CTCN
CLIMATE TECHNOLOGY CENTRE & NETWORK

CTCN Technical Assistance
Response Plan

Country:	Afghanistan
Request Identification Number:	2014-007/AFG-01

Title:	Technical support and advice for the identification of technology needs in Afghanistan

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Technical Assistance Summary

Afghanistan has been identified among the countries with most vulnerability to climate change impacts. The decades of war and conflict have not only damaged the country's infrastructure, but also reduced capacity for development inside the country. In order to develop its mitigation and adaptation options to the climate change impacts, the government of Afghanistan has asked for technical assistance from CTCN, to identify technology needs in three most vulnerable sectors (according to NAPA) to climate change impacts.

The objective of the technical assistance is to support the Government of Afghanistan in identifying and advocating for suitable technologies for low-carbon and climate resilient development in agriculture, water, and energy. The technical assistance will focus on three interrelated areas; (i) raising political will and interest for low carbon and climate adaptation technologies through targeted briefings and advocacy papers and its integration in the national development planning processes (e.g. ANDS), (ii) generating promising project concepts for climate technology deployment. and (iii) strengthening capacities for identifying priority technologies and related enabling frameworks, including support for the technology discussions in the upcoming 2015 United Nations Climate Change Conference (COP 21) in Paris,

The CTCN assistance will provide a solid basis for the country to conduct a Technology Needs Assessment / Technology Action Plan (TNA/TAP) process, as Afghanistan plans to join the next round of TNAs funded by GEF (TNA Phase III – GEF 6). The lead in-country partner is the National Environment Protection Agency (NEPA), and the execution will be coordinated with other relevant government ministries and agencies such as the Ministries of: Finance; Foreign affairs; Energy and Water; and Agriculture, Livestock and Irrigation); as well as international development partners, national academic and research institutions.

1. Overview of the assistance

1.1 Objectives (outcomes)

The proposed CTCN assistance is anticipated to result in three primary and interrelated outcomes:

1. Climate technology priorities for Agriculture, Energy and Water sectors are mainstreamed into national planning processes to enable support and investment for climate technology in Afghanistan: The proposed assistance is designed to raise the awareness required for policy makers to integrate climate technologies into their planning processes. The proposed assistance is timely as Afghanistan is in the initial stages of revising the Afghanistan National Development Strategy (ANDS). The ANDS outlines the development priorities of Afghanistan as agreed by the government and international development partners and

identifies priority programs and projects to facilitate investment. The CTCN assistance is designed to identify and advocate for climate-relevant technologies both in the overall ANDS and the subsidiary sectoral development plans (e.g. agriculture) that will be devised.

2. Some priority climate technology project concepts are developed: The proposed assistance is designed to develop priority climate technology project concepts with a preliminary indication of potential donors, complemented by a detailed description of next steps and requirements for further developing them into bankable proposals in order to secure global funding and projects.
3. Increased national capacity to identify climate technology priorities and access investment and funding for climate technology in Afghanistan: The proposed assistance is designed to provide Afghan policy makers with the tools to identify appropriate climate technology priorities, to better understand funding and investment processes for climate technology actions, and to effectively develop proposals to access global funding, investments and CTCN services. This assistance includes activities to identify and assess priority technologies from the existing strategies and development plans, past and ongoing projects and programmes, studies and other information, as well as specific training workshops. In addition, the proposed assistance will help to enhance national capacity for mainstreaming technology issues in international climate change conferences including the upcoming COP21, through activities such as the development of a roadmap for conference preparation and a training guide.

The CTCN assistance will thus strengthen the political will and support for mitigation and adaptation technologies, and therefore ensure better conditions in the country for conducting the TNA/TAP process under the upcoming TNA Phase III and for the implementation of new technology initiatives for low carbon and climate resilient development.

