

# Circular Economy in the Humanitarian Sector in Jordan

December 2021  
Jordan

## CONTEXT

Jordan hosts one of the largest numbers of refugees relative to its population in the world, sheltering displaced persons from Syria, along with asylum seekers and migrants from other countries.

In 2020, faced with the emerging COVID-19 pandemic, the Jordanian government announced a set of measures to limit the spread of the virus and provided incentives to address immediate liquidity and costs of financing concerns for various sectors, businesses, and vulnerable households. In spite of beneficial measures, the lockdown impacted negatively Jordan's economy, and elevated the unemployment rate to reach 24.7% in the 4th quarter of 2020.<sup>1</sup>

As a strategic objective, the United Nations Environment Programme (UNEP) aims to continue supporting countries in West Asia in Building Back

Better post COVID-19, with a special focus given towards the role of the humanitarian sector in Jordan and its contribution to shifting to a more circular economy.

In full collaboration with partners in the region, the main objectives of the partnership between UNEP on one hand and the NGOs ACTED, and IMPACT Initiatives (IMPACT) on the other, are to assess the landscape of Circular Economy (CE) activities being implemented under the 2020-2022 Jordan Response Plan (JRP), identify gaps and opportunities for further growth of such activities under the plan, and develop actionable guidelines and tools to support partners further integrating CE into their activities.

## Assessment sample

Total number of KIs reached: **24**

15 Implementing partners

5 Donors

4 Government stakeholders

## Coverage

For this assessment, the following definitions were used:

### Humanitarian Sector in Jordan

Programs or projects that support the implementation of the JRP, and actors implementing these programs or projects.

### Programmes focused on CE

Those programs implemented in support of the JRP (humanitarian actors) which do any of the following:<sup>2</sup>

- Minimise waste and pollution
- Keep products and materials in use
- Regenerate natural systems



## Circular Economy

### Circularity

Restorative and regenerative by design, circularity aims to extract the largest utility use of products, components and materials. Ultimately, CE aims to decouple global economic development from finite resource consumption through engaging in a continuous positive development cycle that preserves and enhances natural capital, optimises resource yields, and minimises system risks by managing finite stocks and renewable flows.<sup>3</sup>

## Humanitarian Sectors in Jordan with Elements of Circular Economy

### Economic empowerment

Interventions related to the sector of economic empowerment are interlinked with ensuring support for livelihoods of refugees and vulnerable Jordanians and increasing food security. Flagships circular humanitarian interventions relate to sustainable agriculture and using circular techniques to promote resource efficiency and green economy.

### WASH

Circularity can gain a foothold in the WASH sector in Jordan through increasing the sustainability of water use through treatment and reuse of wastewater in economic activities, water harvesting and increasing the community awareness about environmentally friendly practices of water use.

### Public services

The assessment identified circularity in projects related to the management of solid-waste, capturing energy from biogas and bio-fuel resulting from waste and engagement with the community in areas of recycling and environmental protection. These interventions improve the quality of public service delivery.

<sup>1</sup> The World Bank, The World Bank In Jordan, Washington. 14 June 2021

<sup>2</sup> Definition adapted from Ellen MacArthur Foundation definition of circular economy. Available [online](#).

<sup>3</sup> Ibid.



