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TERMS OF REFERENCE (TOR)

Title: Technology needs assessment and associated action plan for climate change mitigation and adaptation in Iraq's most vulnerable sectors

CTCN request reference number: 2018000031

Country: Iraq

15 May 2020

1 BACKGROUND INFORMATION

The Climate Technology Centre and Network (CTCN) is the operational arm of the United Nations Framework Convention on Climate Change (UNFCCC) Technology Mechanism and hosted by the United Nations Environment Programme (UNEP) in collaboration with the United Nations Industrial Development Organization (UNIDO) and supported by 11 partner institutions with expertise in climate technologies. The mission of the CTCN is to promote accelerated deployment and transfer of climate technologies at the request of developing countries for energy-efficient, low-carbon and climate-resilient development.

These requests for Technical Assistance (TA) are being submitted to the CTCN by the National Designated Entity (NDE) of the respective country. The scope of services under these Terms of Reference shall be executed based on a restricted solicitation process. By mandate, only accepted Members of the CTC Network are eligible to submit proposals and execute the required services to implement the response.

In case you are not a CTCN network member yet, you may bid for implementation of the technical assistance, subject to the condition that you submit your completed application for CTC Network membership before the bid closure and the same is acknowledged by the CTCN. Furthermore, the contract award – should your bid be selected – is conditional to your network membership application having been successfully approved by the Director of CTCN. Should the bidder partner with another institution to deliver the services described in these Terms of Reference, it is expected that the partner institution also joins the CTC Network.

The budget for this contract is USD 312,650 and needs to be in line with the detailed budget breakdown provided in the GCF readiness proposal annexed to the TOR. A maximum 10% variation will be allowed among budget lines within outputs. Budget variation between outputs is not allowed. The bidders are free to add on activities beyond what is mentioned in the TOR to enhance the quality of the deliverables and outputs, as long as the budget lines remains the same.

It is mandatory for the implementer(s) to allocate at least 1% of the budget to integrate a gender-approach to the activities. Please refer to the CTCN Gender Mainstreaming Tool for Response Plan Development for guidance at <https://www.ctc-n.org/technologies/ctcn-gender-mainstreaming-tool-response-plan-development>.

During the implementation of the project, the UNIDO staff including the CTCN staff and all contractors and individuals contracted by UNIDO under this project and involved in the delivery of in-country



United Nations Industrial Development Organization

activities under the project must comply with UNDSS rules and recommendations with regard to all security and safety measures for carrying out in-country activities.

This project will be implemented in full compliance with United Nations Security Council Resolution 1518 (2003) related to Iraq.

Should the bidder be interested in the execution of other Technology Needs Assessments (TNA)-related technical assistances, UNIDO and CTCN encourage them to participate in the bidding process for the implementation of the TNA and technology action plan formulation in Equatorial Guinea, Gabon, Nigeria, Democratic Republic of the Congo, Cameroon and Syria, also available in the UNGM and the UNIDO Procurement page.

2 PROJECT CONTEXT

Iraq ratified the United Nations Framework Convention on Climate Change in 2009. In 2015, Iraq submitted its ambitious Nationally Determined Contribution (NDC), which sets a determined target of reducing its GHG emissions by 14% in 2035.

Iraq is one of the most vulnerable Middle Eastern countries and is experiencing challenges resulting from rising temperature, declining precipitation and, according to GEF6 Regional Report for West Africa, it was classified as the fifth most vulnerable country in the world to decreased water and food availability, and associated health impacts resulting from the adverse effects of climate change.

The impact of conflict on the agricultural sector has been devastating and includes damage to water systems, irrigation facilities and other agricultural infrastructure, disruption of value chains and losses of personal assets, crop and livestock production, and food supplies.

National political strategies reflect a context of widespread desertification vulnerability, poor access to energy, and negative economic impacts. Desertification affects 39% of the country impacting on soil salinity, soil erosion and wind erosion with scenarios indicating future threats on coastlines due to sea level rise.

The energy sector has been negatively affected (kWh per capita) from increase of temperatures leading to further losses in electric power with hydroelectric generation plants capacity reducing from 1,846 MW to 400 MW. The net kWh per capita in Iraq in 2013 and 2014 was nearly 1,375 kW·h/year, compared to 8,000 kW·h/year in the neighbouring countries. In 2014, Iraq's economy experienced turmoil within its western and northern area resulting in significant numbers of internally displaced people when ISIS invaded the area.