1.2 Results (outputs)

The main outputs of the proposed CTCN assistance are designed to achieve the outcomes described in section 1.1 of this document. These outputs are described briefly below:

- Documented planning roadmap for mainstreaming climate technology priorities in the three priority sectors: As described, the national development strategy for Afghanistan is in the initial stages of revision. This output will document the process of revision of the main document as well as the development of sector plans. In so doing, it will identify the stakeholders and touch points that are critical to ensuring that climate technology considerations are included in the planning process.
- Compendium of climate technology options: This output is designed to provide both a documented process for assessing technology options in the national context as well as the results of that assessment. The priority climate technology options will be identified by analyzing current development priorities (from ANDS, sectoral strategies…) and climate change priorities (from NAPA, National Communications…), and building on existing/ongoing projects, programmes, studies and information. This assessment will also help set the stage for the TNA/TAP process.
- Briefing / Advocacy papers: Three sets of advocacy papers (one each in energy, agriculture and water resources) will be produced. These papers are targeted at policy makers and decision makers, and designed to advocate for the inclusion of climate change considerations in the national planning process, and will include the compendium of climate technology

options. In each of the sectors, the papers will be adapted to the various audiences and messaging to focus on (i.e. overview of the sector, of a few technologies identified, etc.)

- Technology project concepts: The highest priority climate technology options will be assessed further into project concepts. Three to six project concepts will be developed, with at least one from each of the three priority sectors. These project concepts will lay the basis for developing bankable proposals, with emphasis on pilot projects that can be scaled-up.
- Training reports and materials: While the experts providing the assistance will work closely with the NDE and other stakeholders to build capacity in the assistance activities, formal training modules consisting of a student handbook and training guide will also be developed. These modules will include material on accessing CTCN services, technology assessment and project concept development, and climate finance. These training modules can be used to increase climate technology awareness and sustain national capacity after the proposed assistance has concluded. In addition, training reports including number of participants, small evaluation and other essential information would be included in this output.
- Guide for climate conference preparation: In support of Afghanistan's preparations for COP21 and the inclusion of climate technology issues, a roadmap of activities and milestones, along with a guide on climate change negotiation will be developed. The CTCN assistance will specifically provide guidance and inputs for the guide on the COP's climate technology related agenda and issues.

1.3 Technology aspects

The CTCN assistance will promote adaptation and mitigation technologies for the Agriculture, Water and Energy sectors in Afghanistan, and secure political support for targeted projects for the deployment of some pre-selected adaptation and mitigation technologies in each of these sectors. Previous and ongoing projects, activities and studies both by governmental and non-governmental agencies and international development partners have identified promising climate related technologies. The activities described in this document are designed to compile what has been done in the country to date in relation to climate change and environmentally sound technologies, and to develop a list of technologies for climate change adaptation and mitigation that appear as the most suitable for these sectors in the country.

2. Description of the Assistance

2.1 Activities

Activity 1 – Assessment of enabling mechanisms and development of briefing and advocacy papers for mainstreaming climate technology related issues in development plans and strategies.

Activity 1.1: Develop climate technology compendium and document process of national development plan revision (in priority sectors). Envisaged tasks required are:

- *Review and analyze previously established national priorities for agriculture, water and energy, related climate change aspects and climate technology issues/priorities, programmes projects, and studies.*
- *List suitable adaptation and mitigation technology options (both as previously identified in Activity 1.1 and new options not previously considered), with special attention paid to potential pilots that can be scaled-up.*

- *Pre-assess benefits and main challenges/barriers of each suitable adaptation and mitigation technology options identified in Activity 1.2*
- *Build consensus with stakeholders to prioritize identified adaptation and mitigation technology options*
- *Review ongoing national strategies or master plans being developed for energy, agriculture or water; Identify opportunities/leverage points for climate-smart technology advocacy*

Activity 1.2: Based on the findings from the Activity 1.1, develop briefing/advocacy papers on climate technology and financing options. Envisaged tasks are:

- *Review relevant climate financing options and summarize Afghanistan's opportunity for alternative financing to support climate-smart technology in the three sectors, with a focus on responsible growth, green technology, traditional systems, regional financing, and south-south technology trade to enhance its adaptive capacity to climate change*
- *Develop short and targeted briefing/advocacy papers on adaptation and mitigation technology options for agriculture, water and energy sectors in Afghanistan for the use of decision makers, representatives at climate conferences, and national development strategy working groups*
- *Support the incorporation of climate technologies in the development (or review) of priority sector (agriculture, water, energy) national plans identified in Activity 1.1;*
- *Present briefing/advocacy papers to these working groups in association with national advocates who will drive follow-up and implementation*