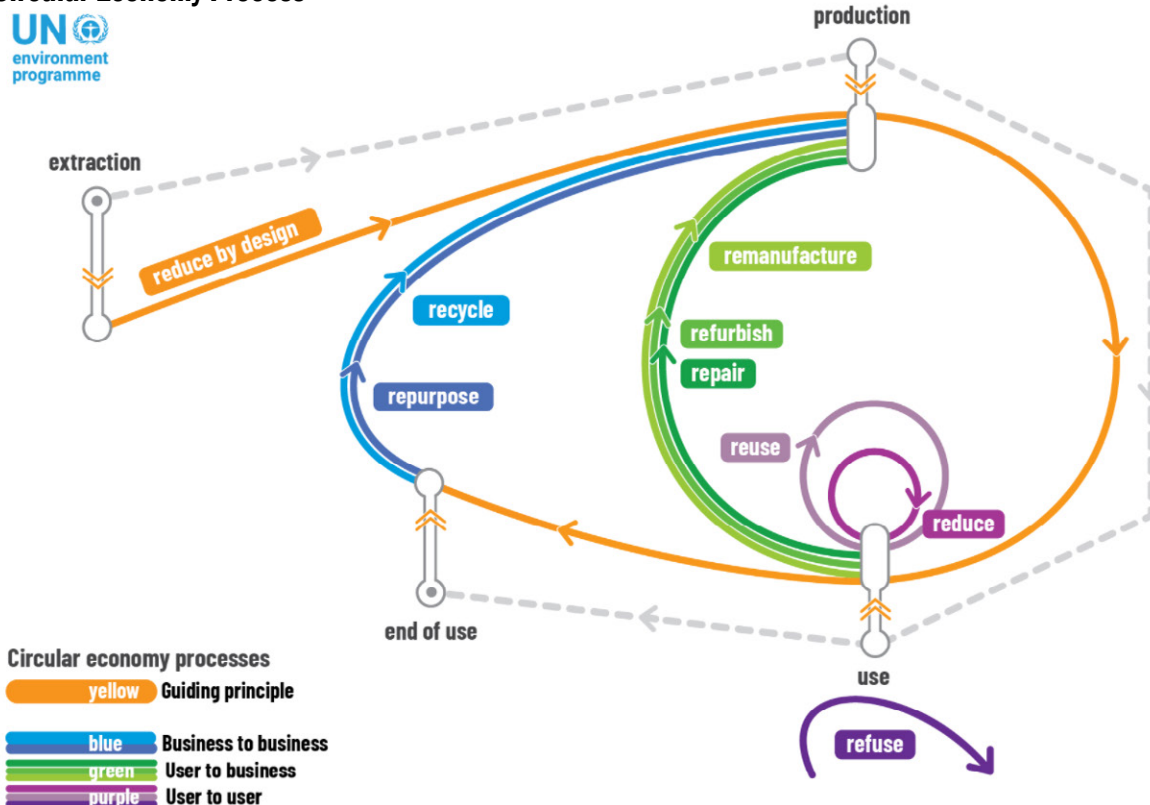
## Definition of Circular Economy

The CE model is a concept in which products and the materials used in an economic process are highly valued, and unlike the dominant linear model, inputs are kept within the economy as much as possible, thus reducing waste to a minimum. It may include reusing, repairing, refurbishing and recycling existing materials and products and turning "waste" into valuable resources.<sup>4</sup> CE is designed to have an impact on the greenhouse gases emissions and production, with a considerable input of renewable resources, materials and products that are recovered at the end of their use-life.<sup>5</sup>

In the humanitarian sector, CE refers to any activity aiming to decrease the volume of non-recovered waste produced, extend the use-life of inputs or alleviate interventions' pressure on the natural ecosystems and reliance on finite natural resources; with a direct impact on the use of natural resources and decreased pressure on the environment as well as contribution to addressing societal needs with environmentally responsible and extended value chains. However the role of CE extends beyond environmental protection as the UNEP highlighted already in a report from 1999. The report underlined the trend that the causes of both international and intranational conflicts increasingly seem to be linked to deteriorating environmental conditions, such as deforestation, soil erosion, desertification, flooding and pollution. According to the same source, "the maintenance of good environmental conditions and resources may hold one of the keys to future peace".<sup>6</sup>

Furthermore, as reported by ACTED CE approaches have the potential to increase access to livelihoods through creation of jobs, increase the value extraction from economic activities, increase productivity of resources, reduce government expenditures and improve accessibility of public services.<sup>7</sup> With a localised approach, including communicating the right message to the right stakeholders, engaging with various humanitarian actors active in the response and creating the environment for investment and expansion, Circular Economy could become a primary solutions to environmental crises experienced worldwide.

