consortium of NGOs collaborating with the Afghan National Nursery



Growers' Organisation (ANNGO) to support fruit-tree nurseries (See Appendix 13 for a list of ANNGO nurseries in Nangarhar and Parwan). In 2011, MADERA began implementing a forestry management programme integrated with livestock and farming activities, in line with the National Development Strategy adopted in 2008. The implemented activities aimed at improving the livelihoods of people while addressing deforestation and the conservation of forest resources. Besides environmental actions, income-generating activities, improved agricultural production and livestock management are also undertaken to enhance the natural resources of the region.

One of the ongoing projects of MADERA's includes the CHRDP. The CHRDP is being implemented in Bamyan and Wardak Provinces in the period 2014–2017 through MADERA and two other NGOs, Solidarités International and GERES. The programme is funded by the French Development Agency (FAD). Within this project, MADERA supports animal health service providers and implements practices for improved pasture management and livestock feeding practice activities with local communities in three districts (Behsud I and II in Wardak, and Yakawlang in Bamyan). The project concentrates on the promotion and of the communities' role and enhanced capacity in territorial protection and management. The project mainly focuses on community-based management of natural resources in relation to high-altitude pastures, irrigation and/or drinking water through the following components: i) agriculture and livestock management; ii) increased household energy availability and resilience; iii) natural resource management; and iv) capacity building.

The proposed GEF-project is well positioned to collaborate with MADERA in this sector, making use of its extensive networks and relationships with local communities and sub-national governance structures. The GEF project will add incremental benefits to MADERA's ongoing work by re-integrating community-based forestry and sustainable household energy into the NGO's scope of activities with a particular focus on mitigating against climate change and reducing net GHG emissions. The ongoing activities and investments of the MADERA programme in Afghanistan, including the CHRDP, will support the GEF project with a baseline co-financing commitment of approximately US\$116,114 over the period of the GEF project's implementation.

6. Finally, the ongoing activities of the **Bremen Overseas Research and Development Association (BORDA)**, a German NGO concerned with poverty alleviation, sustainable protection of natural resources and the strengthening of social structures. The organisation's objective is to improve the living conditions of disadvantaged communities, while keeping the environment intact, through the expansion of basic needs services. The following represent the current focus of BORDA's projects<sup>28</sup>:

- decentralised water supply in mountainous areas;
- decentralised energy supply in mountainous areas;
- decentralised wastewater management in poor communities and public institutions;
- community-based sanitation in poor urban areas; and
- decentralised solid waste management in poor, densely populated urban districts.

BORDA began working in Afghanistan in 2011, implementing the Vocational Training for Small-Scale Entrepreneurs (VTSSE) project – Delivering Sustainable Decentralised Basic Sanitation and Wastewater Management in Kabul, Kunduz, and Herat. The objective of the project was to build Afghan capacities to implement basic sanitation and decentralised wastewater treatment. The expected outcomes of the VTSSE are: i) at least 120 artisans and small-scale entrepreneurs have been trained, thereby setting up service structures for planning and constructing small wastewater treatment plants and sanitation facilities; ii) at least 3,000 people have benefited from demonstration and training projects in poor communities; and iii) project packages for decentralised wastewater treatment and basic sanitation have become a component of communal development projects and receive support from international donor agencies<sup>29</sup>.

<sup>28</sup> BORDA. 2008. Policy Paper: Dissemination of decentralised basic needs services. Available at: [http://www.borda-net.org/fileadmin/borda-net/Knowledge/General%20Docs/policy\\_paper\\_%255Ben%255D.pdf](http://www.borda-net.org/fileadmin/borda-net/Knowledge/General%20Docs/policy_paper_%255Ben%255D.pdf). Accessed on 10 December 2014.

<sup>29</sup> BORDA. 2013. Annual Report 2012/2013. Available at: [http://www.borda-net.org/fileadmin/borda-net/Knowledge/Annual%20Reports/BORDA\\_AnnRep12\\_13\\_web.pdf](http://www.borda-net.org/fileadmin/borda-net/Knowledge/Annual%20Reports/BORDA_AnnRep12_13_web.pdf). Accessed on 10 December 2014.

The total project turnover for the period 2011-2014 was ~1,002,995 Euros. After the first two project years, the following intermediate results have been achieved<sup>30</sup>:

- Four pilot sanitation projects completed, with a further two nearing completion;
- Over 100 brick-layers, 12 site managers, and 22 engineers have been trained in Kabul, Jalalabad, and Mazar-e-Sharif;
- Approximately 5,680 people have gained access to improved basic sanitation;
- Fifteen people employed producing decentralised water treatment plants; and
- Approximately 116,275 m<sup>3</sup> of water treated per day through BORDA interventions.

As part of its mandate to provide access to electricity to remote rural villages – making use of local energy sources – BORDA has implemented a number of biogas initiatives in Bamyan Province. Fifteen biogas plants were expected to be completed in the province by the end of 2014<sup>31</sup>. Furthermore, BORDA was instrumental in the establishment of Afghanistan's Biogas Consortium in October 2014. The Biogas Consortium is a partnership between organisations that aims to promote, contribute to, and learn about the sustainable development of biogas in Afghanistan. The Consortium was initiated to ensure the sustainable implementation of biogas digesters in Afghanistan, as well as to act as a knowledge hub to inform interested parties, policies and planners in best practices, socio-economic aspects and to consolidate and disseminate lessons learnt from the development of biogas in Afghanistan<sup>32</sup>. The ongoing activities and investments of the BORDA programme in Afghanistan will support the GEF project with a baseline co-financing commitment of approximately US\$450,000 over the period of the GEF project's implementation.

**A. 5. Incremental /Additional cost reasoning:** describe the incremental (GEF Trust Fund/NPIF) or additional (LDCF/SCCF) activities requested for GEF/LDCF/SCCF/NPIF financing and the associated global environmental benefits (GEF Trust Fund) or associated adaptation benefits (LDCF/SCCF) to be delivered by the project:

The GEF project will add incremental benefits to the existing baseline scenario and ongoing baseline projects by implementing multiple activities targeting the barriers and challenges described above. In particular, the proposed project's activities will focus on addressing the barriers to mitigating against climate change through sustainable, community-based management of forests and through promotion of efficient, sustainable biomass-based energy systems (SBES). The approach of the proposed project is to build on existing baseline investments in information, capacity and institutional strengthening as a foundation for demonstration of the project's activities. In particular, the existing capacity within sub-national government – in the form of DDAs, CDCs and FMCs – will provide a foundation for community-driven selection and implementation of activities. Ongoing initiatives with a focus on promoting renewable energy will provide a foundation for promotion of improved approaches and technologies for efficient use of biomass.

The GEF project will integrate climate change mitigation into the ongoing activities of baseline projects, particularly by promoting the GHG abatement potential of sustainable management of forests, rangelands and other ecosystems through community-based structures. The integration of climate change mitigation into the ongoing activities of these baseline projects will focus primarily on: i) reduced emission of GHGs, through conservation of existing ecosystem carbon stocks in community-managed forests and rangelands; ii) reduced emission of GHGs through increased efficiency of biomass use in SBES; and iii) increased sequestration of GHGs through improved management and reforestation/afforestation of community-managed forests and rangelands. These activities will be supported with multiple capacity-building and training activities at national, provincial and local level. Furthermore, the project will overcome the barriers related to accessibility and availability of data, tools and planning materials by undertaking and disseminating rigorous scientific research on the approaches and technologies demonstrated by the project. This research will support the establishment of reference-level emissions and emissions savings as a result of the project activities, which will support monitoring of this project and will provide useful information to support future related initiatives. Knowledge products generated by the project, including research as well as training tools and policy briefs, will be hosted on a publicly accessible online platform.

<sup>30</sup> BORDA. 2013. Annual Report 2012/2013. Available at: [http://www.borda-net.org/fileadmin/borda-net/Knowledge/Annual%20Reports/BORDA\\_AnnRep12\\_13\\_web.pdf](http://www.borda-net.org/fileadmin/borda-net/Knowledge/Annual%20Reports/BORDA_AnnRep12_13_web.pdf). Accessed on 10 December 2014

<sup>31</sup> Ershad, A. Pers. Comm. 09 December 2014.

<sup>32</sup> Biogas Consortium Afghanistan officially launched. 16 October 2014. Available at: <http://www.borda-afg.org/news/newsdetails/article/biogas-consortium-afghanistan-officially-launched.html>. Accessed on 10 December 2014.

**Component 1: Strengthening the national policy environment to support sustainable biomass energy systems (based on CBNRM), laying the groundwork for investment promotion and future access to carbon markets**

Without the GEF project, the limited focus of existing policies and sectoral strategies that relate to CBNRM and renewable energy, respectively to promote solar and hydropower will continue to be a barrier to promote improved practices for biomass energy use. In addition, most attention is currently given to centralised power generation to address the country's current shortage of electricity provision to households, with no national awareness of the benefits of renewable energy systems, especially on a small scale. In particular, the benefits of SBESs for rural energy, conservation and development have not been examined and promoted nationally. Consequently, without the project activities, it is likely that SBES planning will not form an integral part of national planning. Activities under Outcome 1 will therefore support the integration of approaches proposed by the project, particularly promotion of SBESs and CBNRM, into national policies and practices as a strategy for socio economic development and building community resilience. This Component of the project will primarily add incremental benefits to the baseline situation by targeting institutional, policy and capacity barriers related to SBES and CBNRM at a national level.

**Component 2: Developing community-based natural resource management (CBNRM) plans and establishing community forests in 2 project areas**

Without the GEF project, the limited technical capacity and low level of awareness will continue to be a barrier to establishing FMCs and assisting them to design and implement CBNRM plans. Consequently, the management of forested areas and other natural resources is likely to remain centralised through MAIL while the decentralisation of NRM to communities will only be implemented in a fragmented ad hoc fashion by donor-driven initiatives. GEF resources will therefore be used to i) build upon the activities of the baseline projects as a foundation for establishing and implementing CBNRM plans within two pilot districts that are representative of two ecologically distinct areas – the Eastern Forest Complex and the Central Highlands, respectively; ii) appoint skilled and experienced technical services providers to lead the development of training tools and programmes for government extension officers in the pilot areas as well as at members of FMCs; and iii) represent a valuable means of empowering rural communities, including women, in Afghanistan. The GEF project will adopt a phased approach to engaging communities in the design and implementation of CBNRM plans. Communities which have already established Forest Management Committees (FMCs) will be prioritised during the initial stages of the project. This Component of the project will primarily add incremental benefits to the baseline situation by targeting barriers relating to designing, implementing and monitoring CBNRM at the level of communities and sub-national government. In addition, this Component will target barriers related to accessible and availability of data and information to inform the design and implementation of CBNRM plans. The collection of forest inventory data will increase the availability of information to quantify the potential benefits and impacts of improved management of natural resources, in particular forests and other woody vegetation types. The rationale for the proposed approach to Component 2 is detailed further in Section 2, and particularly in Appendices 8–10, of the Project Document.

**Component 3: Promoting the demonstration and deployment of sustainable biomass energy systems, with a CBNRM approach.**

Without the GEF project there will remain a low level of awareness and adoption of efficient technologies for biomass energy. This is partly attributable to inconsistent monitoring and limited availability of data to assess the outcomes of previous initiatives. In the absence of technical capacity and political will to promote and demonstrate SBESs and alternative approaches to biomass fuel use, there will continue to be little entrepreneurial interest or awareness of SBES. In addition, without GEF resources, it is likely that rural households in the target sites will continue to depend on unsustainably managed forest resources to supply biomass energy for inefficient cooking and heating, continuing or exacerbating current levels of deforestation and land degradation. The reduction in available fuel has a high impact on women's lives and health. Consequently, there is an urgent need to develop improved alternatives to traditional biomass energy use. GEF resources will therefore be used to address the technical, social and market barriers that currently prevent the widespread adoption of SBESs in Afghanistan by building on the baseline investments in capacity for rural development, community-based governance and renewable energy access. The following SBESs include a mix of low-cost and intermediate-cost technologies, which have the potential to reduce GHG emissions from household biomass fuel use. Furthermore, they are identified as suitable technologies to be demonstrated in the two pilot districts of Dara-e-Noor (Nangerhar province) and Salang (Parwan province). The project will promote each of these SBESs in an

approach based on demonstration of concept and iterative improvement of design based on technical research and user feedback.

- **Low-cost fuel-efficient cooking stoves (FECs)**, to be produced by local tinsmiths and sold to households in participating communities at a partially subsidised price. FECs mainly reduce the consumption of woodfuel relative to unimproved/traditional cooking methods through: i) improved insulation, thereby reducing loss of heat to atmosphere; and ii) improved fit of cooking pot with stovetop, thereby increasing efficiency of heat transfer to the cooking pot. It is anticipated that FECs will mainly contribute to reduced household fuel use during the warmer seasons of the year when household energy needs do not include significant requirements for heating the homestead. The design of FEC to be piloted will be based on the model of stove piloted under the USAID ILGNRM project<sup>33</sup>. Cost of the stoves is estimated to be ~USD 50, including both procurement of material and payment for the labour of artisanal tinsmiths. FECs will reduce the use of cooking fuel by at least ~25%. This style of stove has been adapted to allow for the cooking of traditional *naan* flatbreads, which contributed to the uptake of this stove design by communities in the aforementioned project.
- **Low-cost fuel-efficient *bukhari* stoves (FEBs)**, to be produced by local tinsmiths and sold to households in participating communities at a partially subsidised price. It is anticipated that FEBs will mainly contribute to reduced household fuel use during the winter periods, when households will favour the use of systems that contribute to household heating. The project will favour a design of *bukhari* that includes stovetop apertures to allow for cooking and warming of water to be undertaken at the same time. It is conservatively assumed that FEBs will reduce household fuel use by up to ~25% in consideration of the likelihood that: i) households which receive FEBs will still practice traditional methods such as *tandoor* for cooking certain dishes; and ii) FEBs will be less suitable for household use during summer when excessive heat in the household is uncomfortable<sup>34</sup>. Total production costs of FEB are estimated at ~USD 50<sup>35</sup>.
- **Household-scale biogas digesters**, to be constructed *in situ* by community members with the support of trained local builders. Biogas digesters to be promoted by the project will be based on the design and approach advocated by the NGO BORDA, which has been developed specifically for the context of Afghan households. The estimated cost of materials for construction of the digesters (not including labour) is ~USD 600–800, which will be partially subsidised by the project as an incentive to promote adoption of the technology. Digesters will be promoted preferentially to wealthy and/or influential households in the area for the following reasons: i) initial investment costs are relatively expensive for most households; ii) households with sufficient livestock animals to supply the digesters should be identified and prioritised; iii) households with the necessary cooking attachments for LPG fuels should be identified and prioritised to ensure compatibility with existing cooking methods and equipment; and iv) promotion of new technologies by influential community leaders will increase the credibility of the biogas digester system in the eyes of sceptical community members. It is unlikely that biogas digesters will completely displace traditional methods of cooking. Furthermore, this type of SBES will not displace the significant household demands for heating during winter. It is assumed that a well-maintained biogas digester could reduce household use of biomass fuel for cooking and heating water by ~50%. Additional benefits of these systems is the improved indoor air quality and resultant health benefits of reduced smoke pollution. Furthermore, the systems produce a composted slurry of waste which can be used as an agricultural fertiliser.