Deliverables	**Delivery date**
Roadmap documenting the planning process for the priority sectors and identifying leverage points for climate technology advocacy.	*End of month 1**
Compendium on adaptation and mitigation technology options for the agriculture, water (resources management, drought mitigation), and energy sectors in Afghanistan	*End of week 9*
3 briefing/advocacy papers on adaptation and mitigation technology options, one for each priority sector.	*End of week 11*
A short guide on navigating the funding streams for global environmental and climate-smart technology support to Afghanistan	*End of week 6*

** Delivery dates indicated from formal CTCN and NDE approval*

Activity 2 – Development of climate technology project concepts

Activity 2.1 – Present prioritized technology options and develop technology project concepts. Envisaged tasks are:

- *Convene an expert group for CTCN Response Team to present findings from Activity 1*
- *Develop mitigation and adaptation project concepts based on priorities identified in Activity 1, by the expert group.*

Activity 2.2 – Technology concept advocacy and development of terms of reference for developing full project proposals. Envisaged tasks are:

- *Convene a stakeholder meeting for project concept review and advocate for political commitment and donor support*
- *Finalize project concepts with the terms of reference for next steps to undertake for making them bankable proposals*

Deliverables	Delivery date
Summary reports from conference working groups	*End of week 15*
Project concepts with the terms of reference for next steps to made for making them bankable proposals	*End of week 18*

Activity 3 – Strengthening capacities for identifying technology needs and climate conference preparations

Activity 3.1 – Development and deployment of training modules. Envisaged tasks are:

- *Identify existing training materials relevant for this assistance and adapt them to the audience (i.e. bankable proposal TNA process, etc)*
- *Development of training materials when needed*
- *Training of national experts for developing bankable proposals, strategic planning, and climate financing opportunities*
- *Training of national experts on the technology needs assessment (TNA) process.*
- *Training of national experts on the effective use of CTCN services*

Activity 3.2 – Conduct a workshop to: *(i) present and disseminate results from Activity 1 and 2 (ii) encourage focused research efforts to address data and information gaps identified under Activity 1*

Activity 3.3 – Strengthen capacity of national experts on climate negotiations, with particular focus on technology and the upcoming COP 21 in December 2015. Envisaged tasks are:

- *Review and analyze steps needed to prepare for climate conferences*
- *Deliver a training for climate conference preparation, which includes a backgrounder on climate negotiations and international considerations for climate change decision-making*
- *Support to government officials for the development of a country position paper*

Activity 3.4 – Post-assistance and post-conference support to facilitate continuity in climate-smart technology planning and promote strong action. Envisaged tasks are:

- *Develop a post-assistance and post-conference plan*
- *Consult with country representatives and support the development of a post-conference report with preliminary next-steps for 2016*
- *Support the delivery of a conference debrief/follow-up seminar for relevant government agencies and high-level decision-makers*

Deliverables	Delivery date
Training curriculum, student handbook, and materials for each theme: TNA, CTCN services, climate finance, and proposal writing	*End of week 16*
Training materials for climate conference preparation	*End of week 17*
Training workshop reports and feedback forms	*End of week 23*
Roadmap for climate conference preparations	*End of month 1*
A short guide on climate conference preparation, which includes suggested timeline and activities	*End of week 7*
Post-assistance and post-conference guide, including suggested plans for the development of a post-conference report, a debriefing seminar, and method to define next steps	*End of month 6*

2.2 Expertise required

The assistance will require some expertise to management rather than deep functional knowledge in a particular area. The expertise required will span:

- Integrated approaches: Expertise in coordinating integrated activities, supporting government planning and strategy design, monitoring and performing quality assurance of Technical Assistance deliverables will be required. In-country experience is critical.

- Technical and economic analysis of climate technologies: Required for technology prioritization and project concept development.

- Stakeholder engagement and coordination: Required to advocate for climate technologies and build consensus amongst the large number of government, international development partner and civil society stakeholders.