## The Circular Economy Process<sup>8</sup>



<sup>4</sup> European Parliamentary Research Service (EPRS), "Closing the loop: New circular economy package", 2016. Available [online](#).

<sup>5</sup> Stefanakis AI, Nikolaou I (2021) Circular economy and sustainability, Volume 1. Elsevier Publishing

<sup>6</sup> UNEP Information Note, UNEP (1999). Available [online](#).

<sup>7</sup> ACTED, "Circularity as a lifeline for MENA economies in distress" (2021). Available [online](#).

<sup>8</sup> UNEP circular economy approach. Available [online](#).



### Programmatic Actor Mapping of Interventions with CE Components

#### Donor Involvement in Programming in Jordan involving circularity elements

<b>17</b>	3 AFD	1 KFW	1 JICA
	1 Adaptation Fund	1 South Korea	1 GEF
	1 EBRD/DFID	1 Taiwan	1 Norway Innovation
	1 IFAD	1 BPRM	1 SYCTOM
	1 Italy	1 SDG	1 World Bank

<b>4</b>	<b>Canada</b>
<b>5</b>	<b>USAID</b>
<b>5</b>	<b>BMZ</b>
<b>11</b>	<b>EU-MADAD</b>

#### Programme Mapping Methodology

Findings from key-informants about programs including elements of CE were complemented by a thorough secondary-data review of programs about which information was available online or from follow-ups with key-informants. Data was then tabulated and stakeholders mapped with the goal of having a clear picture of the CE activities implemented under the Jordan Response Plan.

### Humanitarian Projects with Circular Economy Elements in Jordan

This section presents a non-exhaustive list of projects that were identified to have one or more elements of circularity. Where available, a hyperlink to the project page was attached. A full programme mapping, with information related to main donors of these programs, funding and implementing partners is available in the main report.

- Smart Desert Project
- Green Affordable Homes
- Solid Waste Management Centre of Excellence
- Hydroponic Farming in Azraq Camp, NRC (internal funding, 2021)
- Shelters and Settlements, NRC
- EER (Equitable Electricity for Refugees)
- Resilience and water optimization for Syrians and Jordanians
- Improving living conditions of Syrian refugees in Za'atari Refugee Camp through the construction of a stormwater drainage system
- Improvement of Green Infrastructure in Jordan through Labor-Intensive Measures (CWWGI)
- Providing sustainable work opportunities to refugees and vulnerable Jordanians in the agricultural sector in Jordan
- Community Mobilization for the WASH Programme in Za'atari
- Enhancing resilient livelihoods and food security of host communities and Syrian refugees in Jordan and Lebanon through the promotion of sustainable agricultural development
- Non-revenue water (NRW) Phase I and II
- Recycling in Jordan
- Climate and Resource Protection through Circular Economy in Jordan
- Municipal Services and Social Resilience Project (MSSRP)
- Resilience and Social Cohesion Programme (RSCP)
- Jordan Cities Implementing Transparent, Innovative and Effective Solutions (CITIES)
- EU Support to the Implementation of the National Solid Waste Management Strategy

Jordanian Municipalities Support Project from the Federation of Canadian Municipalities (JMSP)

EU support for the establishment of a Monitoring Information System on Municipal Solid Waste (IS-MSW)

Enhancing Women Participation in the Solid Waste Management Sector in Jordan

Developing solid waste management and generating income in the host communities/ Rehabilitation of Al-Ekaider landfill

Northern Shouneh recycling center

Employment through labor intensive infrastructure in Jordan

Towards a more inclusive economy through immediate job creation and enterprise development for vulnerable refugees and host communities in Jordan

Improving solid waste management for host communities and Syrian refugees in Azraq city - Zarqa Governorate

Dealing with Waste More Effectively/ ADHOC2

Waste to (positive) Energy

HELIOS (Enhancing the Social Inclusion of Nets) and the blue economy

Increasing the resilience of poor and vulnerable communities to climate change

Solid Waste Management in Zaatari

Solid Waste Management in Public Schools, Good Neighbours (funded by South Korea, 2018-2022)