Iraq's initial National Communication document prioritises sectors with the highest potential, namely agriculture, energy, water and industry. This reflects the most important sectors as highlighted in Iraq's NDC as electricity, industry (for mitigation), water and agriculture. By focusing on adaptation technologies within agriculture and water sectors this proposal aligns with the ongoing adaptation work in Iraq, especially around climate-resilient agriculture investments - an ongoing Adaptation Fund initiative - and restoring agriculture and water systems, through FAO, that supports smallholder farming families to diversify incomes, increase resilience, and provide nutritious and healthy diets.



United Nations Industrial Development Organization

Iraq's NDC identifies the national requirement for conducting a systematic assessment of the country's needs for efficient and environmentally friendly technologies. Iraq's National Development Plan has identified core 'environmental sustainability' as a core objective, including sustainable management of water/waste, addressing air contamination, and addressing climate change and its impacts. The Plan has an agricultural objective of increasing the GDP share from 4.5% (2015) to 5.2% (2022) and improving the quality of electrical services across sectors and improving the environmental impact of electricity activity through emissions reductions.

This request will enable Iraq to conduct a technology prioritization process, cost-benefit technical assessment, barrier identification and associated technology action plan. The technology needs assessment process will result in the identification of a concrete set of activities and concrete proposals to be implemented by Iraq that will subsequently support its Iraq's country programming.

Within Iraq's ongoing Readiness project to GCF, the government has established a NDA that consists of all related National Authorities and finalized their country programme and the internal legal system of the NDA. This will enable the Ministry of Environment, as a national focal point for the GCF, and the UNFCCC to work in an integrated and transparent manner with all relevant ministries and national authorities through the NDA to present the national priorities, needs and projects in accessible and clear way.

3 AIM OF THE CONTRACT

The objective of this contract is to provide technical assistance to Iraq to enable the development of a comprehensive Technology Needs Assessment (TNA) and action plan. The technical assistance will entail conducting a categorization and prioritization of technologies that will comply with the country's NDC and other strategies.

This work will enable Iraq to implement its climate targets (included in the country's NDC) using the most appropriate technologies. In this context, the TNA report and Action Plan will provide the necessary guidance to evolve the prioritized technologies and address the country needs in climate change adaptation and mitigation.

The work will also be useful to the country to develop and strengthen its pipeline of projects to target the international and institutional climate finance landscape and associated opportunities for project implementation and so can act as connector between technology, policy and investor communities.

4 SCOPE AND ACTIVITIES OF THE PROPOSED CONTRACTED SERVICES

To get a better understanding of the objectives of the request for technical assistance, the work elaborated beforehand by CTCN, as well as the necessary collaboration with the GCF National Designated Authority (NDA) and National Designated Entity (NDE), it is recommended that the bidder refer to the complete GCF Readiness and Support proposal approved by the Green Climate Fund (GCF) and attached to this tender.

Once this contract is signed, the CTCN will organize a kick-off call among all relevant parties involved in the request to introduce the Contractor to the NDE and NDA. This kick-off virtual meeting shall present



United Nations Industrial Development Organization

the activities, their timeline and clarify roles and responsibilities. In general, to ensure a successful implementation and proper interaction with national counterparts and stakeholders, it is recommended that enough days be allocated on site for most of the relevant activities. It is also recommended to include regional, or preferably, national experts or organizations in the proposed implementation team.

The Contractor shall undertake the following activities:

Activity 0. Development of planning and communication documents

The Contractor must undertake the following activities during execution of this CTCN technical assistance.

- i. Prepare a detailed work plan of all activities, deliveries, outputs, deadlines and responsible persons/organizations and detailed budget to implement the GCF Readiness and Support proposal approved by the GCF to enable all parties involved in the implementation (NDE and NDA included) to track and plan ahead their time around the project execution. The detailed work plan and budget must be based directly on the GCF approved document (in English);
- ii. Based on the work plan, prepare a monitoring and evaluation plan with specific, measurable, achievable, relevant, and time-bound indicators used to monitor and evaluate the timeliness and appropriateness of the implementation. The monitoring and evaluation plan should apply selected indicators from the Closure and Data Collection report template and enable the lead implementer to complete the CTCN Closure and Data collection report at the end of the assignment. UNIDO guidelines will be also taken into account (a template will be provided) (in English);
- iii. Prepare a one-page description of intended outcomes and impacts of the project, that considers gender dimensions, formulated in the beginning of the technical assistance and updated/revised once the technical assistance is fully delivered. This is in order for the country to have a communication document and disseminate in relevant events the objectives, anticipated impacts and alignment with INDCs and SDGs of the current project (a template will be provided) (in English);
- iv. Complete a closure and data collection report at the end of the technical assistance (a template will be provided) (in English);
- v. Prepare a GCF Interim Progress Report covering the period from 1 January to 30 June and from 1 July to 31 December during the entire duration of the technical assistance (a template will be provided);
- vi. Prepare a financial statement in accordance with consistently applied accounting standards, audited on an annual basis by registered independent auditors or audit firms.
- vii. Prepare a GCF Completion report once the technical assistance is finalized (a template will be provided) (in English).
- viii. Prepare a final audited financial report, audited by registered independent auditors or audit firms.