- Policy and regulatory analysis: Required to document the overall ANDS process and the roadmap for developing national plans for the priority sectors. This expertise will also be required to identify the touch-points in the planning process so that climate technologies can be effectively advocated for.

- Communication and writing skills (material development): To be effective, the assistance will ensure that stakeholders have the necessary information to contribute to discussions, and that decisions and work products are disseminated effectively. Further, training modules will be developed.

Estimate of expertise requirements:

International consultants[1]: 45 days (2 months)

• Mitigation technology expert:	15 days
• Adaptation technology expert:	30 days
	45 days

National consultants[1]: 150 days (7 months)

• National Technical Assistance Coordinator:	100 days
• National Climate Change Expert:	50 days
	150 days

2.3 Main partners

Government Ministries and Agencies

Designation	Role
National Environment Protection Agency (NEPA). NDE	Its portfolio includes regulatory, coordination, monitoring and enforcement roles for all environmental issues in Afghanistan NEPA will play a fundamental role in ensuring that requests submitted to the CTCN reflect national priorities. With the Head of the Climate Change Division is

[1] Extra charges will be applied for covering special security requirements for UN consultants operating in Afghanistan (post conflict situation).

	the CTCN focal point, the Climate Change Division will perform the key role of ensuring that CTCN support is well coordinated at the national level. This technical assistance was requested by NEPA.
Ministry of Energy and Water (MEW)	MEW is the nodal ministry for energy and water resource policy and planning. Within MEW, the Renewable Energy Department (RED) is responsible for renewable energy planning technologies and will thus be an essential partner to the assistance provided.
Ministry of Agriculture, Irrigation and Livestock (MAIL)	MAIL is the nodal ministry for agriculture policy. As agriculture is a priority sector, MAIL will be an essential partner to the assistance.
Ministry of Finance (MoF)	Amongst other responsibilities, MoF is responsible for developing the national budget allocation to line ministries. They are thus crucial to the planning process in the priority sectors as well as ensuring that government resources are available to sustain the assistance efforts.
Ministry of Foreign Affairs (MoFA)	MoFA is responsible for managing relations with other countries. As such, it may be involved in preparations for international climate conferences, as well as the issuances of visas and travel permits.
Afghanistan National Disaster Management Authority (ANDMA)	The ANDMA is responsible for coordinating disaster management preparedness and response amongst the line ministries. They will be an important partner to ensure that adaptation considerations are effectively mainstreamed into the national planning process.
Ministry of Rural Rehabilitation and Development (MRRD)	The MRRD has implementing authority over small-scale renewable energy projects in rural areas, and has an extensive rural field presence. MRRD will be thus be an important partner for technology selection and project concept development.
Academic and research institutions	Kabul Universities, in particular Kabul University and the Kabul University Renewable Energy Lab (KURE Lab) within the Faculty of Engineering, will be contributing to the technical analyses and studies of climate technologies.
Ministry of Economy (MoEc) / Inter-ministerial Commission for Energy (ICE)	The MoEc is the nodal ministry for economic policy and planning. Within the MoEc, the ICE is a mechanism for coordination and harmonization of energy sector activities. MoEC and ICE will thus be an important partners for assessing previous priority programs and technologies, particularly in the energy sector.
Civil society and NGOs	To identify previous and ongoing projects related to technologies, and to involve in consultations. Others?
Private companies, technology providers	To identify previous and ongoing efforts related to technologies, and to involve in consultations. Others?

Supporting International Institutions and Agencies

Designation	**Role**

United Nations Environmental Programme	UNEP will provide technical support for the CTCN technical assistance as a whole through its global expertise and in-country infrastructure. This coordination role includes collaboration with CTCN and NEPA, facilitation of activities of this assistance, and the identification and recruitment of suitable expertise to ensure that activities can be suitably planned and executed. In addition, it will facilitate the monitoring and evaluation of the outcomes of the technical assistance, and will sit on advisory committee and management committees to provide essential support to the assistance.
German Federal Enterprise for International Cooperation (GiZ)	GiZ is the German government agency for international development. GiZ efforts are focused on renewable energy where it has conducted technology assessments and developed pilot programs.