Protection of Water Dams in Jordan

Environmentally Responsible Solid Waste Management Programme and the Green Centre in Azraq Camp (World Vision)

Improve rural livelihoods and the environment through the integral utilization of residues of treated waste water and organic solid waste for the production of renewable energy and compost in Mafrq governorate of Jordan

Rural Economic Growth and Employment Project

Water Innovations Technologies (WIT)

Wadi Al Rayan Project

Waste Water to Biogas



## Executive Summary: Circular Economy in the Humanitarian Sector in Jordan Report

Jordan hosts one of the largest numbers of refugees relative to its population in the world, sheltering displaced persons from Syria, along with asylum seekers and migrants from, among other countries, Egypt, Iraq, Pakistan, Sudan, Palestine and Yemen. As the vast majority of refugee and migrant communities live in host communities, the Government of Jordan (GoJ), in partnership with national, international non-governmental organisations (N/INGOs), and international institutions have been working to provide durable solutions to the people in need.

In order to address the challenges posed by the Syria crisis, the GoJ has developed and leads the Jordan Response Plan (JRP). The role of JRP is to reduce pressure on Jordan as a host country and improve living conditions and self-reliance, while supporting Jordan in maintaining the quality of services provided for Syrian refugees in host communities and vulnerable Jordanians. The 2020-2022 JRP aims "to create a more inclusive and aligned plan in the hopes of decreasing the vulnerability of both refugees and host communities and provide longer-term sustainable solutions that will result in tangible effects on beneficiaries".<sup>9</sup> The relevance of the JRP is even more important, as the country is burdened by an extreme scarcity of water and a low level of natural resources. The population growth, along with droughts, transboundary tensions over water resources could lead to an environmental crisis, on top of the pre-existing vulnerabilities influenced by the Syria crisis.

Jordan was one of the first countries in the region to explore the prospects for a green economy through a study supported by UNEP in 2010 "Towards a Green Economy in Jordan".<sup>10</sup> The study reviewed the state of investments in Jordan and the implications for a transition towards a green economy. The research tackled the economic, social and environmental challenges of Jordan, and identified the sectors that appear to offer a significant potential for green investment to drive a transition towards a green economy. In 2013, UNEP continued its support to Jordan in transitioning to a green/circular economy through the EU-funded SwitchMed programme which included the development of the Sustainable Consumption and Production National Action Plan (SCP-NAP) and the Pilot demo projects. During the development of the action plan in 2014, the Council of Ministers approved the establishment of the Green Economy Unit within the Ministry of Environment. As UNEP aims to continue supporting countries in West Asia in Building Back Better post COVID-19, special focus has been given towards the role of the humanitarian sector in Jordan and its contribution to shifting to a more CE.

Under the Resource Efficiency unit of UNEP Regional Office for West Asia (ROWA), and in full collaboration with partners in the region, the main objective of the partnership with the INGOs ACTED and IMPACT Initiatives (IMPACT) is to understand the landscape of CE activities being implemented under the 2020-2022 Jordan Response Plan (JRP). In this regard, this assessment (described on page 1) attempts to identify gaps and opportunities for further growth of such activities under the plan and develop actionable guidelines and tools to support partners further integrating CE activities into their interventions under the JRP.

For the purposes of this assessment, the following definitions were used:

**Humanitarian Sector in Jordan** – Programs or projects that support the implementation of the JRP, and actors implementing these programs or projects.

**Programmes contributing to CE** – Those programs implemented in support of the JRP (humanitarian actors) which do any of the following:

- Minimise waste and pollution
- Keep products and materials in use
- Regenerate natural systems

<sup>9</sup> Government of Jordan, The Jordan Response Plan 2020 - 2022. Available [online](#).

<sup>10</sup> UNEP (2010), Towards a green economy in Jordan. Available [online](#).