Research outputs will be hosted on a publicly accessible forum under Component 1, thereby contributing to the availability of technical data on SBESs. Furthermore the research undertaken on SBESs will be used to inform the policy briefs generated in support of institutional strengthening activities under Component 1 as well as the public awareness-raising activities under Component 4.

<sup>33</sup> USAID. 2013. Performance Evaluation: improving livelihoods and governance through natural resources management (ilgnrm) project, Afghanistan. Accessed on 31 October 2014. Available at: [https://www.academia.edu/7808374/Performance\\_Evaluation\\_improving\\_livelihoods\\_and\\_governance\\_through\\_natural\\_resources\\_management\\_ilgnrm\\_project\\_Afghanistan](https://www.academia.edu/7808374/Performance_Evaluation_improving_livelihoods_and_governance_through_natural_resources_management_ilgnrm_project_Afghanistan)

<sup>34</sup> Escorts Foundation (1999). Fuel Efficient Smokeless Stoves, Pakistan. [http://postconflict.unep.ch/humanitarianaction/documents/03\\_03-04\\_02-05.pdf](http://postconflict.unep.ch/humanitarianaction/documents/03_03-04_02-05.pdf)

<sup>35</sup> Ashmore, J. 2002. Analysis of heating and cooking fuels and stoves in refugee, IDP and local settlements, Kabul, Herat, Afghanistan March 2002. Accessed on: 31 October 2014. Available at: [http://www.shelterproject.org/downloads/pcer1rep/stoves\\_06\\_02.pdf](http://www.shelterproject.org/downloads/pcer1rep/stoves_06_02.pdf)

#### **Component 4: Awareness raising and monitoring and evaluation**

Without the GEF project, there will remain a low national awareness of the potential of SFM, REDD+ and other activities for securing international funding for the conservation and sustainable management of current forests in Afghanistan. This mobilisation is further hampered by the current limited capacity to undertake a carbon monitoring programme. GEF resources will be therefore be used to gather best practices and lessons learned through the project interventions, and share these through appropriate media. The process of learning-by-doing will allow the project to increase the impact and success of activities throughout the project duration. The exchange of knowledge between other renewable energy projects nationally, regionally and internationally through appropriate networks will ensure that the project can make use of all available expertise, while also contributing to global knowledge on the implementation of SBESs. Linkages with on-going UNEP and FAO national and international networks will be developed to enhance the success of the project.

**The global environmental benefits** that will be delivered by the project are described below:

The project will lead to direct reduction of GHG emissions from project sites in Dara-e-Noor district in Nangerhar and Salang district in Parwan as a result of:

- Avoided emissions from deforestation and degradation through the adoption of improved NRM and SFM practices;
- Increased sequestration of carbon in plant biomass and soil as a result of sustained implementation of CBNRM plans beyond the period of project implementation; and
- Reduced and avoided GHG emissions from domestic use of biomass fuels, through the adoption of sustainable biomass energy systems such as efficient stoves and anaerobic biogas digesters by at least ~1,920 households.

The project will aim to introduce sustainable practices for natural resource management to the project areas across a total spatial area of at least 24,000 ha (~12,000 ha in each of the two project districts). The project will target communities in two separate intervention areas, aiming to include at least 20 Community Development Councils in training and awareness-raising activities in each of the two project areas, representing an estimated population of ~30,000 people in each of the two project areas. Further direct benefits of the project, aside from GHG emission reductions, will include:

- increased livelihood opportunities based on increased availability of valuable natural resources through improved management under CBNRM plans;
- increased income for at least 15 local tinsmith artisans, masons and builders who will be contracted and trained to manufacture and market SBES; and
- increased capacity for at least 45 provincial- and district-level extension staff in the two pilot areas, through targeted training programmes and workshops.

Additional indirect benefits of the projects activities that will not be monitored over the project implementation period include *inter alia*:

- enhanced conservation of threatened fauna and floral biodiversity in two distinct ecosystem types, including the Eastern Forest Complex and Central Highlands steppe woodlands;
- increased provision of beneficial ecosystem services through adoption of improved NRM practices, such as reduced incidence of erosion, landslides and flooding;
- reduced fuel collection time and/or expenditure through improved efficiency of biomass energy use (further detail below); and
- improved health, particularly for women and children, through reduced exposure to indoor pollution (further detail below).

The total GHG reduction potential of the project is summarised in Table 8, below. The estimated emission reductions during the three year project implementation period are estimated to be ~37,491 tonnes CO<sub>2</sub>e per annum. Over a 20 year period, the project's activities will contribute to a **total reduction of GHG emissions of ~838,267 tonnes CO<sub>2</sub>e**. The majority of the GHG emission reductions and sequestration through forest and rangeland management and rehabilitation interventions will occur after the completion of the project implementation period. Therefore, the project's activities are designed to establish a base of skills, experience and guidelines to support sustained future investments in successful approaches identified by the project. By establishing this enabling environment, the project will facilitate a gradual

long-term decrease in emissions of GHG, because of reduced deforestation and degradation in community-managed forests and rangelands.

**Table 8. Total estimated reduction of GHG emissions as a result of project activities.**

		Baseline emissions (tCO <sub>2</sub> e/yr)	Project avoided emissions (AE) in tCO <sub>2</sub> e			
			Avoided annual emissions	AE over project lifetime (3 years)	AE over yrs 4-20	Total AE from project sites
Dara-e-Noor	Emissions from land use change (12,000 ha)	5,786	-5,786	-17,358	-115,722	-133,080
	Emissions from household use of biomass fuel (20000 households)	8,986	-1,716	-5,149	-23,468	-28,617
			Project sequestration in tCO <sub>2</sub> e			
			Additional annual sequestration	Additional sequestration over project lifetime	Additional sequestration over years 4-20	Total AE from project sites
	Carbon sequestration (12,000 ha)		-1,4792	-44,376	-251,468	-295,844
	Subtotal	14,772	-22,294	-66,883	-390,658	-457,541
Salang			Project avoided emissions (AE) in tCO <sub>2</sub> e			
			Avoided annual emissions	AE over project lifetime (3 years)	AE over yrs 4-20	Total AE from project sites
	Emissions from land use change (12,000 ha)	2,477	-2,477	-7,433	-49,530	-56,963
	Emissions from household use of biomass fuel (20000 households)	315,911	-1,716	-5,149	-87,529	-92,677
			Project sequestration in tCO <sub>2</sub> e			
			Additional annual sequestration	Additional sequestration over project lifetime	Additional sequestration over years 4-20	Total Sequestration from project sites
	Carbon sequestration (12,000 ha)		-11,004	-33,012	-187,070	-231,086
	Subtotal	318,388	-15,197	-45,594	-324,129	-380,726
	<b>Total emissions</b>	<b>333,160</b>	<b>-37,491</b>	<b>-112,476</b>	<b>-714,787</b>	<b>-838,267</b>

**A.6 Risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and measures that address these risks:**

Risks identified during the preparation of the PIF for the achievement of the project objectives and results have been further analysed and additional risks have been identified and analysed as part of the project risk assessment, undertaken during the design of the project. Mitigation measures have, in each case, been developed and incorporated into the full project design.

The approach to implementing project activities will be explicitly focused on establishing sustainable practices for the management of forest and natural resource use, including the establishment of allowable harvesting rates of commercially valuable products. The establishment of CBNRM plans will focus on enhanced protection and restoration of existing natural forests rather than reforestation/afforestation of degraded areas, and as a result the primary focus of CBNRM will be on the restoration of indigenous plant species and biodiversity. Consequently, the project is aligned with the FAOs governing principles<sup>36</sup>, in that it will enhance biodiversity and ecosystem functionality. However, the activities related to CBNRM will be selected by participating communities and could also include complementary activities such as establishment of woodlots and enrichment planting of degraded areas, and as a result it may be the preference of communities to include non-indigenous species that generate commercially valuable products. In the latter scenario, the project will promote the use of non-invasive species, and will be complemented by awareness-raising and training activities that will emphasise the importance of maintaining indigenous biodiversity. Guidance and advice from local botanical, ecology and forestry specialists will be integral to the development of the project's activities and will ensure that interventions are environmentally appropriate, socially beneficial and economically viable.

A strong emphasis will be applied to establishing sustainable harvesting practices within target communities. The project's dual aspects of limiting the demand for biomass while increasing supply is directed at minimising negative environmental impacts and maximising beneficial practices. To ensure this takes place, training on the sustainable harvesting of natural resources will be emphasised. This will include training on: a) preferred species; b) seasonal harvesting on particular species; c) harvest techniques to promote regrowth e.g. coppicing, selective pruning, collection of deadwood; d) ensuring adequate availability of seedlings and seedstock to allow for regeneration of harvested areas; e) establishing systems for rotational harvesting and grazing to support recovery of harvested areas; f) limits to harvesting on single specimen; and g) impacts of harvesting deadwood. Guidelines of grazing, browsing and rangeland management will also be included as part of this training.

The activities supported by GEF funds will be aligned with the Environmental Law and Forest Law and will ensure that participating communities are actively engaged in the selection and implementation of activities that are aligned with the laws and traditional practices of CDCs and district councils.

**Table 9. Identified risks and mitigation measures**

Identified Risk	Impact	Likelihood	Mitigation Measures
Potential conflict and increased internal security risks	High	High	<p>The identified pilot districts are considered to be relatively secure at present, and have had a low incidence of conflict over the last ten years. Furthermore, a full security analysis will be undertaken before sites are finalised during the implementation phase. Preference will be given to secure and stable intervention sites with a good working relationship with the project-executing agency or sub-contracted NGOs, aligned with the site selection criteria proposed during the inception workshop.</p> <p>Project will operate under United Nations minimum operational security standards (MOSS).</p> <p>Strong participatory stakeholder consultation will be undertaken to ensure reasonable project expectations, clarify roles and responsibilities and to ensure local buy-in.</p> <p>Continual engagement with local political structures (<i>shuras</i>, CDCs and community leaders) will enhance legitimacy and community ownership.</p> <p>The project's approach to field-based activities will prioritise the employment of national consultants and staff and will be implemented with the assistance of NGOs who are well-respected and familiar to local communities.</p>
Availability of sufficiently competent local	High	High	An experienced project coordinator will be selected to ensure that government staff are motivated and have adequate access to technical support and training.

<sup>36</sup> As set out in the Environmental impact assessment: Guidelines for FAO field projects (2012)  
GEF5 CEO Endorsement Template-February 2013.doc



technical expertise			<p>To complement and strengthen national capacities, working relationships with International Agencies and NGOs with 'on-the-ground' capacity such as UNEP, MADERA and BORDA will be prioritised. These agencies have a strong emphasis on appointment of national staff and have well-established relationships with government staff. Consequently, close engagement with the aforementioned agencies will ensure that the project's activities are focused on building on existing capacity and provides a means of introduction to particularly experienced or skilled individuals.</p> <p>Both FAO and UNEP have years of operational experience in challenging circumstances in Afghanistan.</p> <p>Project activities will strongly emphasise capacity-building, awareness-raising and the development of dedicated training tools, tailored to the individual needs of government staff, community members and independent bioenergy experts. This will include a process of 'training of trainers' to ensure a constant focus on transfer of knowledge and technical skills.</p>
Inadequate national and institutional priority given to climate change mitigation measures because of limited knowledge	Medium	Medium	<p>Awareness and technical capacity relating to climate change mitigation is relatively low within government. However, several ongoing initiatives are focused on increasing institutional capacity and awareness of climate change, for example through UNEP's Building Environmental Resilience in Afghanistan (BERA) programme and LDCF1 and LDCF2 projects. NEPA is the institution mandated with coordinating GoIRA's climate change response while MAIL is the UNFCCC focal point, consequently the project will be imbedded in the government institutions with the most direct relevance to climate change.</p> <p>The project's activities will include a focus on establishing data, information and policy briefs to inform GoIRA's response to climate change, particularly with respect to monitoring and reporting on GHG emissions.</p>
Climate change-induced extreme weather and associated phenomena (droughts, floods and sandstorms) or extreme climatic variations / natural hazards may reduce effectiveness of project interventions or damage infrastructure.	Medium	Medium	<p>Project interventions will be designed to reduce the potential impacts of climate change and to increase the resilience of local communities to climate impacts through the provision of locally available resources and ecosystem services.</p> <p>MADERA baseline programme has experience and expertise in activities such as improved thermal insulation and passive solar heating of households, therefore communities will benefit from additional information and training on multiples methods of increasing efficiency of household heating.</p> <p>The project will also build upon baseline and related initiatives that are focused on reducing the vulnerability of communities, therefore the project's activities will be strengthened by the investments of previous initiatives.</p>
Limited government engagement	High	Low	<p>The GoIRA, under NEPA, MAIL and the MRRD, has already expressed its commitment to the project.</p> <p>The project addresses specific priorities identified by the GoIRA (see Section 1.1.5), and has been developed in close participation with project partners, including MAIL, MRRD, NEPA, MEW, BORDA, MADERA, Kabul University, and local DDAs, CDCs and FMCs.</p> <p>Continuous stakeholder engagement through the project lifetime and capacity building within NEPA, MAIL, MEW and the MRRD at national, provincial and district level will sustain national support and enhance the capacity for project implementation within the relevant agencies.</p>
Livelihood dependence of communities in pilot	Medium	Medium	<p>A community-based management approach combining natural resource management and integrated energy planning will be undertaken to ensure that project activities directly address community desires and needs in an integrated</p>



projects may undermine the project's efforts to promote sustainable NRM.			<p>approach.</p> <p>Project activities will be designed to enhance livelihoods and reduce the dependence of local communities on natural resources, allowing for their use to be sustainable.</p> <p>To reduce the extractive pressure on forests and natural resources by local community members, the project will promote and distribute at least two SBESs that will reduce use of non-renewable biomass energies. Specifically, the project will promote both: i) low-cost energy-efficient woodfuel cookstoves and <i>bukhari</i> heaters, that will reduce the rate of woodfuel use; and ii) household-scale biogas digesters, which will displace unsustainable woodfuel use by promoting livestock waste as an alternative biomass fuel.</p>
Limited sustainability and upscaling of project outcomes after project completion	Medium	Medium	<p>Project activities include empowerment of private sector to undertake design, construction and marketing of SBESs, which will increase the long-term sustainability of the project's interventions impacts. Although there will be inherent risk of failure in private sector ventures, successful outcomes will expand and increase their market share.</p> <p>Furthermore, the selection of activities and specific species to be managed within CBNRM plans will prioritise commercially valuable forest products and livelihood-generating activities such as nursery establishment, thereby creating new revenue streams for community members.</p> <p>Strong stakeholder ownership will be promoted through continual engagement, training and integration of project outcomes into national policymaking procedures.</p> <p>By laying the groundwork for Afghanistan to access further development funding through the CDM and REDD+ mechanisms, the project will facilitate significant long-term integration of CBNRM and SBES processes and approaches into national development strategies.</p>
Women may have limited efficacy over proposed interventions	Medium	Medium	<p>Site-selection criteria will include the presence of an active and motivated women's group or advisory committee, which will be engaged with throughout project design and implementation.</p> <p>CDCs are composed of at least 30% female representatives. Consequently the participation of women in the project's activities is assured. In practice the ease of including the participation of women in certain activities is likely to be variable between communities according to local dynamics.</p> <p>Training programmes will be based on specific activities which are appropriate for the inclusion of women, particularly those activities related to the operation of SBESs (which is traditionally the domain women).</p> <p>Gender disaggregated indicators will be developed and used for monitoring and evaluation.</p>