2.4 Synergies

The response will build on and link to previous and ongoing climate change initiatives. The response will build on the previously identified priorities. Organizations and individuals involved in these initiatives are among the identified stakeholders. Past initiatives to build upon include Afghanistan's National Capacity Needs Self-Assessment for Global Environmental Management (NCSA), National Adaptation Programme of Action (NAPA), and Initial National Communication (INC). NEPA is currently developing the Second National Communication (SNC), a national Climate Change Strategy and Nationally Appropriate Mitigation Actions (NAMA).

The response will also seek to link to and build on initiatives for national planning, even if they have not previously been explicitly linked to climate change efforts. Indeed, one of the goals of the assistance is to mainstream climate considerations. As mentioned, the ANDS (the overarching national development planning document) is in the initial stages of revision, and will lead to revisions of planning documents for the priority sectors. In addition, it is likely that there are donor activities that have links to the proposed assistance. One goal of the initial stakeholder briefing is to identify these initiatives and build upon them where appropriate.
There are also opportunities to build synergies with the projects of different non-governmental organizations including UN agencies which are directly or indirectly related to the climate change. These synergies will support the implementation of the technical assistance process through their overlap activities.

Finally, Afghanistan is going to participate in the next phase of Technology Need Assessment process, which aims to identify, evaluate and prioritize technological means for both mitigation and adaptation, in order to achieve sustainable development ends. The actual process will help the government to prepare for the TNA process.

2.5 Timeline

The assistance will be conducted over an estimated six-month period. Please refer to the enclosed timeline for planned staging of activities and attainment of milestones. The planning and activities of

the assistance will be adapted to the national planning process for the preparation of the ANDS and other related plans

2.6 Indicative budget

The total budget dedicated by CTCN to this response will be of a maximum of USD 40,000 USD

2.7 Gender considerations

Since the technical assistance is designed as a participatory process, involving participants from different governmental and non-governmental organizations, it is hard to ensure the gender equity among the participants; but the process aims at least 30% participation of women.
The process focuses on three important sectors, which impact directly the livelihood of both male and female in the country, any positive and negative changes in these sectors, impact both male and female and as well people from different social levels.
The ANDS and the National Action Plan for the Women of Afghanistan both contain guidelines on gender mainstreaming, and these guidelines have been taken into account in the planning of all project activities.
Understanding and catalyzing gender-sensitive climate-smart initiatives will be a distinct section in the final report.

2.8 Risk identification and mitigation

Risks	Consequence	Probability	Mitigation
Technical Risks			
Technologies selected will not be appropriate for Afghanistan	Climate change mitigation / adaptation measures will not be optimal	Low	Select assistance team and involve stakeholders who have appropriate technical knowledge and know local conditions
Insufficient capacity for effective operation / maintenance	Pilots will not deliver envisaged long-term benefits. Confidence in technology selection and program in general among stakeholders will dwindle	Medium	O&M capacity to be criteria in selecting technologies. Links to educational institutions to build additional O&M capacity
Insufficient capacity for scaling up construction / adoption	Pilots may succeed, but cannot be scaled to realize country-wide climate change benefit potential	Medium	Local capacity to be criteria in selecting technologies. Links to educational institutions build additional capacity
Economic Risks			
Insufficient funding to develop pilots	Technologies will not move beyond planning stage in AFG	Medium	Effective planning and the development of pilots on prioritised needs with the use of the financing guide will minimize this risk
Projects will not be financially viable	Scale up of pilots will not be viable	Low	Financial viability of projects is part of selection criteria. Lack of alternative options (e.g. grid power) make climate-friendly options more viable

