Technical Assistance Closure Report

Closure Report for CTCN Technical Assistance

1. Basic information

Title of response plan	Technology needs assessment and associated action plan for climate change mitigation and adaptation in Iraq's most vulnerable sectors
Technical assistance reference number	2018000031
Country / countries	Iraq
NDE organisation	Climate Change Centre, Ministry of Environment
NDE focal point	Dr. Jasim Abdulazeez Humadi
NDE contact information	*Email address*
Proponent focal point and organisation	*Name, organization, email*
Designer of the response plan	*Name, organization, email*
Implementer(s) of technical assistance	*Consortium of partners led by Carbon Limits and including also Iraqi Green Climate Organization, OneWorld Sustainable Investments, Newcastle University*
Beneficiaries	*Local stakeholders in Iraq: Ministry of Environment, Ministry of Electricity, Ministry of Industry, Ministry of Oil, Ministry of Water Resources, Ministry of Agriculture, Ministry of Higher Education and Scientific Research, Ministry of Science and Technology, Baghdad municipality, Ministry of Planning, Ministry of Construction, Housing, Municipalities and Public works, Ministry of Transportation, KRG Environment Protection and Improvement Board, Iraqi Federation of Industries, Baghdad Renewable Energy and Sustainability Center, a number of industrial companies (confidential) – machinery, technology, cement, agricultural production, lab equipment (12 companies in total), Iraqi Green Climate Organization, Baghdad University*
Sector(s) addressed	*Energy (Electricity), Industry, Oil and gas, Water and Agriculture*
Technologies supported	*Energy: Off-/on-grid solar PV* *Oil and gas: VRU for oil storage tanks; Use of dry gas for power generation* *Other industry: Heat recycling and co-generation* *Agriculture: Agricultural water management; Conservation-friendly agriculture* *Water: Probabilistic water management; Probabilistic water management*
Implementation start date	*26 August 2020*
Implementation end date	*25 August 2022*
Total budget for implementation	*USD 312,195*
Description of delivered outputs and products as well as the activities undertaken to achieve them. In doing so, review the log frame of the	*The project included three key outcomes, which were supported by the following activities:* - *Activity 0. Development of implementation planning and communication documents*

original response plan and refer to it as appropriate	*Outcome 1. Institutional capacity and coordination mechanisms in place to govern and coordinate climate action and finance* - *Activity 1.1 Conduct a stakeholder's analysis* - *Activity 1.2 Support to the establishment of a TNA Committee* - *Activity 1.3 Development of a work plan for monitoring and oversight* *Outcome 2. Country Programming process: Technology solutions identified and prioritized in accordance with national strategies and plans* - *Activity 2.1 Pre-selection of sub-sectors for the fulfilment of Iraq's TNA* - *Activity 2.2 Validate, prioritize and assess feasibility of key technologies for the fulfilment of Iraq's TNA* - *Activity 2.3 Technology Action Plans (TAPs)* - *Activity 2.4 National Consultation exercise to ensure national ownership and technology deployment* - *Activity 2.5 Support the implementation of the Technology Action Plan with communications, guidance and training* *Outcome 3. Climate finance strategies strengthened, private sector mobilized, and project pipeline enhanced* - *Activity 3.1 Reviving the SME atmosphere and enabling environment through innovative new business identification training programme*
Methodologies applied to produce outputs and products	*Stakeholder engagement workshops and facilitated group discussions; Multi-criteria assessment; cost-benefit analysis; surveys and structured interviews with key stakeholders.*
Reference to knowledge resources	1) *TEC Brief 4: Technologies for Adaptation in the Agriculture Sector* 2) *TEC Brief 5: Technologies for Adaptation in the Water Sector* 3) *TEC Brief 13: Enhancing implementation of the results of technology needs assessments* 4) *Innovative approaches to accelerating and scaling up climate technology implementation for mitigation and adaptation* 5) *Enhancing Implementation of Technology Needs Assessments: Guidance for Preparing a Technology Action Plan* 6) *Good Practices of Technology Needs Assessments*
Deviations	*As requested by the Ministry of Environment, many of the workshops delivered took place outside of Baghdad, making sure stakeholders in other regions had a chance to contribute to the process and ensure wider buy-in. Part of the budget allocated to the Iraqi stakeholders' participation in these workshops (in particular, the TNA technical team members, including relevant sectoral ministries and the National Climate Change Committee of the Ministry of the Environment), which required budget reallocation.* *The timeline early in the project suffered some delays. Given the large number of institutions, ministries and organizations involved (the project covers 4 different*

	sectors and the technical teams are comprised of over 20 different departments and organizations representing 8 different ministries), the institutional arrangements required more time than planned and caused a delay on the finalization of the completion of the first activity. In addition, members of the PMU and the TNA groups are involved in a number of other ongoing activities (the update of the Nationally Determined Contribution and the National Adaptation Plan), which resulted in several delays for follow up workshops and meetings. Moreover, a series of lockdowns due to covid-19 pandemic took place in Iraq during 2021 (also a curfew limiting government staffing to 50%), resulting in many stakeholders having limited access to their workplace and limited time for project activities. Travel to Iraq was largely restricted with mandatory testing and quarantine measures (depending on the airport), causing reallocation of international consultants travel budget to cover costs related to regional workshops.
Anticipated follow-up activities and next steps	• *Further analysis of identified project ideas and potential development into concept idea notes for different climate financing* • *Implementation of activities designed by the CTCN* • *Dissemination of the TNA and TAP reports developed by the CTCN* • *Use of new expertise acquired during training led by CTCN*

2. Lessons learned

	Lessons learned	**Recommendations**
Lessons learned from the CTCN TA process	*Early identification of relevant stakeholders and putting in place appropriate institutional arrangements for project implementation (TNA Committee and Technical teams) were crucial in ensuring local engagement and possibility of making project outcomes aligned with the Iraqi circumstances.* *As requested by the Ministry of Environment, many of the workshops delivered took place outside of Baghdad, making sure stakeholders in other regions had a chance to contribute to the process and ensure wider buy-in.* *The project required significant administrative resources for reporting purposes.*	*Recommendations include* • *Consider allocating larger budget for conducting workshops and trainings outside of the capital city, to make sure the local communities, governments and industries are engaged and get a chance to contribute to the process, highlight barriers for deployment of climate technologies that exists in remote regions* • *Consider limiting the reporting requirements to essential reports, so TA can focus on generating outputs that will be directly used by stakeholders in the countries*

Lessons learned related to climate technology transfer	*Below are some examples of lessons learned and barriers identified for climate technologies analysed by the CTCN. More details for each of the 8 technologies are presented in the Technology Action Plans* - *Most of the climate technologies require high capital investment* - *There is often low awareness of the benefits and impacts of climate technologies by the final users (e.g. farmers, households)* - *There are limited regulatory incentives for the industries to implement climate mitigation measures (e.g. lack of carbon price, no strict requirements related to emissions)*	*Recommendations include* • *Launch awareness campaign to reach the most needed groups of the population* • *Develop pilot projects to demonstrate technology efficiency and impacts* • *Launch additional financing support incentives (based on example of Central Bank financing scheme) for selected technologies/industries* • *Develop and submit project application for climate financing* • *Continue building general institutional capacity on climate change mitigation and adaptation across all relevant sectors and various levels of governance*