Deliverables	Delivery date
i. Detailed work plan (English)	1 month after contract signing
ii. Monitoring and evaluation plan (a template will be	1 month after contract signing



United Nations Industrial Development Organization

provided) (in English)	
iii. Impact description (a template will be provided) (in English)	1 month after contract signing 18 months after contract signing or once the technical assistance is completed
iv. CTCN Closure and data collection report (a template will be provided) (in English)	18 months after contract signing or once the technical assistance is completed
v. GCF progress interim report (a template will be provided) (in English)	Every 5 January and 5 July during the entire duration of the technical assistance
vi. Annual audited financial statement, audited by registered independent auditors or audit firms.	12 months after contract signing
vii. GCF completion report (a template will be provided) (in English)	Not exceeding 18 months ¹ after contract signing or 5 days after the technical assistance is completed
viii. Final audited financial report, audited by registered independent auditors or audit firms.	Not exceeding 18 months ² after contract signing or 5 days after the technical assistance is completed

These deliverables will be budgeted from the budget assigned to outcome 1.

Outcome 1: Institutional capacity and coordination mechanisms in place to govern and coordinate climate action and finance

Sub-outcome 1: Coordination mechanism established

Activity 1: Institutionalization of a coordination mechanism for the implementation of the TNA

The activity includes identifying key stakeholders (public, private and civil society) and facilitating their participation. Civil society includes engagement of the private sector, NGOs and academia and will be facilitated through bilateral meetings between experts/ stakeholders. The effort will be coordinated by the office of the NDE, in consultation with the NDA.

Activity 1.1. Conduct stakeholder’s analysis

This activity aims at defining stakeholders to be directly involved in a National TNA Committee running the project, including government ministries and associated organizations, private sectors, research

¹ The precise timeline to submit the completion report will be agreed upon and settled prior to contract signing.

² The precise timeline to submit the final audited financial report will be agreed upon and settled prior to contract signing.



United Nations Industrial Development Organization

organizations and gender focal points. Two days stakeholders' workshops will be conducted during this activity.

It is anticipated that the engagement of stakeholders across the public and private sectors of Iraq will be resource intensive. The Government of Iraq has been active in the NDC development, but an opportunity exists to engage more civil society, business, NGOs, academia and more vulnerable groups to this process.

Gender aspects will be also taken into account through equal representation of women and men as well as through participation of gender focal points and associations that promote gender equality and the empowerment of women (GEEW).

Stakeholder identification early within this project will aid the targeting of 8 regional training seminars on modules, including gender awareness tools to enhance implementation capacities. The regional training seminars will be conducted later on as the TNA process advances.

Deliverable 1.1	Delivery date
i. Stakeholders analysis report, including a stakeholder matrix.	2 months after signing contract
ii. Two-day workshop developing matrix	

Activity 1.2 Support establishment of a TNA Committee

The TNA Committee and constitution in place will be responsible for appointing key stakeholder groups and ensure their participation and engagement during its execution. The TNA Committee will include representatives from the public, private, and academic sectors and consider gender balance and appropriate representation. The NDE and NDA will play a large role in supporting the establishment of the TNA Committee.

The input from the Iraq NDE and NDA will be critical to shaping and informing the TNA and associated action plans from the outset but also interfacing with the CTCN and its host organisations UNIDO/UNEP. Iraq's Ministry of Environment is working on strengthening its institutional capacity by expanding the mandate of the climate change center to serve as a national center to enable it working at the national level. This Center will engage with the proposed Centralized TNA office in place for coordination of activities within this proposal. This National Center is responsible for all communications at the national level with all related national focal points, committees, and authorities to facilitate projects and find the solutions.

This activity will include establishment of a centralized office for TNA coordination and so enable a coordination mechanism to commence (Month 3). It will also provide training on TNA processes across all stakeholders over 2 workshop sessions (Month 3-4). Additionally, it will include the importance of understanding and applying environmental and social safeguard approaches, including incorporation of gender considerations throughout the process, developing the TNA and prioritizing technologies.

Institutionally, Iraq is underdeveloped in terms of having a centralized coordination to deliver multi-sectoral and multi-partner engagement. For example, Iraq has not conducted a national inventory since 1997 and has not established a centralized mechanism to enable structured engagement across private



United Nations Industrial Development Organization

sector entities, vulnerable groups, technology providers and key stakeholders from civil society and consider gender balance and appropriate representation.

A centralised coordination unit is proposed to coordinate the development, but more importantly, the implementation of the TNA. It would be the focus for stakeholder engagement (especially vulnerable groups), be a convening power for public and private stakeholders and ensure that the project implementation by the national and international consultants is delivered with the highest level of impact and best value for money considerations.

Deliverables 1.2	Delivery Date
i. National TNA Committee Constitution in place to inform work of TNA Committee.	3 months after contract signing
ii. Set up of a centralized office for coordination of TNA activities	3 months after contract signing
iii. A report on the workshop on TNA processes, which will highlights the level of capacity built among stakeholders and will highlighted lessons learned in the context of TNA processes	4 months after signing contract

Activity 1.3: Development of a work plan for monitoring and oversight

The work plan will define and schedule TNA meetings to be conducted in Baghdad and regional cities (Basra and Mosul). Venues will be assigned by the Ministry for Health and Environment. Stakeholders engaged in the TNA committee will be engaged in contributing to the work plan.

The TNA Committee will be engaged at all important steps of the TNA process to ensure national consultation and country ownership of the process and results of the work. In month 3, 4, 6, 9, 12 and 15 as per the schedule indicated in the GCF proposal under activity 1.2, the Committee will take stock of current activities and will provide coordination support and recommendation as needed, at the various stages of the process: prioritization of technologies, development of action plan, national consultations and dissemination of action plan.

The activity involves promoting a comprehensive participation of key stakeholders across all sectors in the development of a work plan.

Deliverables 1.3:	Delivery date
i. TNA work plan	4 months after contract signing
ii. Endorsed TNA Constitution document, citing the roles/ responsibilities of main stakeholder groups in the TNA process and method of engagement.	4 months after contract signing
iii. Report of the 1 st Committee's meeting	3 months after contract signing
iv. Report of the 2 nd Committee's meeting	4 months after contract signing
v. Report of the 3 rd Committee's meeting	6 months after contract signing



United Nations Industrial Development Organization

vi. Report of the 4 th Committee’s meeting	9 months after contract signing
vii. Report of the 5 th Committee’s meeting	12 months after contract signing
viii. Report of the 6 th Committee’s meeting	15 months after contract signing

Outcome 2: Country Programming process

Sub-outcome 2.1: Technology solutions identified and prioritized in accordance with national strategies and plans

Activity 2: Prioritization of technologies and relevant action for increased access to finance

Activity 2.1: Pre-selection of sub-sectors for the fulfilment of Iraq’s TNA

The objective of this activity is to identify and obtain consensus about priority sectors (and subsectors) to shape the TNA. This will build on the Republic of Iraq’s NDC and UNFCCC (draft) communication and associated sectoral plans and policies.

The first sub-activity aims at assessing the Iraq Government’s sectoral plans and proceedings from the technology workshops conducted, where stakeholders aimed to establish sectoral priorities for the fulfilment of TNA. Considering the energy and environment national policy development over the past 5 years and the NDC and National Communication, such selection of 4 sub-sectors: (i) energy (ii) industry (iii) water and (iv) agriculture.

The purpose of this project is to clearly identify the most suitable sub-sectors and validate this outcome with key stakeholders in a series of workshops. These sectoral priorities will allow for technology identification for mitigation and adaptation and a drafting of the TNA and action plan. Activities include assessing national policies, including development plans, private sector development strategies and existing national policies for private sector engagements and enhanced energy/ environmental performance.

Deliverable 2.1	Delivery date
i. Report describing the methodology used for sector and subsector selection. Indicatively, this could be 4 sectors with equal allocation to technologies for mitigation and adaptation and 4-6 technologies for each sub-sector, including rationale and executive summary delivered and alignment.	5 months after signing contracting

Activity 2.2: Validate, prioritize and assess feasibility of key technologies for the fulfilment of Iraq’s TNA

Knowledge on mitigation and adaptation sectors for prioritization are identified within the NDC but the measures and technology priorities have not been explicitly detailed. A workshop review of existing



United Nations Industrial Development Organization

measures, initiatives and commitments has identified the following sectors as ones where preliminary assessment could commence: (i) energy (ii) industry (iii) water and (iv) agriculture.