## A.7. Coordination with other relevant GEF financed initiatives

### *Implementation arrangements*

**Execution Partners:** The project will be implemented through the FAO Representation in Afghanistan and its office in the MAIL compound in Darulaman. MAIL is proposed as the lead national executing partner of the project and will oversee the timely execution of project activities in participation with other project partners. The close working relationship established between FAO and MAIL over the last decade, and the mandate of FAO as the agricultural development partner and service provider to the Ministry, will support effective and coordinated implementation. However, as a result of the cross-sectoral focus of the project's activities, the active participation of MRRD, NEPA and MEW is required for execution of various outputs of the project. NEPA is requested to play a role of coordination – both between participating stakeholders as well as with other ongoing initiatives – and to chair the Project Steering

Committee. This role is proposed to be suitable for NEPA on the basis of this agency's mandate as GEF Operational Focal Point and chair of the National Climate Change Committee.

The responsibilities of MAIL as lead executing agency will be managed by an appointed National Project Director (NPD). The NPD will be designated by MAIL in consultation with the FAO Budget Holder (BH) and the Lead Technical Officer (LTO). The NPD will be a senior staff member of the MAIL with relevant experience, and will be able to devote sufficient time to take part in the project during its implementation. Among the many duties of the NPD, he/she will act as the responsible focal point at the political and policy level within MAIL and he/she will ensure that all necessary support and inputs from Government personnel are provided by MAIL to enable the project to implement all of the proposed component activities. His/her Terms of Reference can be found in Appendix 6. For the first two years of the project, the NPD will get professional backstopping from a CTA in all ecological and climate change aspects of the project's activities.

Other executing government agencies of the project – specifically NEPA, MEW and MRRD – will be represented by suitably qualified focal points, to be nominated by the respective executing agencies and formally designated in participation with BH and LTO. These ministerial focal points will participate in key project management structures, particularly the PSC and NPIU, to guide implementation of the project's activities and support coordination with ongoing initiatives. Furthermore, the responsibilities of these national focal point representatives of NEPA, MEW and MRRD will include the facilitation of cooperation and support from provincial government representatives, thereby assuring high-level political support for the field-based work of the project undertaken by the Provincial Coordination Units (PCUs). All executing agencies should be represented in the Sustainable Biomass Energy Working Group (SBEWG) under Component 1. However, the individual representative of each ministry in the SBEWG may be the aforementioned national focal point or alternatively an additional individual nominated by the respective ministries.

An important objective of the PSC should be to ensure regular communication and clear coordination of activities between the above stakeholders. All participants should focus on identifying potential opportunities for synergies between ongoing projects and initiatives, while avoiding parallel activities and duplicated efforts.

MAIL – and its provincial representation DAIL – will be leading the implementation of activities under Component 2 of the GEF project with the support of project staff and Technical Service Providers (TSPs). In particular, the responsibility of MAIL in this component of the project will be the engagement and provision of technical guidance to support communities to establish FMCs and implement CBNRM plans. The NPD based in Kabul will ensure that Provincial Coordination Units, hosted by provincial MAIL representatives, are provided with adequate institutional support and resources to oversee the implementation of field-based activities in Components 2 and 3.

Other partners supporting project execution will work closely with MAIL through their nominated technical focal points at the national, provincial and local levels. NEPA is the GEF focal point and will assist with coordination within the project's components and participants, in addition to supporting coordination between the GEF project and other ongoing initiatives.

Under Component 1, MAIL, NEPA, MRRD and MEW will contribute to activities relating to institutional strengthening within their particular mandates to promote and implement SBES and CBNRM at a national level. Interventions under Component 2 will be led by MAIL with support from the provincial directorates of MRRD and NEPA, implemented through the Provincial Coordination Units (PCUs) established in each of the pilot provinces. Interventions under Component 3 will be led by the provincial directorates of MRRD in participation with MEW, with executional support from MAIL as necessary. Other execution partners for the project will include representatives of DDAs within each of the pilot districts and a targeted number of at least 20 CDCs within each pilot district.

The project is designed to achieve many of its key outputs by means of letters of agreement (LoA) with key partners. These LoA are listed under the "Contracts" Budget Line of the project budget. Further detail on results-based LoA work plans and budgets will be developed during inception phase of the project. Specific LoA will be elaborated and signed between FAO and the respective collaborating partners. Funds received under a LoA will be used to execute the project activities in conformity with FAO's rules and procedures.

*FAO's role and responsibilities, as the GEF Agency (and as an executing agency, when applicable), including delineation of responsibilities internally within FAO*

FAO will be the GEF implementing agency. As the GEF Agency, FAO will be responsible for project oversight to ensure that GEF policies and criteria are adhered to, and that the project efficiently and effectively meets its objectives and achieves expected outcomes and outputs as established in the project document. FAO will report on project progress to the GEF Secretariat and financial reporting will be to the GEF Trustee. FAO will closely supervise the project by drawing upon its capacity at the global, regional and national levels, through the concerned units at FAO-HQ, the Sub-Regional Office in Bangkok and the FAO Representation in Afghanistan. There is a complete separation between the GEF oversight responsibilities and project execution roles and responsibilities, as described below. FAO, in consultation with the NPD, will deliver procurement and contracting services to the project using FAO rules and procedures, as well as financial services to manage the GEF resources. For more detail, please see description below.

**Executing Responsibilities (Budget Holder):** Under FAO's Direct Execution modality, the FAO Representative in Afghanistan will be the Budget Holder (BH) of this project. The BH, working in close consultation with the Lead Technical Officer (LTO), will be responsible for timely operational, administrative and financial management of the project. The BH will head the multi-disciplinary Project Task Force established to support the implementation of the project and will ensure that technical support and inputs are provided in a timely manner. The BH will be responsible for financial reporting, procurement of goods and contracting of services for project activities in accordance with FAO rules and procedures. Final approval of the use of GEF resources rests with the BH, also in accordance with FAO rules and procedures.

Specifically, working in close collaboration with the LTO, the BH will: i) clear and monitor annual work plans and budgets; ii) schedule technical backstopping and monitoring missions; iii) authorize the disbursement of the project's GEF resources; iv) give final approval of procurement, project staff recruitment, LoAs, and financial transactions in accordance with FAO's clearance/approval procedures; v) review procurement and subcontracting material and documentation of processes and obtain internal approvals; vi) be responsible for the management of project resources and all aspects in the agreements between FAO and the various executing partners; vii) provide operational oversight of activities to be carried out by project partners; viii) monitor all areas of work and suggest corrective measures as required; ix) submit to the GEF Coordination Unit, the TCID Budget Group semi-annual budget revisions that have been prepared in close consultation with the LTO; x) be accountable for safeguarding resources from inappropriate use, loss, or damage; xi) be responsible for addressing recommendations from oversight offices, such as Audit and Evaluation; and xii) establish a multi-disciplinary FAO Project Task Force to support the project.

Operations and reporting - including the procurement of goods and contracting of services for Project activities - will be done in accordance with FAO rules and procedures. As such, FAO will, in close coordination with the NPD, be responsible for the timely recruitment of key project posts listed above such as the NPD and the CTA. In accordance with FAO rules and procedures, final approval of the use of GEF resources rests with the FAO Representation in Afghanistan.

**The FAO Lead Technical Unit (LTU).** The Forest Assessment Management and Conservation Division of FAO's Forestry Division (FD) will be the LTU within FAO for this Project and will provide overall technical guidance to its implementation. FOM will delegate the responsibility for direct technical supervision to the FAO Regional Office for Asia Pacific (RAP) - Natural Resources and Environment Group (NREG).

**FAO Lead Technical Officer (LTO)** The Senior Forestry Officer of RAP/NREG will be the LTO for the Project and will have primary accountability for the timeliness and quality of the technical services provided throughout project execution. The LTO will work in close collaboration with the National Project Director. Under the general technical oversight of the LTU, the LTO will provide technical guidance to the Project team to ensure delivery of quality technical outputs. The LTO will coordinate the provision of appropriate technical backstopping from all the concerned FAO units represented in the Project Task Force. The Project Task Force is thus composed of technical officers from the participating units (see below), operational officers, the Investment Centre Division/GEF Coordination Unit and is chaired by the BH. The primary areas of LTO support to the project include:

- review and ensure clearance by the relevant FAO technical officers of all the technical Terms of Reference (TOR) of the project team and consultants;
- ensure clearance by the relevant FAO technical officers of the technical terms of reference of the LoA and contracts;
- in close consultation with MAIL, MRRD, NEPA, and MEW review and clear the selection of the project staff, consultants and other institutions to be contracted or with whom an LoA will be signed; as well as review and clear technical reports, publications, papers, training material, manuals, etc.;
- monitor technical implementation as established in the project results framework;
- review the Project Progress Reports (PPRs) and prepare the annual Project Implementation Review (PIR);
- represent FAO in the PSC;
- provide technical support to the National Project Director;
- provide technical inputs to procurement and contract documentation;
- review and clear final technical products delivered by consultants and contract holders financed by GEF resources before the final payment can be processed; and
- support the NPIU in preparing the AWP/B, with support from the Budget Holder and clearing it prior to submission to the PSC.

**FAO Project Task Force (FAO-PTF).** The FAO-PTF will be led by the Budget Holder and include the LTU, LTO, TCI Asia Service and GEF Coordination Unit, and other technical units supporting the project's work. The main role of the task force is to provide technical guidance to the LTO and the NPIU for the implementation of the project, contribute to specific project activities as required, and troubleshoot should implementation issues arise.

**FAO GEF Coordination Unit in Investment Centre Division** will review and approve PPRs, annual PIRs and results-based financial reports and budget revisions. The GEF Coordination Unit will organize annual independent supervision missions, in consultation with the LTU, LTO, the BH and TCIB. The PIRs will be included in the FAO GEF Annual Monitoring Review submitted to GEF by the GEF Coordination Unit. The GEF Coordination Unit will work closely with the FAO Evaluation Office (OEDD) to ensure that the project's mid-term review and final evaluations meet GEF requirements by reviewing evaluation ToRs and draft evaluation reports. Should the PIRs or mid-term review highlight risks affecting the timely and effective implementation of the project, the GEF Coordination Unit will work closely with the BH and LTO to make the needed adjustments in the project's implementation strategy.

The **Investment Centre Division Budget Group (TCID)** will provide final clearance of any budget revisions.

The **FAO Finance Division** will provide annual Financial Reports to the GEF Trustee and, in collaboration with the GEF Coordination Unit and the TCID Budget Group, call for project funds on a six-monthly basis from the GEF Trustee.

#### *Project technical, coordination and steering committees*

**Project Steering Committee (PSC):** A project PSC will be established and chaired by NEPA with the participation of MRRD, MAIL, MEW, and FAO. Women's participation will be prioritised and promoted. Observers from NGOs (such as MADERA and BORDA) as well as academia (such as Kabul University) will also be invited to participate. The PSC will meet a minimum of once a year and its specific responsibilities will be: i) overall oversight of project progress and achievement of planned results as presented in the results-based annual work plan and budget (AWPB) and reported in six-monthly Project Progress Reports; ii) take decisions in the course of the practical organization, coordination and implementation of the project; iii) facilitate cooperation between the NPIU and project participating partners; iv) advise the NPIU on other on-going and planned activities facilitating collaboration between the Project and other programmes, projects and initiatives in Afghanistan; v) facilitate that co-financing support is provided in a timely and effective manner; and vi) review six-monthly Project Progress and Financial Reports/Budget Revisions and approve AWP/B.

**Technical Working Group:** A Sustainable Biomass Energy Working Group will be established and chaired by MAIL, with the voluntary participation of MRRD, MEW, NEPA, FAO, UNEP, NGOs (such as BORDA and MADERA),

BCA, and academia (such as Kabul University). The working group will coordinate with the NPIU and, where appropriate, will provide technical support and guidance for GEF project interventions.

**National Project Implementation Unit (NPIU):** will be hosted by MAIL and will be responsible for day-to-day project operations. The role of the NPIU will be, in close consultation with the PSC and Sustainable Biomass Energy Working Group members, to ensure the coordination and execution of the Project through the timely and efficient implementation of annual work plans. The NPIU will act as secretariat to the PSC. It will coordinate work and follow the implementation of project activities closely, handle day-to-day project issues and requirements, coordinate project interventions with other on-going activities and ensure a high degree of provincial and local inter-institutional collaboration, monitor project progress and ensure the timely delivery of inputs and outputs. It will organize workshops and annual meetings for the GEF project for monitoring project progress and develop results-based work plans with detailed budget for the next year to be approved by the PSC. It will be responsible for implementing the project's M&E plan, setting up and managing its monitoring system and communication programme, the elaboration of six-monthly Project Progress Reports and assist in the preparation of the annual Project Implementation Review (PIR) and midterm and final evaluations, which include gender reports. Project Progress Reports on implemented activities and progress in achieving project outputs and outcomes, and financial statements of expenditures and status for the previous year will be submitted together with the Annual Work Plan and detailed Budget (AWP/B) to the PSC and FAO via MAIL's Project Director.