## The assessment was completed in three separate phases:

**Phase I: A comprehensive secondary data analysis** about the global outlook of CE in the humanitarian sector that informed the identification of sectors under the JRP that have the most potential of taking advantage of circularity in their interventions.

**Phase II: The second phase of research** comprised **the primary data collection** in the form of key informant interviews (KIIs) with national stakeholders, implementing partners and donors in Jordan. The research purposely sampled individuals from organisations relevant to the groups outlined above. Data collection was completed between October 14 and November 5, 2021. Interviews were mainly run in English or Arabic, with interviews transcribed into detailed notes. The primary data was complemented by a thorough desk review, with programme documents identified through the semi-systematic review then coded in line with the key themes that were identified in the conceptual framework. Qualitative analysis was conducted using statistical software such as Atlas Ti and Microsoft Excel, and key findings were drawn based on the disaggregation identified at the outset (topics and type of stakeholders). **A half-day workshop with selected actors in the humanitarian sector in Jordan** was also organized on December 15, 2021, to discuss findings and devise a set of recommendations for humanitarian actors wanting to implement circularity in their programming

**Phase III: The third phase of the assessment** included the development of a **toolkit** to guide stakeholders working in the humanitarian sector through the various steps of identifying existing elements of circularity and potential of shifting their programmes towards more circularity.

## Key Findings

Secondary data review and interviews with key informants revealed that among the seven sectors defined in the JRP, the areas found to have integrated elements of circularity in their interventions were **public services; water, sanitation and hygiene (WASH); and economic empowerment**. The majority of the circular interventions identified were found to be related to **increasing the awareness of the community about CE elements** such as the sustainable use of water, minimising waste or regenerative agricultural practices, the **management of solid waste**, inside and outside camps, **capacity building of public institutions and private actors, investments in the area of energy and treatment and reuse of wastewater**, among others. However, stakeholder mapping revealed that programmes that include CE interventions are widespread and include multiple areas of interventions.

Interviews with national stakeholders revealed that although the CE is not being systematically included in government strategies, elements of it could be identified within programmatic documents and governmental strategies. Notably, CE could be associated with GoJ's strategies to make its economy greener or more sustainable, such as the Jordan 2025 National Vision and Strategy, a plan which outlines the social and economic framework in a society that provides opportunities for all.<sup>11</sup> The Jordan 2025 vision is built around achieving fiscal sustainability, promoting rule of law and equal opportunities through increasing participatory policy making and strengthening of the public institutions.

In parallel with the Jordan 2025 Vision, UNEP performed a wide scale consultation with relevant stakeholders and drafted The National Strategy and Action Plan for Mainstreaming Sustainable Consumption and Production into Agriculture/Food Production, Transport, and Waste Management Sectors in the Hashemite Kingdom of Jordan (2016-2025).<sup>12</sup> The document aims to support the achievement of sustainable food production, transport, and waste management at the national level. The main goal of the programme is to integrate sustainable consumption and production patterns to be integrated into the national development agenda in Jordan.

The strategy of the humanitarian response in Jordan is defined under the JRP. The document comprises seven sectors of interventions: Public Services, Education, Health, Economic Empowerment, Social Protection and Justice, Shelter, and WASH. Each of the sectors are aligned with SDGs, Global Compact on Refugees, and the National Plans of Jordan.

<sup>11</sup> The Government of Jordan, Jordan 2025 Vision and Strategy. Available [online](#).

<sup>12</sup> UNEP (2016), The National Strategy and Action Plan for Mainstreaming Sustainable Consumption and Production into Agriculture/Food Production, Transport, and Waste Management Sectors in the Hashemite Kingdom of Jordan (2016-2025). Available [online](#).