Insufficient funding for effective O &M	Confidence in technology selection and program in general among stakeholders will dwindle	Medium	Including O&M considerations in financial planning. Including multi-year life cycle in pilot assistance plan
Organizational Risks			
Insufficient coordination with key stakeholders	No buy-in and insufficient adoption of recommendations	Medium	Response plan is centred around stakeholder engagement and incorporating previously defined priorities of government and donors
Assistance team sub-optimal for task	Improperly framed recommendations and lack of confidence in program amongst stakeholders	Low	Experienced Technical Assistance team and advisory committee. Links to international expertise (CTCN network)
Political Risks			
Lack of will on part of key donors as selected technologies run counter to their priorities	Upcoming donor programs will not be harmonized with response recommendations, resulting in sub-optimal climate change response	Medium	Intense engagement to understand donor priorities and incorporate them to the extent possible
Political transition will reduce interest	Climate change response activities will not attain necessary priority for execution by government.	Medium	Engagement with government at multiple levels
No political will in government to implement recommendations	Climate change response will not be mainstreamed	Medium	Engagement with government at multiple levels and process in place within government to keep climate conversations as a priority (through incorporation in ANDS)
Other Risks			
Frequent changes in membership of the working group and TA management team (Staff turnover).	Changes in assistance-related government priorities, poor institutional memory, poor coordination of the assistance provided	Medium	Deputies and alternative representatives within the institutions will be recommended at inception to ensure that sufficient membership continuity is available. · PSC will make use of established government structures to capitalise on functioning systems.

2.9 Monitoring and Reporting

Monitoring and reporting is naturally integrated into the process due to the nature of the activities. The monitoring efforts will be based on the logical framework available in Annex 2. Progress will be reported in monthly bases to the advisory committee of the technical assistance, which is led by the

NDE. Minutes of major meetings (such as stakeholder consultation sessions) will be produced, and shared with the advisory committee. Work products such as advocacy papers, project concepts and training material will be reviewed by the Advisory Committee (which includes the NDE and CTCN expert) prior to dissemination.

3. Long-term impacts of the assistance

3.1 Expected climate benefits

It is hoped that the assistance will successfully integrate climate technology considerations into the overall and sector-specific national planning process and thereby foster actions and investments for climate technology issues. As these national plans are implemented, climate benefits will be realized. The advocacy and training elements of the assistance are designed to sustain interest and knowledge of climate technologies after the assistance period has concluded. It is expected that the assistance will lead to new projects for the deployment of low carbon and climate adaptation technologies in Afghanistan. Further, the assistance will help Afghanistan prepare for the upcoming COP21, with successful participation leading to sustained long-term involvement of Afghanistan in global climate response deliberations. The assistance will also help the country prepare for a full-scale TNA process, the implementation of which will produce climate change benefits.

3.2 Co-benefits

Technology prioritization will be conducted along a framework with economic, social, and environmental criteria. Project concepts for the highest-priority technologies will include an assessment of benefits. The agriculture, water and energy sectors are among the most vulnerable sectors to the climate change impacts. The development of advocacy papers and enhancing capacity to develop project concepts and access to global funding mechanism will help these sectors to search for effective approaches in order to cope with the climate change impacts in their sectors. The process will also lead the sectors toward the adoption of clean and adaptive technology and approaches for adaptation and mitigation to climate change impacts, which not only enhance the productivity and sustainability of sectors but also open new markets for investors and generate employment opportunities.

3.3. Post-assistance plans and actions

The assistance will produce a post-assistance plan for developing project concepts into bankable proposals (with an emphasis on pilot projects that can be scaled). This plan can be implemented upon the conclusion of the assistance. Further, this assistance will deliver preparatory analysis that Afghanistan can use to conduct a full-scale TNA process. Finally, assistance outputs such as the advocacy papers will serve as input into Afghanistan's preparations for COP21.

4. Formal agreement and signatures

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Signatures of the requesting country

For the NDE	**For the Request Applicant**
Name: Ghulam Hassan Amiry	Name:Ghulam Mohammad Malikyar
Title: Director of Climate Change Division - NEPA	Title:Deputy Director General (Technical and Scientific Affairs) - NEPA
Date: 23-03-2015	Date:
Signature:	Signature:

Signatures of the CTCN

For the CTCN Director	**For the Climate Technology Manager**
Name:Jukka Uosukainen	Name: Jonathan Duwyn
Title: Director, Climate Technology Centre and Network	Title: Climate Technology Manager at UNEP DTIE
Date: 05.05.2015	Date: 27 April 2015
Signature:	Signature: