

Please fill in the form in the grey spaces, by following the instructions in italic.

Requesting country:	<i>Jordan</i>
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Request title:	<i>Seeking Financial Support for Project Implementation</i>
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Contact information:

{Please fill in the table below with the requested information. The request proponent is the organization that the request originates from, if different from the National Designated Entity (NDE).}

	National Designated Entity	Request Applicant
Contact person:	<i>Eng. Hanadi Marie</i>	<i>Basel Burgan - Akram Madanat</i>
Position:	<i>Head of Climate Change Adaptation section</i>	<i>Vice President - President</i>
Organization:	<i>Ministry of Environment</i>	Karak Star for Recycling
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Postal address:	<i>P.O.Box 1408 Amman</i>	<i>773 – Amman 11118 - Jordan</i>

Technology Needs Assessment (TNA):

{Select one of the three boxes below:}

- The requesting country has conducted a TNA in (please insert date of TNA completion)*
- The requesting country is currently conducting a TNA*
- The requesting country has never conducted a TNA*

{If the requesting country has completed a TNA, please indicate what climate technology priority this request directly relates to. Please indicate reference in TNA/TAP/Project Ideas.}

CTCN Request Incubator Programme:

{Please indicate if this request was developed with support from the Request Incubator Programme:}

- Yes*
- No*

Geographical focus:

{Select below the most relevant geographical level for this request:}

- Community-based*
- Sub-national*
- National*
- Multi-country*

{If the request is related to the sub-national or multi-country level, please indicate here the areas concerned (provinces, states, countries, regions, etc.)}

Theme:

{Select below the most relevant theme(s) for this request:}

- Adaptation to climate change*
- Mitigation to climate change*
- Combination of adaptation and mitigation to climate change*

Sectors:

{Please indicate here the main sectors related to the request. e.g. energy, industry, transport, waste, agriculture/fisheries, forestry, water, ecosystem/biodiversity, coastal zones, health, education, infrastructure/human settlement, tourism, businesses, early warning/disaster reduction, institutional design and mandates, cross-sectorial}

Energy, Industry, Agriculture, Waste, Water.

Problem statement *(up to one page):*

{Please describe here the difficulties and specific gaps of the country in relation to climate change, for which the country is seeking support from the CTCN. Please only provide information directly relevant to this request, and that justifies the need for CTCN technical assistance.}

Reproducing recycled Carton & Paper (C&P) is electricity and heat intensive industry to break the fibers of the recycled product and reproduce by molds a sellable commodity, such as pocketed Eggs or Fruit Trays for fresh produce packaging. Ordinarily, the energy which feeds into recycling C&P to produce Egg Trays is generated from fossil fuel. Today's electricity generated in Saudi Arabia is sold at the subsidized Kw-h price of U\$ 0.03. This is four times less expensive than the average Kw-h cost of electricity in Jordan, equivalent to U\$ 0.125 for medium size industries. This is why the production from recycled C&P moved out of Jordan years ago, down to Saudi Arabia, where fossil energy is highly subsidized for all kind of industry. Jordan became an importer of Egg Trays for its Egg Farms produce. On the other hand, Jordan is not used to package fresh fruits into recycled C&P trays. Instead, polystyrene trays are used which are not biodegradable and might cause a hazard to herd animals (like goats & sheep) since when such animals swallow broken polystyrene pieces, it blocks there intestines and eventually die within days.

This project aims at returning the industry of Egg Trays production from recycling C&P inside Jordan with Zero Emissions. The project will depend on producing electricity from Solar PV panels along with a hybrid support of a Wind Turbine for the cloudy days. Karak Star aim to divert all C&P Solid Waste into our industry, which otherwise this solid waste ends up in landfills (a main stress on municipality's workload). The recycling will become a source of income for impoverished communities to collect the C&P waste. This collection of C&P will be, instead of being burned or dumped in Jordan landfills, recycled into Egg & Fruits Trays - an industry that will depend on Renewable Energy instead of fossil fuel to produce Egg Trays.

Jordan consumes 120'000 Egg Trays per day, which are all imported from Saudi Arabia. The aim is to reach zero emission and supply 15% of this demand on daily basis during our first year of work. The Karak Star for Recycling project will compete with the SA product and will expand from 2nd to 3rd year to cover 30-40% of the Jordanian Market Egg Trays demand till at one time to cover up 100% of this demand with Zero Emissions.

Past and ongoing efforts (up to half a page):

{Please describe here past and on-going processes, projects and initiatives implemented in the country to tackle the difficulties and gaps explained above. Explain why CTCN technical assistance is needed to complement these efforts, and how the assistance can link or build on this previous work.}

In the past there have been small industries in Jordan for recycling C&P products. The Karak Star for recycling project is specifically intending to take C&P waste and recycle it into light molded trays for the packaging and transport of agricultural goods such as eggs and apples and other fruits.

The model of our project was in practice in Jordan in the past, however rising electricity tariffs in Jordan forced all such manufacturing industries to leave Jordan and re-establish in Saudi Arabia. As a result, today ALL paper molded products such as egg trays are imported into Jordan from Saudi Arabia where fossil fuel is highly subsidized.

The elements of the industrial process for making recycled paper products from cardboard require great power input. First old cardboard and paper is shredded, then put in a vat with water and heated to make a pulp, the pulp must then be rolled out evenly onto trays and those trays pressed into molds. The paper pulp in molds then is dried in a low oven to the point that no water residue remains.

Karak Star for Recycling proposes to restart C&P recycling in Jordan and resume production of molded trays for agricultural packaging. Our production methods will incorporate solar power & wind in a hybrid system of energy production to enable paper processing be done in Jordan at a competitive cost of manufacturing.

Local paper and cardboard recycling will redirect waste paper away from the landfills of Jordan). It will produce a packaging product (egg and fruit trays) for which there is an established demand, reducing imports, improving the national economy by generating local employment. Jordan consumes 120,000 egg trays per day. Karak Star aims initially to produce 15,000 egg trays per day, rising with time to meet the maximum of existing demand but with clean energy and zero emissions.

Assistance requested (*up to one page*):

{Please describe here the scope and nature of the technical assistance requested from the CTCN and how this could help address the problem stated above and add value vis-à-vis the past and on-going efforts. Please note that the CTCN facilitates technical assistance and is not a project financing mechanism.}

The project capital investment is U\$ 310'000 of which

- **Solar PV System of 100 Kw-h is U\$ 84'000.---**
- **Wind Turbine 15 Kw-h as backup U\$ 25'000.---**
- **Egg Trays Molding machine U\$ 100'000.---**

Total U\$ 209'000.---

The assistance needed is in funding any of the above three main components of the production facility.

Expected benefits (*up to half a page*):

{Please outline here the medium and long-term impacts that will result from the CTCN technical assistance, including how the assistance will contribute to mitigate and/or adapt to climate change.}

The impacts of funding will be:

- **Zero Emissions since Karak Star is depending on Renewable Energy**
- **Water Recycling which will reduce water consumption**
- **Community empowerment by creating new jobs**
- **Reducing pressure on Landfills which will reduce fire hazards**
- **Stopping Trays import from fossil fuel subsidized markets**

Post-technical assistance plans (*up to half a page*):

{Please describe here how the results of the CTCN technical assistance will be concretely used by the applicant and national stakeholders, to pursue their efforts of resolving the problems stated above after the completion of the CTCN intervention (list specific follow-up actions that will be undertaken).}

Assess the production of the facility and its adherence to the plan.

Assess final product satisfaction of the market needs.

Assess employment of labor and its community empowerment

Evaluate the success of the industry in term of profits and possibility of replication

Evaluate the function of the Hybrid electricity system and its independence from the grid

Assess water recycling capabilities

Key stakeholders:

{Please list in the table below the main stakeholders who will be involved in the implementation of the requested CTCN technical assistance, and what their role will be in supporting the assistance (for example, government agencies and ministries, academic institutions and universities, private sector, community organizations, civil society, etc.). Please indicate what organization(s) will be the main/lead counterpart(s) of CTCN experts at national level, in addition to the NDE.}

Stakeholder	Role to support the implementation of the assistance
Ministry of Environment	Follow-up the implementation of this project (as a NDE for CTCN) by annual progress report submitted by Karak Star for Recycling
Ministry of Industry & Trade	Assuring correct adherence of kind of production to company certification
Ministry of Energy & Mineral Resources	Licensing the Renewable Energy structures and allowing connection to the Grid (NEPCO)

Alignment with national priorities (up to half a page):

{Please demonstrate here that the technical assistance requested is consistent with documented national priorities (examples of relevant national priorities include: national development plans, poverty reduction plans, technology needs assessments (TNAs), LEDS, NAMAs, TAPs, NAPs, sectorial strategies and plans, etc.). For each document mentioned, please indicate where the priorities specifically relevant to this request can be found (chapter, page number, etc.).}

According to Jordan Third National Communication (Submitted in 2014) ; this project is in-line with our national priority in Mitigation and Adaptation which is Energy, Water and Agriculture Sectors. We also can refer to our INDC and Jordan Vision 2025

Development of the request (up to half a page):

{Please explain here how the request was developed at the national level and the process used by the NDE to approve the request before submitting it (who initiated the process, who were the stakeholders involved and what were their roles, and describe any consultations or other meetings that took place to develop and select this request, etc.)}

Karak Star for Recycling contacted directly the UNIDO officer in charge (Ms. Karina Larsen) who directed the project owners to the CTCN Jordanian contact focal point.

Expected timeframe:

{Please propose here a duration period for the assistance requested.}

10 months would be needed to get all needed certifications and approvals and to purchase, ship & install the machinery, employ the workers and start production.

Background documents:

{Please list here relevant documents that will help the CTCN understand the context of the request and national priorities. For each document, provide weblinks if available, to attach to the submission form while submitting the request. Please note that all documents listed/provided should be mentioned in this request in the relevant question(s), and that their linkages with the request should be clearly indicated.}

- 1) **Third National Communication (<http://unfccc.int/resource/docs/natc/jornc3.pdf>)**
- 2) **Jordan INDC (<http://www4.unfccc.int/submissions/INDC/Published%20Documents/Jordan/1/Jordan%20INDCs%20Final.pdf>)**

Monitoring and impact of the assistance:

{Read carefully and tick the boxes below.}

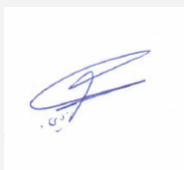
- By signing this request, I affirm that processes are in place in the country to monitor and evaluate the assistance provided by the CTCN. I understand that these processes will be explicitly identified in the Response Plan in collaboration with the CTC, and that they will be used in the country to monitor the implementation of the CTCN assistance.
- I understand that, after the completion of the requested assistance, I shall support CTCN efforts to measure the success and effects of the support provided, including its short, medium and long-term impacts in the country.

Signature:

NDE name: Hanadi Marie / Ministry of Environment

Date: 19/1/2016

Signature:



THE COMPLETED FORM SHALL BE SENT TO THE CTCN@UNEP.ORG

Need help? The CTCN team is available to answer questions and guide you through the process of submitting a request. The CTCN team welcomes suggestions to improve this form.

>>> Contact the CTCN team at ctcn@unep.org