A desk review of the interventions under the JRP revealed the potential components of circularity are not explicitly mentioned in the document. However, improving solid waste management (SWM) practices and increasing the access to WASH interventions of refugees and vulnerable populations could benefit from the CE as well as most livelihoods-focused activities. Since the population of Jordan is estimated to grow by 2% annually, and the technological capacity of Jordan to improve SWM practices is limited, improving service delivery through re-use of natural resources could be a solution to resource scarcity.<sup>13</sup> Moreover, as Jordan is one of the most water-scarce countries in the world, with an average availability of water of approximately 135 m<sup>3</sup> per capita, applying circularity in the water management could be a feasible option to fill the water needs gaps.<sup>14</sup>

Despite the majority of the stakeholders expressing a good awareness of environmental protection and integrating environmental support practices in their programming, only a few were able to clearly outline concepts of CE and mention a deliberate approach towards integration of circularity in their programming. However, when KIs were given examples of interventions which contain circularity elements, they could easily match concepts of circularity with actual programmes. The lack of awareness of circularity was due to the novelty of the topic, which was often confused with more well-defined topics such as environmentalism.

In terms of barriers limiting CE potential in Jordan, KIs highlighted competing priorities that resulted in missed opportunities, especially when it comes to taking full advantage of the valuable nature of waste, such as the use of compost from mixed municipal waste and treated sludge as fertilisers in agriculture or the reuse of treated wastewater for irrigation of a larger variety of crops. Some KIs reported also a societal reluctance to seeing waste as valuable in general. Technological limitations such as lack of technical expertise and a (perceived) high initial investment cost were also noted as barriers in the implementation of circularity in the humanitarian sector.

The implementation of environmental projects in the humanitarian sector in Jordan reportedly faces similar barriers, linked to challenges related to community support, with key informants pointing to a need of increasing community awareness as a recipe for success of these programmes. Inter-institutional collaboration was another aspect mentioned as a barrier in the implementation of activities that have environmental elements. This was highlighted especially by some key informants who believe that the implementation of environmental policies in Jordan is sometimes impaired by a lack of enforcement, related to a lack of clear roles and responsibilities or poor communication among the different entities involved.

Sustainability of projects related to circular elements was mentioned to be linked with a stable stream of finance. As such, the lack of funding of CE activities was mentioned in some KIs as a barrier to ensure the sustainability of activities. In turn, the short time span of the grants was also an issue affecting projects that contain circular elements. The ongoing changing of donor priorities was the second most-mentioned issue affecting sustainability of the projects. Especially after the COVID-19 crisis, the increase in the vulnerability of people of concern also affected the environmental projects from restructuring of funding towards financing livelihood projects. Nevertheless, CE helps ensure long-term returns on investments and creating synergies between government actors, donors, and communities could provide an impetus to circularity. Further, this may point to a misconception, as CE does not necessarily require large-scale capital investment and can enhance economic efficiency once implemented.

Interviews revealed a large interest in environmental elements from all three kinds of stakeholders who were part of the assessment (national stakeholders, donors and implementing organisations). However, despite few KIs expressing some advanced knowledge about CE, the overall impression was that circularity could benefit from a better articulation and strategy of implementation, first of all through creating awareness about the concept, and secondly from providing relevant examples of circular practices that exist in Jordan already or could be implemented under the current framework of operations.

Despite Jordan having remarkable progress in making its economy greener and more sustainable, the CE is only starting to become a point of interest among the main actors in the humanitarian sector in Jordan. Findings revealed that community support is essential for the CE to gain traction.

<sup>13</sup> Jordanian population growth projection. Available [online](#).

<sup>14</sup> Water consumption in Jordan. Available [online](#).



## Circular Examples in the Humanitarian Sector in Jordan

### Work Opportunities for Refugees and Vulnerable Jordanians in the Agricultural Sector in Jordan - ACTED

ACTED supports the agricultural sector in Jordan with training of cooperatives of farmers (Jordanian and Syrian farmers) in innovative agricultural practices including hydroponic farming, permaculture, azolla production, sustainable livestock farming, and beekeeping. Following the training, ACTED awarded cooperatives and selected individuals with grants to support targeted microbusinesses' development and access to markets, as well as allow cooperatives to operate relevant business and microfinancing solutions, encouraging the long-term sustainability of this intervention. In support of the project's goal to regenerate natural systems, ACTED facilitated a two-day event between actors in Jordan on topics related to ecosystem resilience and regeneration (including forestry and grassland management, climate change and carbon sequestration).