The NPIU will consist of the following MAIL, MRRD, NEPA, and MEW staff:

- a part-time Project Director from MAIL in charge of overall coordination and supervision of the project and coordination with other sector departments;
- a full time **National Project Manager (NPM)** managing project information and documentation, and distribution of project reports, newsletters and training materials to relevant stakeholders; managing project M&E, and conducting regular field M&E visits to project sites. The NPM will be in charge of daily project management and technical supervision including, preparing AWP/B and allocating tasks to Field Offices, preparing TORs and technical requirements for consultancy services contracting documents and material and equipment procurement documents, providing technical supervision and guidance to the Field Offices in implementing project activities, conducting regular field supervision visits and provide on-site guidance to local technical staff, day-to-day coordination and communication with Field Office staff in charge of the GEF project, and preparing the project progress reports;
- an **Administrative and Financial Assistant** (based in the FAO Representation) in charge of preparing visa and travel requests for the employees of the Project, consultants in accordance with FAO standard operating procedures, solution of organizational issues on project staff's travel; preparing of short-term contracts in accordance with FAO requirements and procedures and exercising control over observance of contract terms and periods; developing of a catalogue of materials on monitoring of the project and project activities (correspondence, reports, budget and financial expenses) in accordance with FAO requirements; preparing logistics of workshops, working meetings, delegations, field expeditions and etc. The administrative and financial assistant will also be responsible for finances. These duties include preparing detailed budgets for cash transfer requests based on the AWP/B and project account cash balance, keeping the financial records and regular review of the project account, reviewing the receipts and financial reports submitted by field offices and sub-contractors and preparing six-monthly financial statement of expenditures, preparing the personnel and services contracting and procurement documents and participate in contracting and procurement processes including of submission of documentation to FAO for ex-antes clearances, and preparing relevant documents for internal and external financial audits;
- a **Chief Technical Advisor (CTA)** will provide professional backstopping for all aspects of ecosystem-based approaches for climate change mitigation, organic farming, rangeland management and agroforestry as well as environmental awareness, education and capacity building. He/She has to ensure that the project is an active member of a broader knowledge management network on adaptation to climate change and natural resource and land management. This includes emphasising a learning and adaptive approach to project management and implementation in close cooperation with the national partners. The CTA will work closely with the National Project Manager and will deputize him/her when necessary.

**Provincial Coordination Units (PCUs)** will function as field offices and will be responsible for pilot site activities and work under supervision of the NPIU and work closely with local stakeholders and resource user associations. The PCUs

will be staffed by a Provincial Field Site Coordinator and Technical assistants funded by GEF and reporting to the NPIU, as well as other specialised national consultants that support pilot site activities and local staff seconded to the project.

**Provincial Coordinating Committee (PCC):** The mandate of the PCC will be to: i) provide advice on relevant policies, actions and measures in particular related to participation of local communities at the pilot sites in Nangarhar and Parwan; ii) provide new ideas and thinking on conflict resolution over management of natural resources, options for increased carbon sequestration and sustainable use, and creative initiatives on how to increase public awareness of socio-economic and global environmental benefits generated by CBNRM; and iii) promote communications between the government agencies and local communities and the private sector. The composition of the PCC will include representatives from local DDAs, CDCs, CFCCs/CFAs, as well as provincial representation from MAIL, MRRD, NEPA and MEW. Women's participation will be prioritised and promoted. The PCC will meet back-to-back with the PSC to provide consolidated advice on stakeholder participation and engagement.

*Coordination with other ongoing and planned related initiatives*

The principle baseline activities upon which the GEF Project will build are the ASERD, the National Water and Natural Resources Development Program (NWNRD) under MAIL, NEPA's ongoing baseline activities and the mandate of BED under MEW. In addition the project will build on the ongoing baseline activities of BORDA and MADERA's respective programmes in Afghanistan. The GEF Project will build upon the activities undertaken under these baseline activities in a complementary manner in order to achieve the project goals. The project coordination unit for the GEF project will meet regularly with these programmes in order to ensure that the identified synergies are fully developed, and to facilitate feedback of information between the respective projects.

Several other GEF projects are currently underway in Afghanistan, and are being coordinated by NEPA. Through the central GEF focal point, interaction between these projects will be ensured, and wherever possible synergies in terms of training and project management will be developed:

GEF Trust Fund project "Developing core capacity for decentralised MEA implementation and natural resources management in Afghanistan" 2012 – 2015 (UNEP – US\$ 910,000). This project is designed to build national management and coordination capacity for the implementation of MEAs. An important outcome of this programme is the formation of a centralised GEF and MEA coordination entity housed within NEPA, which will allow Afghanistan to properly coordinate the implementation of GEF projects. In addition, through building knowledge of the impacts of climate change and implementation capacity for MEAs within key national agencies, it will assist in laying the groundwork for the GEF Project's activities relating to REDD+ and CDM capacity-building.

LDCF project "Building adaptive capacity and resilience to climate change in Afghanistan" 2012 – 2016 (UNEP – US\$5,390,000). The focus of this project is primarily on the development of national adaptive capacity to increase resilience of vulnerable communities under conditions of climate change. The project will develop Afghanistan's national capacity relating to planning for and dealing with the effects of climate change. Additionally, the project has a strong focus on ecosystem management approaches to climate change adaptation at local and national levels. This has strong overlaps with the establishment of multiple-benefit forest restoration projects coupled with the CBNRM approach to be undertaken for ensuring SBESs in the GEF Project. The two projects will therefore regularly meet to exchange lessons learned, project successes and challenges, and to integrate these into on-going activities to enhance project success. The National Climate Change Committee will sit on the project steering committees for both these projects, ensuring that good oversight and understanding of the projects is provided from all necessary ministries.

GEF Trust Fund project "Establishing integrated models for protected areas and their co-management in Afghanistan" 2013 – 2016 (UNDP – US\$7.25 million). This project has recently been approved by the GEF, and will be accessing the CBD and CCD components of the GEF allocation. It is currently in the PPG phase. The principal focus of this project is on the operationalisation of a network of protected areas for Afghanistan, including the formation of a Parks and Wildlife Authority to administer them. Of particular relevance to the GEF Project is the establishment of sustainable land management procedures with communities around the proposed protected areas, and the building of capacity within MAIL and NEPA to implement the project activities. There is no direct overlap in project activities between these two projects, but lessons learned during project implementation will be exchanged to facilitate increased efficiency and effectiveness. It is anticipated that the sustainable land management approaches undertaken through this

project will provide useful input for the GEF Project, whilst strategies for coordination of national and particularly local-level activities may be pertinent to the overall project.

## **B. ADDITIONAL INFORMATION NOT ADDRESSED AT PIF STAGE:**

### **B.1 Describe how the stakeholders will be engaged in project implementation.**

#### *General institutional context and responsibilities*

The implementation of the project will be dependent on the support and participation of multiple stakeholders, including representatives of three line ministries and the GEF focal point agency NEPA. Furthermore, at a local level the project will require the logistic and technical support of technical service providers to act as facilitating partners in participation with provincial departments of line ministries. Communities are represented by formal development committees and district-level development authorities established through the ongoing activities of MRRD. In addition to the important roles played by technical service providers and government representatives in providing support to local communities, the project will also rely on the involvement of academic institutions to lead the technical research on the performance and efficiency of SBESs demonstrated by the project. An organogram representing the roles of each stakeholder in the project's implementation plan can be found in Section 4.1 c). Table 14 (below) provides description of the roles and responsibilities of each stakeholder.

#### **Stakeholder involvement plan**

<b>Stakeholder</b>	<b>Roles and responsibilities</b>
United Nations Food and Agricultural Organisation (FAO)	The FAO is the GEF implementing agency for the project. It will provide technical support for the project as a whole through its global expertise and in-country infrastructure. This oversight role includes the identification and recruitment of suitable expertise (particularly in-house expertise) to ensure that project activities can be suitably planned and executed. In addition, it will facilitate the monitoring and evaluation of the project outcomes, and will sit on steering and management committees to provide essential project support.
Ministry of Agriculture, Irrigation and Livestock (MAIL)	MAIL is the government institution responsible for strengthening Afghanistan's licit agricultural economy through increased production, efficient natural resource management and market development. MAIL has both a Natural Resource Management Department and a Forestry Department. MAIL also chairs the Agriculture and Rural Development cluster of the National Priority Programmes.  Consequently MAIL will be the lead executing partner for the GEF project and will host the National Project Implementation Unit (NPIU) and Provincial Coordination Units (PCUs). The responsibilities of MAIL to execute the project will be overseen by an appointed National Project Director (NPD). MAIL is the agency best situated to undertake activities related to design and implementation of activities such as CBNRM and development of alternative rural livelihoods. Furthermore the technical capacity within MAIL will provide a foundation for the forest monitoring/inventory activities that will support the development of carbon markets. Consequently, the provincial directorates of MAIL will lead interventions under Component 2 in coordination with MRRD's implementation of interventions under Component 3. MAIL will also contribute to institutional strengthening activities under Component 1, and public awareness-raising activities under Component 4, where relevant. The representation of MAIL in the PSC and the Sustainable Biomass Energy Working Group (SBEWG) will be critical to support clear coordination of activities and responsibilities between project partners.

Stakeholder	Roles and responsibilities
National Environmental Protection Agency (NEPA)	<p>NEPA is Afghanistan's national GEF focal point. It currently chairs the inter-ministerial Committee for Environmental Coordination and the National Climate Change Committees, which are responsible for the coordination of inter-ministry responses to cross-cutting and multi-sectoral issues. NEPA has been identified as an Executing partner for this and other projects under multilateral environmental agreements (MEAs), and will therefore coordinate both the local and international stakeholders for the GEF project implementation as well as with other aligned initiatives.</p> <p>Consequently, NEPA will chair the PSC and will be represented in the National Project Implementation Unit (NPIU) and SBEWG. Furthermore, NEPA will support the implementation of field-based activities under Components 2 and 3 by MAIL and MRRD, respectively. Provincial NEPA staff will therefore be represented in the Provincial Coordination Units (PCUs) established in the pilot provinces. The participation of NEPA provincial staff will be particularly valued in activities related to NRM, community capacity-building and public education/awareness-raising.</p> <p>NEPA will also contribute to policy revision under Component 1, where relevant, and will support the awareness-raising activities under Component 4 through ongoing public outreach and awareness-raising activities.</p>



Stakeholder	Roles and responsibilities
Ministry of Rural Reconstruction and Development (MRRD)	<p>The MRRD is the government agency mandated with improving rural infrastructure, enhancing local planning and management capacity, and promoting rural livelihoods. It is currently undertaking the majority of the government's off-grid and local power generation activities, largely through the large-scale National Area-Based Development Programme (NABDP), and to a lesser extent through the National Solidarity Programme (NSP). The NSP has established community development committees (CDCs) throughout Afghanistan, and these are the ideal structures through which the GEF Project will interact with the communities. The establishment of such structures will facilitate the ease of CBNRM planning for community forestry and integrated energy plans within the pilot areas. Furthermore, the GEF Project will interact with the MRRD to build capacity for CBNRM, SBES and REDD+/CDM activities to improve Afghanistan's ability to promote low-carbon sustainable development.</p> <p>Consequently, the provincial directorates of MRRD will lead the implementation of field-based activities under Component 3 as well as providing support to MAIL's implementation of interventions under Component 2. Provincial MRRD representatives, in participation with provincial- and district-level government, will lead the identification and engagement of CDCs and District Development Authorities (DDAs) to participate in the project's activities. Further, the integration of the project's activities into ongoing district-level planning, including management and sustainable use of natural resources and biomass fuels, will be facilitated by MRRD through the mechanisms established by the NABDP and NSP.</p> <p>At a national level, the representation of MRRD in the NPIU, PSC and SBEWG will support clear coordination of roles and responsibilities between project participants. MRRD will be the agency responsible for executing the activities related to dissemination of SBESs within Component 3 in close participation with MEW, with an emphasis on coordinating workplans and priority activities of both ministries. Close coordination between MRRD and MEW will be necessary throughout the project implementation period to ensure that the activities of the project, for example the choice of which SBESs are promoted, are relevant and aligned with national development goals related to renewable and rural energy.</p> <p>MRRD and MEW will be expected to contribute equally to institutional-strengthening activities under Component 1, most importantly: i) integrating CBNRM and sustainable biomass energy into existing strategies and ongoing development plans; ii) identifying technologies and approaches to be promoted by the project; iii) establishment of roadmap for promotion of SBES and CBNRM at a national level beyond the project implementation period; and contribution of existing data, information, best practice guidelines etc. that have been generated by past projects.</p>

Stakeholder	Roles and responsibilities
Ministry of Energy and Water (MEW)	<p>MEW is the national department mandated with managing Afghanistan's energy needs and has overseen significant improvements in national electricity production. MEW is an essential partner for this project to facilitate mainstreaming of efficient alternative energy systems based on biomass.</p> <p>MEW will contribute to policy revisions under Component 1 and assist in identifying appropriate renewable energy technologies to be promoted and disseminated in Component 3 with the execution of MRRD. The representation of MEW in the NPIU, PSC and SBEWG will be critical for clear coordination of roles and responsibilities between project participants.</p> <p>Close coordination between MRRD and MEW will be necessary throughout the project implementation period to ensure that the activities of the project, for example the choice of which SBESs are promoted, are relevant and aligned with national development goals related to renewable and rural energy. MRRD and MEW will be expected to contribute equally to institutional-strengthening activities under Component 1, most importantly: i) integrating CBNRM and sustainable biomass energy into existing strategies and ongoing development plans; ii) identifying technologies and approaches to be promoted by the project; iii) establishment of roadmap for promotion of SBES and CBNRM at a national level beyond the project implementation period; and contribution of existing data, information, best practice guidelines etc. that have been generated by past projects.</p>
Bremen Overseas Research and Development Association (BORDA)	<p>BORDA is an international organisation concerned with poverty alleviation, sustainable protection of natural resources, and the strengthening of social structures. As part of its mandate to provide access to electricity in remote rural villages, BORDA has implemented a number of biogas initiatives in Bamyan Province. Furthermore, BORDA was instrumental in the establishment of Afghanistan's Biogas Consortium in October 2014. The Biogas Consortium is a partnership between organisations that wish to promote, contribute to, and learn about the sustainable development of biogas in Afghanistan.</p> <p>BORDA will be a field-implementing partner for the GEF project and will provide technical support and guidance for renewable energy interventions. Consequently, BORDA will be invited to join the Sustainable Biomass Energy Working Group (SBEWG) and the Project Steering Committee.</p>
Mission d'Aide au Developpement des Economies Rurales en Afghanistan (MADERA)	<p>MADERA is an international organisation that has been promoting rural development in Afghanistan since 1988. MADERA – through the NSP – has supported 1267 CDCs implement community projects throughout Afghanistan and support for a further 435 CDCs is planned for 2015<sup>37</sup>. As part of its 2014–2017 strategic plan, MADERA aims to collaborate with complimentary forestry and CBNRM projects to reintroduce its agroforestry initiatives and continue with CBNRM interventions that have been in abeyance since 2013.</p> <p>Consequently, MADERA will be a field-implementing partner for the GEF project, providing technical support and guidance for CBNRM and forestry interventions. Furthermore, MADERA will be invited to join the SBEWG and PSC.</p>
UN Environment Programme (UNEP)	<p>UNEP has been consulted during the initial stages of the project design, and is an essential partner for providing technical assistance. UNEP PCDMB has provided ongoing technical support to NEPA in the management of MEA obligations and implementation of GEF and other projects in Afghanistan. UNEP's local office is currently providing executing support to NEPA for two other GEF projects.</p> <p>Consequently, UNEP will be invited to contribute to the PSC and SBEWG to improve coordination and sharing of information and best practices between initiatives. In 2015 UNEP will operationalise the Climate Technology Centre and Network (CTCN) for Afghanistan which will host the biomass energy information system created by the project.</p>

<sup>37</sup> MADERA Strategic Plan 2014–2017. Available at: <http://www.madera-asso.org/english/strategic-plan/strategic-plan-2014-2017-1/>. Accessed on : 09 December 2014.

Stakeholder	Roles and responsibilities
Kabul University	<p>Kabul University, in particular the Kabul University Renewable Energy Lab (KURE Lab), will be leading the technical analyses and studies of SBES technologies to support monitoring and evaluation of emission reductions, as well as producing published academic studies. Kabul University and KURE will also be invited to join the Sustainable Biomass Energy Working Group (SBEWG) and the Project Steering Committee (PSC).</p> <p>These measures will support detailed carbon monitoring in future projects and will establish capacity and reference data for national GHG monitoring.</p>
District Development Assemblies (DDAs); Community Development Councils (CDCs); and Forest Management Committees (FMCs)	<p>Local communities will be engaged with early in the PPG process, to identify relevant project implementation sites. DDAs will be consulted to identify communities represented by suitable CDCs and FMCs for project interventions.</p> <p>Community consultation will continue throughout project implementation. The planning, design and management of project activities under Component 2, such as CBNRM and SBES pilots, establishment of multiple-use community forests and associated sustainable land management plans, will include direct participation of local communities, through FMCs, in order to ensure community buy-in and the appropriateness of on-the-ground interventions to address real community needs.</p>
Private sector	<p>The GEF Project will include private sector enterprises by promoting and training identified local businesses and communities in the establishment of suitable SBES solutions. The cultivation of private sector enterprises will facilitate the upscaling and rolling out of successful SBES activities to the broader community subsequent to project completion.</p>

**B.2 Describe the socioeconomic benefits to be delivered by the Project at the national and local levels, including consideration of gender dimensions, and how these will support the achievement of global environment benefits (GEF Trust Fund/NPIF) or adaptation benefits (LDCF/SCCF):**

*National and household benefits*

The specific targets of the GEF project interventions are the communities of Salang District, Parwan and Dara-e-Noor, Nangahar. These populations are generally poor and particularly vulnerable to the effects of climate change. The GEF project aims to implement CBNRM plans to reduce local-level land degradation and deforestation across a spatial extent of at least 12,000 ha in each of the two project districts. The establishment of community forests and promotion of alternative livelihood schemes will reduce pressure on natural resources. In this way the project outcomes will increase community resilience through increasing the resilience of natural resources to extreme weather events and long term climate change patterns. Long term sustainable resource management will enhance the availability of other natural resources such as water, while reforestation through the establishment of community forests will provide the opportunity for livelihood diversification. Opportunities will be created through the sustainable use of natural provision of NTFPs, including honey, resin, mushrooms and medicinal plants, and through value-added processing, such as the production of furniture and crafts.

Project interventions will lead to a reduction in the amount of time spent gathering fuel within the target populations, by providing more efficient household use of energy (including through promoting of SBESs). This will provide communities with the opportunity to undertake alternative livelihood practices. Community members can then dedicate time to learning, whether by simply being able to spend more time in school or acquire additional skills directly applicable to CBNRM. Household expenditure on purchasing fuel inputs such as firewood, charcoal and oil-based fuels will be significantly reduced as a result of the improved efficiency of fuel use. Average annual household expenditure on these fuel sources is estimated to range from ~USD 750 – 1,800 per annum, which will be reduced by approximately half through adoption of SBESs (elaborated further in Appendix 9 of the Project Document).

Furthermore, clinical studies have demonstrated the direct health benefits gained from a shift from open fires to improved stoves and biogas, through a reduction in carbon monoxide inhalation and associated respiratory

illnesses<sup>38</sup>. A simple shift in home cooking and heating practices can therefore provide the dual role of improving health and reducing the workload associated with fulfilling family fuel requirements. The project will distribute a minimum of 1800 stoves and 120 biogas digesters, thereby improving the health of at least 1920 households (~14,000 people) across the project implementation sites. As stated previously, providing community members with training on producing, repairing and selling fuel-efficient stoves and biogas digesters will support further upscaling of appropriate technologies, thereby leading to improved health beyond the project's implementation period and sites.

A further benefit of using SBESs will result from the reduced reliance on animal dung for energy requirements. This will lead to an increased availability of manure for fertiliser, enhancing potential agricultural yields within project areas. Furthermore, the empowerment of local community members to manufacture SBESs will allow some community members to supplement their income, thereby reducing dependence on subsistence farming.

The GEF project, in line with the National Action Plan for the Women of Afghanistan, as well as United Nations Development Assistance Framework and GEF guidance, will engage women in the planning and implementation of both local- and national-level project activities. In particular, as the primary end-users of SBESs, the input of women into the design of project activities is particularly relevant. Furthermore, women are likely to be responsible for the operation and maintenance of biogas digesters. Therefore, wherever possible the project will prioritise the participation of women in activities which are culturally appropriate. NEPA and other relevant government agencies (MAIL, MEW and MRRD) have already committed to working to increase the participation of women in natural resource management and governance, and the GEF project will facilitate this process through its capacity-building activities. The District Development Authorities are represented by both male and female members (~30% female) and as a result the project will emphasise close engagement with DDAs as a mechanism to support the inclusion and representation of women in the project's activities.

### **B.3. Explain how cost-effectiveness is reflected in the project design:**

The GEF project's interventions have been designed to be as cost-effective as possible and to achieve sustainable results by leveraging substantial baseline investments from both the forestry and rural development sectors. The strong focus on implementing field-based activities through participating communities will allow the project to benefit from labour contributions from communities, in alignment with the approach of the NSP and NABDP. Additionally, the leading role that communities will play in the selection of activities to be implemented till support local 'buy-in' and therefore improve the sustainability of the project.

Several alternative designs and approaches were considered for cost-effectiveness during project design, particularly with respect to potential approaches that could be applied to forest/natural resource management interventions and the choice of specific SBESs to be promoted. The project's approach of mitigating GHG emissions – namely through conservation and improved management of forest resources and increasing the efficiency of biomass fuel use – can be considered to be “no-regrets” investments which will generate multiple co-benefits at the project demonstration sites. Emissions from the LULUCF sector account for the majority of Afghanistan's GHG emissions. Other major sources of GHG emissions include electricity generation based on fossil fuels and the transport sector. Alternative approaches to reducing GHG emissions which could be considered in Afghanistan include: i) promotion of renewable energy technologies such as off-grid solar PV and micro-hydro power; ii) increased efficiency of electricity generation and usage; and iii) substitution of fuels used in the transport sector.

Previous studies have emphasised the importance of sustainable forest management, forest conservation and afforestation as cost-effective approaches for mitigating against climate change, although noting the variability in costs and total mitigation potential between different project instances. A meta-analysis undertaken by Valatin and

<sup>38</sup> Clark, M.L., Peel, J.L., Burch, J.B., et al. (2009) Impact of improved cookstoves on indoor air pollution and adverse health effects among Honduran women. *International Journal of Environmental Health Research* 19, 5 (2009), 357–368 [Online] DOI: 10.1080/09603120902842705

Price (2013)<sup>39</sup> found that cost-effectiveness of GHG mitigation through forest management could range from ~\$2 - \$150/tCO<sub>2</sub>e. By contrast, the promotion of household-scale (i.e. off-grid) solar PV systems was found to be comparatively less cost-effective, with estimated costs ranging from ~\$100 - \$576/tCO<sub>2</sub>e (assuming a lifespan of 40 years).

A second meta-study provides comparison between multiple mitigation strategies available to policy-makers and assessed the relative cost-effectiveness of the various approaches<sup>40</sup>. The latter study estimated the cost-effectiveness of afforestation/reforestation activities to be ~\$20/tCO<sub>2</sub>e. Of the forms of renewable energy assessed, biomass-based energy systems such as anaerobic biogas digestion was estimated to be ~\$40/tCO<sub>2</sub>e. Wind, solar thermal and micro-hydropower were found to be increasingly expensive per unit of CO<sub>2</sub>e at ~\$80, \$90 and \$100/tCO<sub>2</sub>e. Consequently, the promotion of efficient biomass use of biomass energy and promotion of carbon sequestration in the LULUCF sector has been demonstrated to be particularly cost-effective in several different contexts, although both meta-studies also note that the total global potential of the more expensive renewable energy technologies is considerably greater.

Several design features of the project's activities have been specifically included to increase cost-effectiveness and sustainability of the project's investments. The GEF project's forestry interventions will focus primarily on restoration and regeneration through sustainable management practices, rather than reforestation through replanting. The former is considerably cheaper, as it does not necessitate nurseries, irrigation or intensive site-preparation and is reliance on transferring skills and practices to the communities responsible for forest management. Furthermore the approach of promoting recovery of existing forest stocks will result in immediate results whereas the approach of reforestation/enrichment planting necessitates some delays in producing, planting and establishing seedlings. However, although the primary focus of the project's field-based activities will be on natural forests and woodlands, there is still potential to promote the establishment of woodlots to provide supplementary woodfuel at selected sites. This approach is considerably cheaper than reforestation/afforestation, for several reasons including: i) reduced spacing of woodlots, relative to plantations and natural forests, reduces the opportunity cost of using land; ii) the costs of establishment are lower because there is no need to transport and transplant seedlings to plantation sites, and seedlings can be raised and managed close to the homestead; and iii) no extensive protection measures are needed.

The inclusion of communities in the monitoring and inventories of forest areas under Component 2 is considered to be a particularly cost-effective approach to assessing the impacts of the project's interventions. Previous assessments of community-based forestry stocktaking and monitoring has proven to be at least as accurate as that undertaken by professional service providers<sup>41</sup>, and is considerably more cost-effective. The GEF project will make use of this method to account for biomass gains in community forests. The method is easily taught to people with between 4 – 7 years of primary school education. Steps include boundary mapping, identifying forest strata, pilot survey of estimating variance, laying out and recording the location of permanent plots, and measuring the biomass within each.

The GEF project's interventions primarily focus on management practices. Therefore, procurement will not be a major cost component. Those materials which are required, primarily for construction of SBESs, will be sourced from local suppliers to reduce costs while contributing to the development of local economies. The project will dedicate resources to training local artisans to ensure that workmanship is of good quality. Under Component 3, household bio-digesters will be fabricated *in situ* (on-site) by local artisans, rather than transporting prefabricated units from Kabul to target communities, which reduces the cost of this intervention by ~50%. Also under this component, FECSS will be produced by local artisans from local materials at a cost of less than ~US\$50 per unit.

<sup>39</sup> Valatin, G. Price, C. (2013). How cost-effective is forestry for climate change mitigation? Centre for Ecosystems, Society and Biosecurity, Forest Research, Scotland. [http://www.forestry.gov.uk/pdf/Bookchapter-Cost\\_effectiveness\\_of\\_forestry.pdf/\\$FILE/Bookchapter-Cost\\_effectiveness\\_of\\_forestry.pdf](http://www.forestry.gov.uk/pdf/Bookchapter-Cost_effectiveness_of_forestry.pdf/$FILE/Bookchapter-Cost_effectiveness_of_forestry.pdf)

<sup>40</sup> Swecney, J. A Cost-effectiveness Analysis of AB 32 Measures. Undated presentation. Precourt Institute for Energy Efficiency, Stanford University.

<sup>41</sup> Skutsch, M.M., van Laake, P.E., Zahabu, E.M., Karky, B.S and Phartiyal, P., 2009, Realising REDD+ - National strategy and policy options, Chapter 8: Community Monitoring in REDD+, pp. 103 – 105, ed: Angelsen, A, CIFOR

The project will disburse SBESs at a partially subsidised rate, which will support a cost-effective balance between incentivising adoption of subsidised technology while encouraging communities to make their own cash contributions, thereby supporting 'buy in'. By buying the product, a household is incentivised to make full use of the investment. In comparison, when an item is gifted its value may not be appreciated and the motivation to learn how to use it can be lacking.

The project's proposed approach to procurement of technical skills and service providers will focus on the involvement of well-capacitated and experienced NGOs to act as technical service providers. This approach will minimise the costs allocated to international consultancy fees and travel by prioritising national expertise where available. Notwithstanding, where international expertise is unique or exceptionally credible, it will be utilised. Only where the difference in cost is determined to be justified by the increase in value of knowledge, or the requisite skill is not available within Afghanistan, will the international expert be sought. This approach will rely strongly on soliciting the participation of NGOs such as BORDA and MADERA who have the benefit of experienced international and local staff, established presence and familiarity to local communities, and extensive stakeholder contacts.

Another cost-effective design feature is the selection of pilot districts that are relatively accessible and have existing infrastructure to support implementation. The provincial coordination units will be hosted at government facilities, thereby reducing the costs for establishing and renting office space. The FAO has an existing presence, infrastructure and capacity in Nangerhar with a field office in Jalalabad, in addition to their ongoing dairy project in Parwan. Both pilot regions are relatively accessible from Kabul by car (both districts) and by plane (Jalalabad).

### **C. DESCRIBE THE BUDGETED M & E PLAN:**

Monitoring and evaluation of progress in achieving project results and objectives will be done based on the targets and indicators established in the Project Results Framework. The project M&E Plan has been budgeted at US\$55,000. M&E activities will follow FAO and GEF M&E policies and guidelines. Integrated into all Outcomes, the Project M&E approach will also facilitate learning and mainstreaming of project outcomes and lessons learned into international good practice as well as national and local policies, plans and practices. In addition to these budgeted M&E activities, the regular monitoring and reporting of the project's progress towards targets related to GHG emission reductions will be the primary responsibilities of the international and national carbon monitoring experts, who will be tasked with collecting and compiling data to inform reporting on GHG emission reduction targets.

#### ***C.1 Oversight and monitoring responsibilities***

The M&E tasks and responsibilities clearly defined in the Project's detailed Monitoring Plan (see below) will be achieved through: (i) day-to-day monitoring and supervision of project progress (NPIU and PCU offices); (ii) technical monitoring of carbon benefits and ecosystem "status" indicators (NPIU and PCU offices in coordination with other relevant participating technical units at provincial and district level); (iii) specific monitoring plans for carbon sequestration and emissions avoided (NPIU and PCU with support from local communities and other stakeholders); (iv) midterm and final evaluations (independent consultants and FAO Evaluation Office); and (v) continual oversight, monitoring and supervision missions (FAO).

At the initiation of implementation of the GEF Project, the NPIU will set up a project progress monitoring system. Participatory and gender-sensitive mechanisms and methodologies for systematic data collection and recording will be developed in support of outcome and output indicator M&E.

The Project's Inception Phase begins upon FAO approval of the Project and signature of the Execution Agreement. During the three-month inception phase, specific Project M&E issues will be refined and subsequently discussed at the Inception Workshop (IW): (i) the Project's RF indicator targets and their means of verification, and assumptions and risks; (ii) the M&E indicators and their baseline; (iii) drafting the required clauses to include in consultants' ToRs to ensure they complete their M&E reporting functions (if relevant); and (iv) provision of a detailed overview of reporting, M&E requirements and the respective M&E tasks among the project's different stakeholders; (v) based on the Project RF and the relevant GEF Tracking Tools, finalisation of the first annual work plan; (vi) financial reporting procedures

and obligations, and arrangements for annual audit; (vi) schedule of PCC meetings. Roles and responsibilities of all project organisation structures will be clarified and meetings planned.

The Inception Phase will conclude with the holding of an Inception Workshop (IW) organised by the NPIU. The IW will: (a) assist all stakeholders to fully understand and take ownership of the Project; (b) review and confirm/finalise Project indicators and results framework with stakeholders; (c) Review the Project's first AWP with results-based annual budget; (d) discuss the roles, functions, and responsibilities within the Project's decision-making structures; (e) review a detailed M&E work plan and budget based on the M&E plan summary presented in Table 16 below. The first PSC meeting will be held within the two months of the IW.

The day-to-day monitoring of the Project implementation will be the responsibility of the NPIU under the leadership of the NPC, and supported by the CTA. One NPIU staff member will be clearly mandated to be responsible for Project M&E. M&E is to be driven by the preparation and implementation of an AWP/B followed up through six-monthly PPRs. The preparation of the AWP/B and semi-annual PPRs will represent the product of a unified planning process between main project partners. As tools for results-based-management, the AWP/B will identify the actions proposed for the coming project year and provide the necessary details on output targets to be achieved, and the PPRs will report on the monitoring of the implementation of actions and the achievement of output targets.

Following the approval of the Project, the project's first year AWP/B will be adjusted (either reduced or expanded in time) to synchronise it with an annual reporting calendar. In subsequent years, the FSP work plan and budget will follow an annual preparation and reporting cycle as specified in section 4.5.3 below.

### *C.2 Indicators and information sources*

The project's result-based framework (RF) indicators will be the main reference point for M&E of Project outcomes, including contributions to global environmental benefits (see Appendix 1). The RF's indicators and means of verification will be applied to monitor Project performance and impact. Data collected will be of sufficient detail to track outputs and outcomes and flag Project risks early on, using FAO's monitoring procedures and progress reporting formats. The NPIU will link each AWP/B to the RF indicators to ensure that Project implementation maintains a focus on achieving the impact indicators as defined. An important element to this will be the elaboration and monitoring of output target indicators in each AWP/B that cumulatively lead to outcome level results. Output targets will be monitored on a semi-annual basis and outcome target indicators will be monitored on an annual basis if possible or as part of the mid-term and final evaluations.

The main sources of information to support the M&E programme will be: i) participatory progress monitoring and workshops with beneficiaries; ii) on-site monitoring of the implementation of forest management plans; iii) PPRs prepared by the NPIU; iv) consultants reports; v) participants training tests and evaluations; vi) mid-term and post project impact and evaluation studies completed by independent consultants; vii) financial reports and budget revisions; viii) PIR prepared by the LTO supported by the BH and the NPIU; and ix) FAO supervision mission reports.

### *C.3 Reporting schedule*

Specific reports that will be prepared under the M&E program are: i) Project inception report; ii) Annual Work Plan and Budget (AWP/B); iii) Project Progress Reports (PPRs); iv) annual Project Implementation Review (PIR); v) Technical Reports; vi) co-financing reports; and vii) Terminal Report. In addition, assessment of the GEF Monitoring Evaluation Tracking Tools (METTs) against the baseline (completed during project preparation) will be required at midterm and final project evaluation.

**Project Inception Report.** Immediately after the Inception Workshop (IW), the NPIU will prepare a project inception report in consultation with the LTO, BH and other project partners. The report will include a narrative on the institutional roles and responsibilities and coordinating action of project partners, progress to date on project establishment and start-up activities and an update of any changed external conditions that may affect project implementation. It will also include a detailed first year AWP/B, a detailed project monitoring plan based on the M&E plan summary presented in section 4.5.4 below. The draft inception report will be circulated to the LTO and for review and comments before its finalisation, no later than one month after project start-up. The report should be cleared by the FAO BH, LTO and the FAO GEF Coordination Unit and uploaded in FPMIS by the BH.

**Results-based Annual Work Plan and Budget (AWP/B).** The draft of the first AWP/B will be prepared by the NPIU in consultation with the Project Task Force and reviewed at the project Inception Workshop. The IW inputs will be incorporated and the NPIU will submit a final draft AWP/B within two weeks of the IW to the BH. For subsequent AWP/B, the NPIU will organise a project progress review and planning meeting for its review. Once comments have been incorporated, the BH will circulate the AWP/B to the LTO and the GEF Coordination Unit for comments/clearance prior to uploading in FPMIS by the BH. The AWP/B must be linked to the project's Results Framework indicators so that the project's work is contributing to the achievement of the indicators. The AWP/B should include detailed activities to be implemented to achieve the project outputs and output targets and divided into monthly timeframes and targets and milestone dates for output indicators to be achieved during the year. A detailed project budget for the activities to be implemented during the year should also be included together with all monitoring and supervision activities required during the year. The AWP/B should be approved by the Project Steering Committee and uploaded on the FPMIS by the BH.

**Project Progress Reports (PPR):** PPRs will be prepared based on the systematic monitoring of output and outcome indicators identified in the project's Results-based Framework (Appendix 1). The purpose of the PPR is to identify constraints, problems or bottlenecks that impede timely implementation and to take appropriate remedial action. In consultation with the Project Task Force, the NPIU will prepare semi-annual PPRs and submit them to the BH and LTO in a timely manner. PPRs will be prepared based on the systematic monitoring of output and outcome indicators identified in the Project Results Matrix. They will also report on projects risks and implementation of the risk mitigation plan. The BH and LTO will review the progress reports and circulate them to the FAO Project Task Force and GEF Coordination Unit for comments and clearance. In the event of LTO/GEF Coordination Unit comments, the PMO will incorporate them and the revised PPR is re-submitted to the LTO for final endorsement. The BH will submit the draft final version of each PPR to the GEF Coordination Unit for final approval and uploading on the FPMIS. The six-monthly PPRs will be submitted to the GEF Coordination Unit as follows:

- the period 1 January – 30 June and to be submitted no later than 31 July;
- the period 1 July – 31 December to be submitted no later than 31 January.

**Annual Project Implementation Review (PIR):** The LTO supported by the NPIU and BH, will prepare an annual PIR covering the period July (the previous year) through June (current year) to be submitted to the GEF Coordination Unit for review and approval **no later than 31 July**. The FAO GEF Coordination Unit will clear and submit it to the GEF Secretariat and GEF Evaluation Office as part of the Annual Monitoring Review report of the FAO-GEF portfolio. The GEF Coordination Unit will provide the updated format when the first PIR is due. PIRs will be uploaded on the FPMIS by the GEF Coordination Unit.

**Technical Reports:** Technical reports will be prepared as part of project outputs and to document and share project outcomes and lessons learned. The drafts of any technical reports must be submitted by the NPIU to the BH who will share it with the LTO. The LTO will be responsible for ensuring appropriate technical review and clearance of said report. The BH will upload the final cleared reports onto the FPMIS. Copies of the technical reports will be distributed to project partners and the Project Steering Committee as appropriate.

**Co-financing Reports:** The BH, with support from the NPIU, will be responsible for collecting the required information and reporting on in-kind and cash co-financing as indicated in the Project Document/CEO Request. The NPIU will compile the information received from the executing partners and transmit it in a timely manner to the LTO and BH. The report, which covers the period 1 July through 30 June, is to be submitted on or before 31 July and will be incorporated into the annual PIR. The format and tables to report on co-financing can be found in the PIR.

**GEF-5 Tracking Tools:** Following the GEF policies and procedures, the GEF-5 climate change mitigation (CCM) tracking tools will be submitted at three moments: i) with the project document at CEO endorsement; ii) at the project's mid-term evaluation; and iii) with the project's terminal evaluation or final completion report. At project mid-term and end, the tracking tool will be completed by the NPIU in close consultation with the NPD and the LTO.

**Terminal Report:** Within two months before the end date of the project, the NPIU will submit to the BH and LTO a draft Terminal Report. The main purpose of the Terminal Report is to give guidance at ministerial or senior government level on the policy decisions required for the follow-up of the project, and to provide the donor with information on how the funds were utilised. The Terminal Report is accordingly a concise account of the main products, results, conclusions and



recommendations of the project, without unnecessary background, narrative or technical details. The target readership consists of persons who are not necessarily technical specialists but who need to understand the policy implications of technical findings and needs for insuring sustainability of project results. Work is assessed, lessons learned are summarised, and recommendations are expressed in terms of their application to Afghanistan's ongoing work on sustainable CBNRM, renewable energies, and CCM in the context of its development priorities, as well as in practical execution terms. This report will specifically include the findings of the final evaluation. A final project review meeting should be held to discuss the draft Terminal Report before it is finalised by the NPIU and approved by the FAO LTO and the GEF Coordination Unit.

#### *C.4 Monitoring and evaluation plan summary*

##### *Summary of the main M&E reports, responsible parties and timeframe.*

Type of M&E Activity	Responsible Parties	Time-frame	Budgeted costs
Inception Workshop	NPIU supported by the FAO LTO, BH, and the GEF Coordination Unit	Within two months of project start up	US\$5,000
Project Inception Report	NPIU cleared by FAO LTO, BH, and the GEF Coordination Unit	Immediately after workshop	-
Supervision visits and rating of progress in PPRs and PIRs	NPIU, FAO LTO and TCI/GEF Coordination Unit	Annual or as required	The visits of the FAO LTO and the GEF Coordination Unit will be paid by GEF agency fee. The visits of the NPM/NPIU will be paid from the project travel budget
Project Progress Reports	NPIU, with inputs from Field Offices and other partners	Six-monthly	-
Project Implementation Review report	LTO supported by the NPIU and BH and cleared and submitted by the GEF Coordination Unit to the GEF Secretariat	Annual	Paid by GEF agency fee
Co-financing Reports	BH with inputs from NPIU	Annual	Paid by GEF agency fee
Technical reports	NPIU, LTO and uploaded on the FPMIS by the BH	As appropriate	-
GEF LD, LULUCF and REDD+ Tracking Tools	NPIU and LTO	Updated at the time of the mid-term evaluation and final evaluation	GEF fee
Two annual review workshops (Years 1 and 2).	FAO Evaluation Office (OEDD) in consultation with the FAOR/Afghanistan, GEF Coordination Unit and project team	After Year 1 and Year 2 of project implementation	US\$5,000 each for two annual review workshops and delivery of review reports (US\$10,000 total). The agency fee will pay for expenditures of FAO staff time and travel.
Final evaluation	FAO Evaluation Office (OEDD) in consultation with the FAOR/Afghanistan, GEF Coordination Unit and project team	At the end of project implementation	US\$30,000 for external consultant. In addition the agency fee will pay for expenditures of FAO staff time and travel
Terminal Report	NPIU, LTO, GEF Coordination Unit, TCSR Report Unit	At least two months before the end date of the Execution Agreement	US\$10,000
Total			US\$55,000

#### *C.5 Provision for Evaluations*

The progress of the project towards achieving targeted outcomes will be assessed on an annual basis during annual review workshops, held at the end of the first and second years of implementation. These workshops will focus on assessing progress and effectiveness of implementation in terms of achieving Project objectives, outcomes, and outputs.

Findings and recommendations of these evaluation workshops will be instrumental for bringing improvement in the overall project design and execution strategy for the remaining period of the project's term if necessary. FAO will arrange for the review workshops in consultation with project management. The review workshops will, *inter alia*:

- review the effectiveness, efficiency and timeliness of project implementation;
- analyse effectiveness of partnership arrangements;
- identify issues requiring decisions and remedial actions;
- propose any mid-course corrections and/or adjustments to the implementation strategy as necessary; and
- highlight technical achievements and lessons learned derived from project design, implementation and management.

An independent final evaluation will be carried out three months prior to the terminal review meeting of the project partners. The final evaluation would aim to identify the project impacts and the sustainability of project results and the degree of achievement of long-term results. This evaluation would also have the purpose of indicating future actions needed to expand on the existing project in subsequent phases, mainstream and up-scale its products and practices, and disseminate information to management authorities responsible for related issues to ensure replication and continuity of the processes initiated by the project.

**PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)**


**A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT(S) ON BEHALF OF THE GOVERNMENT(S):**  
(Please attach the Operational Focal Point endorsement letter(s) with this form. For SGP, use this OFP endorsement letter).

A letter signed by Mr. Mostapha Zaher, dated May 20, 2013 was submitted at the PIF stage.

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
Mr Mostapha Zaher	Director General & GEF Operational Focal Point	NATIONAL ENVIRONMENTAL PROTECTION AGENCY	20 MAY 2013

**B. GEF AGENCY(IES) CERTIFICATION**

This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for CEO endorsement/approval of project.