The objective of Activity 2.2 is to validate, prioritize and assess the feasibility of key technologies, aligned to Iraq’s energy and environmental policies and international commitments, available competencies and natural resources. A market assessment of each technology will underpin this process and the end deliverable will be a number of fact sheets that translate themselves into concrete, scalable and financially robust project proposals that will feed into the pipeline of the GCF, subsequently supporting its country programming.

This activity will focus on identifying and obtaining consensus about priority technologies by sector to fulfil the NDC. Such outcomes will be validated by key stakeholders through a series of 4 workshops. With this, priorities for the fulfilment of the NDC will be defined, and together with factsheets for each prioritized technology, will allow for the drafting of the technology action plan.

There is a lack of robust data for the selection of key technologies aimed at implementing the NDC identified priorities. Furthermore, Iraq has not conducted a national inventory since 1997 and so lacks consistent technical information. The establishment of a data collection system would support the indication of low carbon and environmentally sound technologies and enable assessment on trends to inform future projections.

Deliverables 2.2	Delivery date
<ul style="list-style-type: none"> i. Report on the 4 validation workshops. These validation workshops elaborate processes conducted. ii. Final reports including a mitigation TNA report and an adaptation TNA report resulting from technology prioritization, feasibility and market assessment. iii. Technology fact sheets per prioritized technology and TNA briefs, summarizing main findings, recommendations and next steps. These facts sheets are a concrete set of activities to be implemented by Iraq in a time bound fashion and this would subsequently support Iraq’s country programming. iv. Operationalized data collection system for use by the NDA/ Government to enable assessment on trends to inform future projections. 	8 months after signing contracting

Activity 2.3: Development of Technology Action Plan(s) per sector and /or sub (sector), quantifying the impact of priority technologies within each sector per action plan

This activity aims to develop a Technology Action Plan (TAP) that quantifies the potential impact of priority technologies. The process for the development of this TAP(s) will involve a number of interviews and consultations with key stakeholders across the public, private and academic setting and will target various experts depending on the (sub) sectors and technology prioritized.



United Nations Industrial Development Organization

The key output will be an identification of programmatic activities, financial costs and a framework identifying the critical path of actions to be undertaken to meet the Iraq’s climate objectives when implementing the TNA.

The Technology Action Plan should:

- Elaborate very detailed project ideas (circa 15 pages), including time frames and estimated budget requirements to deliver on ideas;
- Articulate project idea objectives, outputs, relation to national policy priorities, deliverables, activities, and monitoring/evaluation methods;
- Consider elements such as research on the prioritized technology, capacity-building, financial schemes, pilot projects and technology demonstration;
- Include a market assessment (that could include analysis of value chains, risks and overall barriers to implementation);
- Include gender assessment of the technology;
- Consider regulatory, institutional, financial and information frameworks that may prevent the accelerated development of markets for identified prioritized technologies;
- Determine technology impact potential in terms of Iraq’s GHG emissions reduction targets (conditional and unconditional), employment impact, potential co-benefits (mitigation and adaptation) resulting from the implementation of technologies prioritized.

Deliverable 2.3	Delivery date
i. Report and executive summary of each Technology Action Plan for each of the priority technologies in compliance with the TNA. It will consist of a TAP providing projects implementation proposals for each prioritized sector.	14 months after signing the contract

Sub-outcome 2.2: Stakeholder engagement in consultative processes

Activity 2.4: National Consultation exercise to ensure national ownership and technology deployment

This activity aims to engage in consultations with the TNA Committee and key stakeholders to discuss and validate the technology action plan. The forum will enable experience sharing, idea generation, lessons learned and best practices.

This is aimed at assisting identified stakeholders with the familiarization of identified technologies, to enhance technical capacity, operation and maintenance, and data collection. Common methods utilized for that process included: interviews with experts and stakeholders; market mapping and problem trees; dedicated workshops; desk studies; and logical problem analyses.

A 2-day workshop in Baghdad to validate the technology action plan will be conducted and an analysis of co-benefits elaborated (20-30 stakeholders and key institutions).

Deliverable 2.4:	Delivery date
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United Nations Industrial Development Organization

i. Meeting report of the workshop for the validation of the technology action plan and an analysis of co-benefits elaborated, including the participation list and photo documentation.	16 months after signing the contract
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Activity 2.5: Support the implementation of the Technology Action Plan with communications, guidance and training

Delivery of a capacity building package for TNA key stakeholders, including training and support materials for the development and application of prioritized technologies. Relevant participants will include the NDA, NDE, GCF and GEF focal points.

Stakeholders will be provided with 8 regional training seminars on modules including (a) market mapping and problem trees to enable them to become more familiar with identified technologies, (b) gender awareness tools to enhance implementation capacities, (c) access to financing of prioritized technologies across domestic and international sources, and (d) technical capacity, operation, maintenance and data collection.

This activity aims to develop tools that will enhance existing data monitoring and inventory techniques associated with the Iraq’s energy system. This will assist in data inventories, measure identification and energy projections, financial assessments of technology project ideas and marginal abatement cost curves.

Deliverables 2.5:	Delivery date
i. Report on the 8 regional training seminars, including material and tools, list of participants and photo documentation. ii. Report on a dissemination strategy. iii. Market use cases for technologies resulting from stakeholder engagement. iv. At least 3 policy briefs informing the regional workshops.	18 months after signing the contract

Outcome 3: Climate finance strategies strengthened, private sector mobilized and project pipeline enhanced

Sub-outcome 3: Private sector engagement

Activity 3.1: Reviving the SME atmosphere and enabling environment through innovative new business identification training programme

This activity involves engaging with the private sector/ SMEs within Iraq and assisting in the identification of Iraqi business needs and exploring new business opportunities in climate technology. The activity involves creating an appropriate enabling environment for SMEs that will be facilitated through training workshops and creation of a business development strategy.



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Two training workshops will be organised, that mobilize SMEs and private sector input and provides input into a strategy aimed at fostering innovation through new businesses via accelerators, incubators and start-up companies across the technologies identified within the action plans.

There is potential here to foster industry and academic collaboration by including research entities into this initiative. This could focus on how to foster business accelerators, incubators and start-ups.

Deliverables 3.1	Delivery date
i. Report on the 1 st training workshop conducted, including materials, tools, a list of participants and photo documentation. It will provide a detailed summary of the workshops proceedings, recommendations provided by the private sector stakeholders engaged and a list the private sector engaged.	9 months after signing the contract
ii. Report on the 2 st training workshop conducted, including materials, tools, a list of participants and photo documentation. It will provide a detailed summary of the workshops proceedings, recommendations provided by the private sector stakeholders engaged and a list the private sector engaged.	12 months after signing the contract

5 GENERAL TIME SCHEDULE

CTCN technical assistance activities under this contract have an expected duration of up to eighteen (18) months from the contract signature. The proposed plan for the implementation of activities and deliveries is presented in the following table:

Outputs	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	Activity 0. Development of planning and communication documents																	
D.i. Detailed work plan	*																	
D.ii. Monitoring and evaluation plan	*																	
D.iii. Impact description	*																	*
D.iv. CTCN Closure and data collection report																		*
D.v. GCF progress interim report	<i>Every January and July</i>																	
D.vi. Annual audited financial statement												*						
D.vii. GCF completion report																		*
D.viii. Final audited financial report																		*
O1.1: Effective coordination mechanism																		
A1. Institutionalization of a coordination mechanism																		
A1.1. Conduct a stakeholder's analysis																		
D.i. Stakeholder mapping report		*																
Dii Two-day workshop developing matrix		*																
A.1.2 Support to the establishment of a TNA Committee																		



United Nations Industrial Development Organization

Di. National TNA Committee Constitution			*																
D ii. Set up of a Centralized office for coordination of TNA activities			*																
D iii. A report on the workshop on TNA processes				*															
A.1.3: Development and endorsement of TNA Committee work plan for monitoring and oversight																			
D.i. TNA Committee work plan				*															
D.ii. Endorsed TNA Constitution document				*															
D.iii. Report of the 1st Committee’s meeting				*															
D.iv. Report of the 2nd Committee’s meeting				*															
D.v. Report of the 3rd Committee’s meeting							*												
D.vi. Report of the 4th Committee’s meeting									*										
D.vii. Report of the 5th Committee’s meeting										*									
D.viii. Report of the 6th Committee’s meeting																*			
O2.1: Technology solutions identified and prioritized																			
A.2. Prioritization of technologies and relevant action for increased access to finance																			
A.2.1. Pre-selection of sub-sectors																			
D.i. Report describing the methodology utilized for sector and subsector selection and prioritization					*														
A2.2. Assess, prioritize and validate key technologies																			
Di. Report of the 4 validation workshops									*										
Dii Final reports including a mitigation TNA report and an adaptation TNA report.									*										
D.iii. Technology fact sheets per prioritized technology and TNA briefs,									*										
D.iv. Database in most suitable format									*										
A.2.3. Development of a TAP per sector																			
D.i. Report and executive summary of each TAP for each of the priority technologies in compliance with the TNA.																*			
O.2.2: Stakeholder engagement in consultative processes																			
A.2.4. National consultation workshop to ensure national ownership and technology deployment																			
D.i. Workshop report including a full list of participants and photo documentations																*			
A.2.5. Support the implementation of the TAP with communications, guidance and training																			
D.i. Report on the 8 regional training seminars, including material and tools																			*
D.ii. Report on the dissemination strategy																			*
D.iii. Market-use cases for the selected technologies																			*
D.iv. Policy briefs (At least 3)																			*
O3. Private sector engagement																			
A.3.1. Enhancing SME capacity and enabling environment through innovative new business identification training programme																			
D.i. Report on the 1st training workshop conducted									*										



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D.i. Report on the 2st training workshop conducted													*						
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All drafts and final deliverables are subject to approval by the CTCN Climate Technology Manager and UNIDO, before these can be considered as completed.

6 PERSONNEL IN THE FIELD (PROFESSIONAL EXPERIENCE AND QUALIFICATIONS)

The bidder shall as a minimum present the following qualifications of the team. Additional qualifications and experts may be added to the proposal.

Position title	Minimum qualification requirements	Necessary experience
Team Leader	- Master’s degree in project management/ climate change adaptation and mitigation/ or other relevant education	<p>Essential</p> <ul style="list-style-type: none"> - Minimum 7 years of relevant expertise; expertise in climate change adaptation and mitigation work with a focus on technology transfer, project management, high-level negotiations; - Familiarity with the UN process, technology needs assessment methodology and technology actions planning; - working experience in the country (Iraq) highly desired - Language skills: excellent command of oral and written English and Arabic is required. - Experience in conflict and post-conflict countries.
International Experts	- Master’s degree in, science/technology, natural resources management, business, climate change, engineering or other relevant field	<p>Essential</p> <ul style="list-style-type: none"> - 7 years’ experience of providing technical consultancy services within a developing country; - Experience of developing national plans that involve rigorous assessment of technology options and sectoral analysis at a country or regional level; - Familiarity with the UN process, technology needs assessment methodology and technology actions planning; - Experience of engaging with multiple actors in the development of initiatives aimed at building regional/national capacity in developing countries; - Facilitation skills in delivering dedicated training workshops around the technology needs assessment process; - Experience of conducting technology



United Nations Industrial Development Organization

		<p>prioritisation and multi-criteria analysis;</p> <ul style="list-style-type: none"> - Nexus experience across agriculture, water, energy and waste specifically in developing countries; - Language skills: excellent command of oral and written English and Arabic is required. - Experience in conflict and post-conflict countries. <p><u>Highly Desirable</u></p> <ul style="list-style-type: none"> - Understanding of wider policy measures and drivers to overcome barriers to the deployment of technologies and sectors for climate change mitigation and adaptation; - Knowledge of enabling environments and stimulus for SME development.
Local Experts	<ul style="list-style-type: none"> - A formal academic qualification in, science/technology, business, engineering, climate change or other related field. 	<p><u>Local experts required across the prioritised sectors and technology subsectors</u></p> <p><u>Essential</u></p> <ul style="list-style-type: none"> - Experience of developing, facilitating and delivering stakeholder workshops and group facilitating aimed at engaging multiple actors; - 7 years' experience of energy, industry and agriculture sectors within Iraq; - 5 years' experience of industrial policy development within Iraq; - Awareness of the methodology of technology needs assessments and/ or technology actions plans; - Fluency in Arabic language, fluency in English highly preferred <p><u>Highly Desirable</u></p> <ul style="list-style-type: none"> - Understanding of wider policy measures and drivers to overcome barriers to the deployment of technologies and sectors for mitigation and adaptation. Knowledge of enabling environments and stimulus for SME development.
Gender specialist	<ul style="list-style-type: none"> - Master's degree in gender studies or other discipline with focus on the field of gender issues in a developing country context 	<ul style="list-style-type: none"> - At least 5 years working experience with gender mainstreaming issues in a developing country context; - Knowledge and experience of gender mainstreaming in climate change adaptation and mitigation; - Fluency in Arabic language, fluency in English highly preferred. - Experience in conflict and post-conflict countries.



United Nations Industrial Development Organization

The CVs of the respective experts assigned to this project by the Contractor must be provided.

Full qualification requirements for the contractor, including specific requirements of the proposed team are in the Evaluation criteria, which is an annex to this ToR.

7 LANGUAGE REQUIREMENTS

The working language for the purposes of this project is Arabic and English, thus an excellent command of both Arabic and English is required of the proposed personnel. The final deliverables must be submitted in English. The technical and financial proposal under this tender must also be submitted in English.

All delivered documents must be of such a quality, that no further editing will be required.