Agency Coordinator, Agency Name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
Gustavo Merino Director, Investment Centre Division Technical Cooperation Department FAO Viale delle Terme di Caracalla (00153) Rome, Italy TCI-Director@fao.org		27 July 2015	Tim Vaessen FAO Afghanistan		Tim.Vaessen@fao.org
Jeffrey Griffin Senior Coordinator FAO GEF Coordination Unit Investment Centre Division Technical Cooperation Department FAO Viale delle Terme di Caracalla (00153) Rome, Italy			Sameer Karki FAO GEF Coordination Unit Investment Centre Division Technical Cooperation Department FAO Viale delle Terme di Caracalla (00153) Rome, Italy	(+39) 06 570 52386	Sameer.karki@fao.org

## ANNEX A: PROJECT RESULTS FRAMEWORK

**Project Objective:** To reduce GHG emissions by promoting community forestry, and removing barriers to sustainable biomass energy, while laying the groundwork for climate change mitigation in Afghanistan.

		Milestones towards achieving output and outcome targets			
Objectives	Indicator	Baseline	Mid-term	Final	Assumptions
Objective. To reduce GHG emissions by promoting community forestry, and removing barriers to sustainable biomass energy, while laying the groundwork for climate change mitigation in Afghanistan	Quantity of GHG emissions reduced from LULUCF sector	The estimated emissions of GHGs resulting from LULUCF activities are estimated to be ~373,000 and 123,000 tCO <sub>2</sub> e/year in Nangerhar and Parwan provinces, respectively. Within proposed project areas of 12,000 ha in each district, annual GHG emissions from LULUCF activities are ~5,786 and 2,477 tCO <sub>2</sub> e/yr in Dara-e-Noor and Salang, respectively.	Net annual GHG emissions from LULUCF activities are reduced by 100% relative to the baseline, equivalent to ~5,786 and 2,477 tCO <sub>2</sub> e/yr in Dara-e-Noor and Salang, respectively.	GHG emissions resulting from avoided deforestation/degradation, forest enrichment and establishment of woodlots reduced by 100% relative to the baseline in two (2) pilot areas of 12,000 ha each. This is equivalent to ~17,358 and 7,433 tCO <sub>2</sub> e in the three years of project implementation in Dara-e-Noor and Salang, respectively.	<ul style="list-style-type: none"> <li>- Comparison of land cover by analysis of satellite imagery;</li> <li>- Bi-annual monitoring reports submitted by International and National Carbon Monitoring Experts;</li> <li>- Bi-annual updates and annual reports by Technical Service Provider.</li> </ul>
	Number of households in pilot areas to adopt sustainable biomass energy systems (SBES) demonstrated and researched by the project.	Multiple previous initiatives have promoted technologies and approaches for sustainable biomass fuel use. However there is a low rate of adoption of these technologies and limited availability of data to estimate fuel use efficiency and GHG mitigation potential.	At least 230 households adopting one or more of the SBESs promoted and demonstrated in pilot areas.	At least 1920 households adopting one or more of the SBESs promoted and demonstrated in pilot areas.	<ul style="list-style-type: none"> <li>- Completed assessments and academic studies on technical performance of SBESs trialled;</li> <li>- Financial reporting on procurement of materials for SBESs;</li> <li>- Bi-annual updates and annual reports by Technical Service Provider.</li> </ul>
	Quantity of GHG emissions reduced from biomass energy use.	Annual emissions of GHGs from biomass fuel use is estimated to be ~9.0 and 15.8 tCO <sub>2</sub> e per household in Nangerhar and Parwan provinces, respectively.	~2,239 tCO <sub>2</sub> e resulting from promotion and adoption of SBES in at least ten (10) CDCs	GHG emission reductions resulting from adoption of SBESs in at least twenty (20) CDCs are estimated to be ~10,298 tCO <sub>2</sub> e during the project	<ul style="list-style-type: none"> <li>- Bi-annual monitoring reports submitted by International and National Carbon Monitoring Experts;</li> <li>- Completed assessments</li> </ul>
					<ul style="list-style-type: none"> <li>- Project's activities will continue to be a priority despite possible changes in Government and political stability.</li> <li>- Project coordination and establishment of steering committee is prioritized at the implementation phase.</li> <li>- Budget and staff allocations from line ministries are adequate to ensure logistic and technical support.</li> <li>- The GoIRA is committed to integrating SFM and SBES into decision-making and policy. Policy, institutional and regulatory reform processes in the forestry and renewable energy</li> </ul>

		<p>Within proposed project areas of ~20,000 households, annual GHG emissions from biomass fuel use is estimated to be ~179,723 and 315,911 tCO<sub>2</sub>e/yr in Dara-e-Noor and Salang, respectively.</p>		implementation period.	<p>and academic studies on technical performance of SBESs trialled;  - Minutes/notes of meetings with CDC representatives;  - Bi-annual updates and annual reports by Technical Service Provider.</p>	<p>sectors continue to receive government support at the highest level</p> <p>Relevant training and capacity building of government staff delivered in a timely manner and low turnover of trained staff</p>
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## Component 1

		Milestones towards achieving output and outcome targets			
Outcome	Indicator	Baseline	Mid-term	Final	Assumptions
Outcome 1. The CBNRM approach and sustainable biomass energy systems have been mainstreamed into national policies and frameworks for renewable energy and forestry.	1.1 Number of national policies and sectoral strategies that promote CBNRM and sustainable use of biomass energy.	Community-based Natural Resource Management (CBNRM) and sustainable biomass energy systems (SBES) are noted within policies for Forestry and Renewable Energy, respectively, however, existing policies are sector-specific and uncoordinated. Furthermore, the existing national policies are not widely implemented at the sub-national level, for example, promotion of CBNRM and increasing access to SBES are not prioritised in pilot district development plans.	Strategic recommendations are provided to support implementation of integrated SBES and CBNRM planning within at least three strategic/planning documents, including the Renewable Energy Strategy and Action Plan; the National Forest Management Plan; and the Renewable Rural Energy Strategy - promote integrated SBES and CBNRM planning	At least three strategic/planning documents - including the revised Renewable Energy Strategy and Action Plan; the National Forest Management Plan; and the Renewable Rural Energy Strategy - promote integrated SBES and CBNRM planning	Central, national-level stakeholders continue to commit time and resources to relevant line activities.  Low rate of turnover of senior representatives and staff of stakeholder agencies.  Project's activities will continue to be a priority despite possible changes in Government and political stability.
	1.2 A national roadmap to promote sustainable biomass energy systems in alignment	At present there is no national-level promotion of integrated planning of biomass energy systems in alignment with principles of CBNRM. Furthermore there is no	Draft roadmap available for stakeholders' inputs and discussions	A roadmap for sustainable biomass energy systems in alignment with CBNRM principles that includes establishment of milestones and	The GoIRA and other stakeholders support M&E processes, and are committed to continuous learning and exchange of knowledge on SFM and SBES..
				Completed roadmap and presentation of roadmap recommendations to national-level policy-makers	

with CBNRM principles.	strategy to address shortfalls in funding and capacity.		deliverables, to promote investment in CBNRM and SBES.	
1.3 Cross sectoral institutional government mechanism to promote sustainable biomass energy use.	There is a need to establish a cross-sectoral working group of stakeholders to improve coordination between ongoing initiatives, and to promote sharing of best practices, related to sustainable biomass energy and natural resource management.	A cross-sectoral national-level working group on sustainable biomass energy (SBEWG) is established and meets at least twice a year.  An annual report submitted by SBEWG on strategic recommendations to support implementation of integrated SBES and CBNRM planning within national and provincial planning and national climate change response.	An cross-sectoral national-level working group on sustainable biomass energy institutionalised within government and generating annual strategic recommendations to support implementation of integrated SBES and CBNRM.	<ul style="list-style-type: none"> <li>- Minutes of meetings by SBEWG;</li> <li>- Annual reports by SBEWG.</li> </ul>
1.4 Number of knowledge products available through the project's biomass energy information system.	At present there is no centralised platform for compiling and disseminating data and best-practice guidelines to support initiatives related to CBNRM and SBES.	At least <b>one (1)</b> technical report and <b>one (1)</b> popular/grey literature article publicly available through the biomass energy information system.	At least: i) <b>two (2)</b> technical reports and <b>two (2)</b> popular/grey literature article on SBES generated from Component 3; ii) <b>two (2)</b> policy briefs generated from Output 1.1.1; and iii) <b>two (2)</b> training protocols for selecting, operating and maintaining SBESs, generated under Component 3; publicly available through the biomass energy information system.	<ul style="list-style-type: none"> <li>- Monitoring of website traffic/visitors to the biomass energy information system;</li> <li>- Publicly available knowledge products via biomass energy information system.</li> </ul>

## Component 2

Milestones towards achieving output and outcome targets					
Indicator	Baseline	Mid-term	Final	Means of Verification	Assumption
<b>Outcome 2</b> The CBNRM approach has been incorporated in targeted areas at a district scale	2.1 Number of provincial and district-level government and CDCs with capacities to promote and implement CBNRM and SFM	<p>At present there is no training provided to MAIL and NEPA staff to promote CBNRM, and awareness of sustainable biomass-based energy systems is relatively low. There is no standard training protocol or information on CBNRM and SBES for government extension staff.</p> <p>Currently there are a total of six (6) FMCs established within pilot project districts, none of which have received training or capacity-building, and none of which have submitted or implemented CBNRM plans.</p>	<p>- One completed first draft of training toolkit for government extension officers on integrated CBNRM and SFM.</p> <p>- One completed first draft of training toolkit for households and CDC representatives on community-based approaches to NRM and SFM.</p>	<p>- At least <b>thirty (30)</b> government technical extension staff in pilot provinces, including at least five (5) each from MAIL, MRRD, NEPA, trained on CBNRM, principles of SFM, and promotion of SBES.</p> <p>- Representatives of at least <b>twenty (20)</b> CDCs are trained on establishment of FMCs and implementation of CBNRM plans in each of two (2) pilot districts.</p>	<p>Security and stability in the pilot sites is adequate to support implementation of the project's activities.</p> <p>Local communities and representatives of local committees are willing to implement new approaches to sustainable management of natural resources.</p>
	2.2 Number of CBNRM plans developed and implemented in pilot districts.	<p>At present, CBNRM plans are not actively implemented by FMCs in pilot areas.</p> <p>At present there are five (5) FMCs established in Dara-e-Noor with management plans established across 12,000 hectares, however the status of implementation of these management plans is unknown. There is one (1) FMC established in Salang district, however at present</p>	<p>- A total of at least five (5) FMCs have developed CBNRM plans for implementation.</p> <p>- Participatory mapping of forest and other natural resources, and identification of activities to be included in CBNRM plans, undertaken by at least <b>five (5)</b> existing FMCs.</p>	<p>- CBNRM plans, including establishment of FMCs and forest use rights, are developed in two (2) pilot districts, and approved at CDC, district, provincial and central (MAIL) levels.</p> <p>- A total of at least <b>ten (10)</b> FMCs are actively implementing CBNRM plans with the support of MAIL and NEPA</p>	<p>- Maps of forest areas produced in participation with FMC members;</p> <p>- Formally registered FMCs;</p> <p>- Completed CBNRM plans submitted to MAIL;</p> <p>- Bi-annual updates and annual reports by Technical Service</p> <p>Provincial and district-level government representatives are willing and committed to delivering the project's outcomes.</p> <p>Community representatives as well as provincial</p>



				<p>extension officers.</p>	<p>Provider.</p> <ul style="list-style-type: none"> <li>- Bi-annual updates and annual reports by Technical Service Provider;</li> <li>- Annual update reports from Provincial Coordination Units (PCUs) submitted to MAIL;</li> <li>- Inclusion of CBNRM plans in updated District Development Plans.</li> </ul>	<p>and district-level government staff are provided with adequate training and capacity-building.</p> <p>Low rate of turnover of experienced/skilled government staff.</p>
			<p>this FMC has not submitted or implemented any planned CBNRM activities.</p>			

### Component 3

Milestones towards achieving output and outcome targets					
	Indicators	Baseline	Mid-term	Final	Means of verification
Outcome 3 Innovative and sustainable biomass energy technologies tested and deployed in two pilot areas.	3.1 Increased capacity among provincial planning and governmental agencies to plan, promote and implement sustainable biomass energy projects	At present there are no training programmes or toolkits to train or increase the capacity of government technical staff to design, implement and manage community-based projects related to forestry and bio-energy.  There are no training materials or programmes focused on increasing capacity of community members to adopt CBNRM and SBES practices	- Awareness-raising strategy and first drafts of two (2) training toolkits developed, targeted to the needs and capacity of SBES users, government extension staff and community members, respectively.	- Two (2) updated training modules and toolkits, tailored to the specific needs and capacity of government extension staff and community members, developed and implemented.  - A total of at least <b>thirty (30)</b> government technical extension staff in pilot provinces, trained on integrated planning and management of biomass energy resources, including through promotion of SBES and CBNRM.	- Completed training toolkit; - Training workshop attendance registers; - Bi-annual updates and annual reports by Technical Service Provider. - Summary presentations provided by internationally trained bio-energy experts to SBEWG and NPTU.
	3.2 Number people with capacity in pilot areas to design, construct, market, operate and maintain	At present there are no training programmes to assist CDC members to access and adopt SBES. There is a low level of	- At least <b>10 CDCs</b> , including both men and women's groups, provided with training on the benefits and	- At least <b>four (4)</b> government technical staff trained through an international training of trainers' programme on bioenergy through CAS.  - Representatives of at least <b>forty (40)</b> CDCs, including both men and women's groups, will benefit from activities related to awareness-	- Training workshop attendance registers; - Bi-annual updates and annual reports by Technical Service Provider.  - Provincial and district-level government representatives are willing and committed to delivering the project's outcomes.  Community representatives as well as provincial and district-level government staff are provided with adequate training and capacity-building.  Low rate of turnover of experienced/skilled government staff.