8 DELIVERABLES SCHEDULE

The table below details the indicative schedule for this assistance.

Activity 0: Reporting and communication Deliverables:	Delivery date
i. Detailed work plan (English)	1 month after contract signing
ii. Monitoring and evaluation plan (a template will be provided) (in English)	1 month after contract signing
iii. Impact description (a template will be provided) (in English)	1 month after contract signing 18 months after contract signing or once the technical assistance is completed
iv. CTCN Closure and data collection report (a template will be provided) (in English)	18 months after contract signing or once the technical assistance is completed
v. GCF progress interim report (a template will be provided) (in English)	Every 5 January and 5 July during the entire duration of the technical assistance
vi. Annual audited financial statement, audited by registered independent auditors or audit firms.	12 months after contract signing
vii. GCF completion report (a template will be provided) (in English)	Not exceeding 18 months ³ after contract signing or 5 days after the technical assistance is completed
viii. Final audited financial report, audited by registered independent auditors or audit firms.	Not exceeding 18 months ⁴ after contract signing or 5 days after the technical assistance is completed

³ The precise timeline to submit the completion report will be agreed upon and settled prior to contract signing.

⁴ The precise timeline to submit the final audited financial report will be agreed upon and settled prior to contract signing.



United Nations Industrial Development Organization

Sub-outcome 1: Effective coordination mechanism between NDA and National Designated Entity (NDE) for the UNFCCC Technology Mechanism and other climate finance	
Deliverables 1.1:	
i. Stakeholder analysis report report, including a stakeholder matrix	2 months after signing contract
ii. Two-day workshop developing matrix	
Deliverables 1.2:	
i. National TNA Committee Constitution in place to inform work of TNA Committee.	3 months after signing contract
ii. Set up of a centralized office for coordination of TNA activities	3 months after contract signing
iii. A report on the workshop on TNA processes, which will highlights the level of capacity built among stakeholders and will highlighted lessons learned in the context of TNA processes	4 months after signing contract
Deliverables 1.3	
i. TNA Committee work plan	4 months after contract signing
ii. Endorsed TNA Constitution document	4 months after contract signing
iii. Report of the 1 st Committee's meeting	3 months after contract signing
iv. Report of the 2 nd Committee's meeting	4 months after contract signing
v. Report of the 3 rd Committee's meeting	6 months after contract signing
vi. Report of the 4 th Committee's meeting	9 months after contract signing
vii. Report of the 5 th Committee's meeting	12 months after contract signing
viii. Report of the 6 th Committee's meeting	15 months after contract signing
Sub-outcome 2.1: Technology solutions identified and prioritized in accordance with national strategies and plans	
Deliverable 2.1:	
i. Report describing the methodology used for sector and subsector selection. Indicatively, this could be 4 sectors with equal allocation to technologies for mitigation and adaptation and 4-6 technologies for each sub-sector, including rationale and executive summary delivered and alignment.	5 months after signing contract
Deliverables 2.2:	
i. Report on the 4 validation stakeholder workshops . These validation workshops elaborate processes conducted.	
ii. Final reports including a mitigation TNA report and an adaptation TNA report resulting from technology prioritization, feasibility and market assessment.	8 months after signing contract
iii. Technology fact sheets per prioritized technology and TNA briefs, summarizing main findings, recommendations and next	



United Nations Industrial Development Organization

<p>steps. These facts sheets are a concrete set of activities to be implemented by Iraq in a time bound fashion and this would subsequently support Iraq’s country programming.</p>	
iv.	Operationalized data collection system for use by the NDA/Government to enable assessment on trends to inform future projections.
Deliverable 2.3:	
i.	Report and executive summary of each Technology Action Plan for each of the priority technologies in compliance with the TNA. 14 months after signing the contract
Sub-outcome 2.2: Stakeholder engagement in consultative processes	
Deliverable 2.4:	
i.	Meeting report of the workshop for the validation of the technology action plan and an analysis of co-benefits elaborated, including the participation list and photo documentation. 16 months after signing the contract
Deliverables 2.5:	
i.	Report on the 8 regional training seminars, including material and tools, list of participants and photo documentation. 18 months after signing the contract
ii.	Report on a dissemination strategy.
iii.	Market use cases for technologies resulting from stakeholder engagement. At least 3 policy briefs informing the regional workshops.
Sub-outcome 3: Private sector engagement	
Deliverables 3.1	
i.	Report on the 1st training workshop conducted, including materials, tools, a list of participants and photo documentation, including materials, tools, a list of participants and photo documentation. 9 months after signing the contract
ii.	Report on the 2nd training workshop conducted 12 months after signing the contract