	<p>SBES, as well as on practical measures to increase availability and efficiency of use of biomass.</p>	<p>awareness of the benefits of SBES (economic, environmental, health).</p> <p>Currently there are very few entrepreneurs or small-to-medium enterprises which are involved in manufacturing or promoting modern SBESs.</p>	<p>operation of SBES.</p> <p>- At least ~5 tinsmiths and ~2 masons are engaged and trained in manufacture and marketing of SBESs.</p>	<p>raising and training on the benefits and operation of SBES.</p> <p>~At least ten (10) tinsmiths and ~five (5) masons are engaged and trained in manufacture and marketing of SBESs.</p>	<p>- Training workshop attendance registers;</p> <p>- Bi-annual updates and annual reports by Technical Service Provider.</p>	
<p>3.3 Number of peer-reviewed scientific publications, policy briefs and popular articles based on the SBESs demonstrated through the project to increase awareness of benefits and technical performance of SBES.</p>	<p>At present there are no technical assessments or research outputs that report on the GHG mitigation potential and technical performance of SBES in Afghanistan.</p>	<p>One (1) independent assessment report generated on technical performance of three SBESs demonstrated, including estimates of fuel use efficiency and GHG mitigation potential.</p>	<p>At least: i) one (1) peer-reviewed scientific journal article reporting on the energy efficiency and reduced GHG emissions achieved by piloted SBES; ii) one (1) independent assessment report on SBES piloted to inform GHG tracking; and iii) one (1) policy brief on the benefits and technical performance of SBES demonstrated.</p>			

# Component 4:

Milestones towards achieving output and outcome targets				
	Indicators	Baseline	Mid-term	Final
Outcome 4 Increased national awareness and promotion of SBES and CBNRM	4.1 Number of Awareness raising activities and communication strategy at pilot sites and at a national level.		Local awareness-raising strategy developed to be implemented within pilot districts to promote upscaled adoption of SBES and CBNRM at district-level.	- Awareness-raising activities implemented within at least twenty (20) CDCs in pilot districts to promote adoption of SBES and CBNRM.  - At least two (2) popular or 'grey literature' articles to promote SBES disseminated through government media.
	4.2 Number of Project-related "Best Practices" and "Lessons Learned" available in English and local languages.		At least one "best practices" report based on the first year of implementation and technical assessments of SBES.	- Completed policy briefs; - Awareness-raising strategy implemented at district level. - Awareness-raising knowledge products such as popular articles available through government websites and print.
	4.3 Project monitoring and evaluation system operating providing systematic information on progress in meeting project outcome and output targets.		Mid-term review report on project progress, including estimated GHG emissions reduced by project.  Revised workplan for Year 2 submitted by NPIU to PSC, based on mid-term report and lessons learned during Year 1 of implementation.	- Half-yearly and annual reporting by TSPs; - Annual review submitted by NPIU.
				The GoIRA and other stakeholders support M&E processes, and are committed to continuous learning and exchange of knowledge on SFM and SBESs.

**ANNEX B: RESPONSES TO PROJECT REVIEWS** (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

GEF ID: 5610

Country/Region: Afghanistan

Project Title: Reducing GHG emissions through community forests and sustainable biomass energy

GEF Agency: FAO GEF Agency Project ID:

Type of Trust Fund: GEF Trust Fund GEF Focal Area (s): Climate Change

GEF-5 Focal Area/ LDCF/SCCF Objective (s): CCM-1; CCM-3; CCM-5;

Anticipated Financing PPG: \$91,324 Project Grant: \$1,735,160

Co-financing: \$7,000,000 Total Project Cost: \$8,826,484

PIF Approval: Council Approval/Expected:

CEO Endorsement/Approval Expected Project Start Date:

Program Manager: Junu Shrestha Agency Contact Person: Patrick Durst

Review Criteria	Questions	Secretariat Comment At CEO Endorsement(FSP)/Approval (MSP)	Response at CEO Endorsement
Strategic Alignment	4. Is the project aligned with the focal area/multifocal areas/ LDCF/SCCF/NPIF results framework and strategic objectives?	Recommended Actions by CEO Endorsement Stage: The project does not contribute towards CCM-1 objective. Please add CCM-2 objective instead.	Response: We submit that the developments in the pilot country since the time of the PIF and the stakeholder consultations during the PPG phase have suggested a need to: i) promote an enhanced institutional environment that will support future investments in sustainable use of biomass energy, including both the use of biomass as a source of renewable energy as well as increasing the efficiency of biomass energy use. Consequently, the institutional reforms promoted by the project, and the technologies demonstrated, will include a focus on both energy efficiency and renewable energy. Therefore this GEF 5 Project is more closely aligned to CCM1 (Objective 1: Promote the demonstration, deployment, and transfer of innovative low-carbon technologies) than CCM2 (Objective 2: Promote market transformation for energy efficiency in industry and the building sector). Furthermore, the approaches demonstrated by the proposed project are relatively novel in Afghanistan and are not sufficiently well-known or widely-practiced to be upscaled through this project. Although it is granted that fuel-efficient cookstoves have been trialled on a pilot basis by some past initiatives, the level of awareness and rate of adoption of these technologies remains very low and restricted to the vicinity of pilot sites. The institutional and policy environment is largely focused on renewable energies such as solar PC and micro-hydro while biomass energy is not meaningfully considered at the level of policy, planning and investment. Consequently, we suggest that the project's focus on integrating sustainable approaches to using biomass energy, including through community-based forestry and natural resource management, is well aligned with CCM-1 and CCM-3.

Project Design	<p>6. Is (are) the <b>baseline project(s)</b>, including problem(s) that the baseline project(s) seek/s to address, sufficiently described and based on sound data and assumptions?</p>	<p>1/23/2014 CCM JS Adequate response has been provided for PIF stage. Gaps in the forest related policies have been concisely presented. However, it is expected at other items would be addressed with more specific details by CEO Endorsement.</p> <p><b>Recommended Actions by CEO Endorsement Stage:</b> Please provide details on the baseline status of energy access in the target areas with specifics on the sources of biomass energy and site-specific approaches to reduce the burden on forests. A few studies have been cited but their conclusions related to improved biomass energy systems and pressures on forests have not been summarized. We request that during PPG, a careful analysis is done to determine the overall scale of deforestation and degradation in the target areas and the role of wood collection. Similarly please provide details on the activities (what kind of SBES, capacity building, approaches to soil stabilization) are being supported by the baseline projects. PIF only states best practices from previous CBNRM projects will be applied. Please identify and describe what these best practices are in specific terms by the endorsement request.</p>	<p><b>Response:</b> The baseline context and choice of baseline projects was revised considerably during the PPG phase. Government-implemented projects under MAIL, MEW and MRRD were approaching the termination stages at the time of the PPG and consequently new sources of baseline co-financing and baseline support were sought. The project document annexes, notably annexes 7 – 9, included detailed information on biomass energy use, land use change, deforestation and GHG emissions from the project site areas. In particular, the preferences and rates of consumption of woodfuel were elaborated in detail. The proposed technologies to be demonstrated by the project are based on the needs and preferences identified by stakeholders during the PPG phase, including both national-level stakeholders as well as representatives of households in the project areas. The project will adopt a phased approach to disseminating SBESs that will gradually increase in annual targets over the course of the project implementation period, concurrent with rigorous technical research on the SBESs identified. This approach is intended to validate the choice of technologies on an annual basis, and develop incremental improvements to the design of SBESs demonstrated through research. This will allow a flexible adaptive management approach that can be either upscaled annually if successful or revised/modified to in response to feedback from users (if necessary).</p>
	<p>7. Are the components, outcomes and outputs in the <b>project framework</b> (Table B) clear, sound and appropriately detailed?</p>	<p><b>Recommended Actions by CEO Endorsement Stage:</b> It is acknowledged that the project will build on the lessons learned from the existing or past baseline projects. Please ensure that the proposed project not only uses the project to simply continue the efforts of the older projects, but to upscale and integrate sustainability to the project outcomes.  Please specify project outputs that would contribute towards such goals.</p>	<p>The PPG phase included a strong focus on collecting baseline information from proposed project sites relating to land use change, deforestation, household energy use, presence of formal community structures and the status of community-based management of forests and natural resources. The project's activities have been formulated to address the specific local context and requests of community representatives. At the district- and provincial-level, sustainability of outcomes will be supported by building the capacity of local community governance structures as well as local-level government extension officers to adopt the activities piloted by the project. The capacity-building and training activities will be further supported by establishing clear participatory plans for management of natural resources and forests, with an emphasis on woodfuel as well as commercially useful forest products.</p>

In the response, the agency has clarified that specific details that demonstrate the dependency of the communities on wood fuel is limited. Please utilize PPG studies to determine the extent of the dependency and its effect on forests. Please describe the scale, size and type of the community forests as it relates to the existing demand for fuel, and also describe the options that will be considered for management. It is understood that Biomass Energy Information System will be operated by Afghan Energy Information Center. By CEO Endorsement, please define how information generated will be packaged and disseminated to rural communities in a manner that will be easily used by them. It was mentioned in the response that forests are state-owned. Please identify project outcomes which will contribute towards incentivizing communities to participate in management of such forests and please demonstrate sustainability of such activities in a long term.

Please explain the distribution mechanism that will be used to SBES in component 3. Please clarify whether there will be an incentive scheme for such deployment. Consistent with the first PIF review, please remove scoping studies and investments in biodigesters through the project.

It was strongly recommended not to link the proposed Biomass Energy Information System with the Afghan Energy Information Centre for several reasons. Importantly, the AEIC has been managed with the financial and technical support of an ongoing donor-based programme, the long-term future and funding of which remains unclear. At present, the content of the AEIC is uncensored and not up to date. Consequently, it was proposed to link the biomass energy information system with the newly launched Climate Technology Centre and Network implemented by UNEP Afghanistan and the GEF Focal Point agency, NEPA. The CTCN is the operational arm of the United Nations Framework Convention on Climate Change (UNFCCC) Technology Mechanism and is hosted by the United Nations Environmental Programme (UNEP) in collaboration with the United Nations Industrial Development Organization (UNIDO) and 11 independent, regional organizations with expertise in climate technologies. The latter approach was recommended for several reasons, including the strong working relationship and collaboration between FAO, UNEP and NEPA, which will be further strengthened through the involvement of all of these agencies in the Project Steering Committee.

The public awareness-raising and capacity-building knowledge products that will be generated by the project will be developed by a suitably qualified Technical Service Provider with demonstrable experience in working with rural Afghan communities. Under Components 2 and 3, specific outputs will include training modules developed specifically for the needs of i) government extension officers; and ii) participating communities, on the topics of CBNRM/SFM and SBESs, respectively. These knowledge products, as well as the results of technical research on SBESs demonstrated, will be available through the CTCN as well as distributed in hard copy to participating stakeholders.

The sustainability of project activities related to development of CBNRM and SFM activities under Component 2 will be underpinned by the establishment of participatory Forest Management Plans to be submitted to the relevant ministry (MAIL) in alignment with Afghanistan's Forest Law. This latter law provides for the formal allocation of forest management rights to registered Forest Management Committees. It was emphasised during the PPG phase that sustainable management of forests and natural resources by communities could only be assured by transferring management rights and clear land tenure to communities. Consequently, the approach of developing participatory community management plans for submission to MAIL was welcomed by stakeholders.

		<p>The mechanism for disbursement of SBESs will be based on the successful approaches applied by previous projects implemented by UNEP, USAID, BORDA and MADERA, and are described in detail in the main text of the project document as well as in Appendix 8. The deployment of SBESs will be based on a partial subsidy of the costs of SBESs which will be disseminated through the Community Development Councils already established at the project sites. Subsidised costs will be shared between the project and the CDCs. The inclusion of biogas digesters is proposed as a voluntary option for selection by willing households on every small pilot basis, on the premise that those households with an interest in trialling biogas digesters will have the option to request assistance and subsidised costs to install household-scale digesters. Stakeholders from MEW and MRRD strongly requested the inclusion of biogas digesters as an option for SBESs to be demonstrated by the project, as both ministries have prioritised this technology as an important priority for further research and capacity-building.</p>	<p>The PPG phase focused on developing detailed estimates of GHG emissions from the LULUCF and household energy sectors, both under a baseline scenario and under the proposed project scenario. It was noted that the potential GHG reductions described in the PIF were overly ambitious and unrealistic in consideration of the slow growth rate of wooded ecosystems and the limited availability of budget to include additional project areas. The proposed target of 12,000 hectares in each project site was considered to be highly ambitious but realistic.</p> <p>Estimated GHG reductions resulting from the project are described in extensive detail in Appendices 7-9 in the full project document.</p> <p>The aligned projects and stakeholders with which the project will coordinate are represented on the Project Steering Committee which will meet at least twice annually. Importantly, the project will form a Biomass Energy Working Group, a voluntary committee which will share technical information and opportunities for collaboration between relevant stakeholders. This working group will build on the existing Biogas Consortium of Afghanistan and will be open to other interested organisations and entities. Through the use of the CTCN network to host the Biomass Energy Information System, FAO will maintain a close working relationship with UNEP's Afghanistan mission, which itself is closely linked with the country's climate change response through UNEP's placement of seconded staff to NEPA (the national agency responsible for national climate change response). Furthermore, the engagement of the NGOs BORDA and MADERA as technical service providers and Project Steering Committee members, FAO's linkage to MEW and MRRD will be enhanced as these latter NGOs are both</p>
	<p>7. Are the components, outcomes and outputs in the project framework (Table B) clear, sound and appropriately detailed?</p>	<p>Please use the PPG period to collate the data and information necessary to determine the most reliable estimation of tCO<sub>2</sub>e benefits that would be achieved through each project component. Please estimate the business as usual scenario and the effects of the project to determine the additional tCO<sub>2</sub>e benefits to be accrued through the project. Please use one of the standard assessment methodologies for such estimations.</p>	
	<p>12. Is the project consistent and properly coordinated with other related initiatives in the country or in the region?</p>	<p>Recommended Actions by CEO</p> <p>Endorsement: Please identify how and at which stage the proposed project will coordinate with the listed projects and provide mechanisms of coordination.</p>	



			Facilitating Partners of the latter ministries with signed Memorandums of Understanding. Consequently, the project will begin close engagement with the above stakeholders from the Inception Phase onwards.
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**ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS<sup>42</sup>**

A. PROVIDE DETAILED FUNDING AMOUNT OF THE PPG ACTIVITIES FINANCING STATUS IN THE TABLE BELOW:

PPG Grant Approved at PIF: 29 JULY 2014			
<i>Project Preparation Activities Implemented</i>	<i>GEF/LDCF/SCCF/NPIF Amount (\$)</i>		
	<i>Budgeted Amount</i>	<i>Amount Spent To date</i>	<i>Amount Committed</i>
Activity 1: Elaborate Project Component 1	16,880	15,513	0
Activity 2: Elaborate Project Component 2	11,880	10,918	0
Activity 3: Elaborate Component 3	17,881	16,432	0
Activity 4: Information Synthesis, Project Design & Budgeting	20,682	19,006	3,412
Activity 5: Stakeholder consultation and PPG management	24,001	22,043	4,000
<b>Total</b>	<b>91,324</b>	<b>83,912</b>	<b>7,412</b>

<sup>42</sup> If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent fund, Agencies can continue undertake the activities up to one year of project start. No later than one year from start of project implementation, Agencies should report this table to the GEF Secretariat on the completion of PPG activities and the amount spent for the activities.