**Project name:** Providing sustainable work opportunities to refugees and vulnerable Jordanians in the agricultural sector in Jordan

**CE activities:** Innovative and regenerative agricultural training and building a community of practices around circular topics

**Implementing partners:** ACTED

**Donor(s):** Bureau of Population, Refugees, and Migration

**Budget:** USD 3,254,419

**Implementing period:** 2019 - 2021

### Resilience and Water Optimization in the Communities Hosting Syrian Refugees and Vulnerable Jordanians - Action Against Hunger (ACF)

ACF implemented a project aiming to reduce freshwater use at home through the adaptation of water saving technologies including rehabilitation of water connection systems. In this direction, the project team increased awareness of beneficiaries to improve the water conservation practices in their households. The project implemented the pilot installation of 13 graywater units for 24 households, and rehabilitated two small water supply infrastructures in communities benefiting approximately 343 households. In addition and to improve beneficiaries' food security, households were encouraged to establish home gardens for household-level food production through climate smart agriculture (CSA) practices.

**Project name:** Resilience and Water Optimization in the Communities Hosting Syrian Refugees and Vulnerable Jordanians

**CE activities:** Reduce fresh water use at household level, awareness raising, and home food production through CSA

**Implementing partners:** Action Against Hunger

**Donor:** Swiss Agency for Development and Cooperation (SDC)

**Budget:** Information not available

**Implementing period:** 2017-2020

### Hydroponic Farming Ad-hoc Initiative - Norwegian Refugee Council (NRC)

In light of the COVID-19 pandemic's negative effects on food security of vulnerable populations, NRC developed a hydroponic system initiative using recycled materials, allowing for the provision of supplemental food assistance to Syrian refugees in Azraq camp, without requiring significant land, labour or capital investment. As the hard soil and saline water in the Azraq area makes it hard to grow crops directly in the soil, NRC piloted the use of deep-water culture and Nutrient film technique (NFT) systems to grow eight crops as 'top up' items, supplementing traditional food assistance products distributed as "welcome meals."

**Project name:** Hydroponic in-camp farming pilot

**CE activities:** Hydroponic farming, water saving, and repurpose of materials

**Implementing partners:** Norwegian Refugee Council (NRC)

**Donor(s):** None, project is internally-funded

**Budget:** Minimal (project is implemented using repurposed materials)

**Implementing period:** 2020 - 2021



## Turning Challenges into Green Opportunities - The Food and Agriculture Organization of the United Nations (FAO)-run biogas plant in Za'atari Camp

The project uses the 16 tons of mixed municipal solid waste produced daily by camp residents in Za'atari and collected by Oxfam as well as the sludge collected from the wastewater treated at the local facility. The collected solid waste is delivered to FAO's in-camp manual recovery facility for sorting, which is performed by 34 female and 27 male refugees who are directly benefiting from income-generating opportunities created by the project. The refugee workers sort the plastic and metal waste, which is handed back to Oxfam for recycling. The sorted organic waste is then transformed into compost which can be used later in the enrichment of forests and pastures and the production of seedlings. Additionally, organic materials extracted from solid waste sorting are mixed together with sludge resulting from the treatment of wastewater at the local facility to feed a biogas plant, constituting a valuable renewable energy resource. Finally, the treated wastewater is also reusable as agricultural input, together with the compost.

**Project name:** Improve rural livelihoods and the environment through the integral utilisation of residues of treated waste water and organic solid waste for the production of renewable energy and compost in Mafraq governorate of Jordan

**CE activities:** Waste sorting, compost production, recycling, water treatment and reuse, and biogas production

**Implementing partners:** Ministry of Agriculture (MoA), National Agricultural Research Centre (NARC), and National Energy Research Centre (NERC)

**Donor(s):** European Union - Madad Fund and FAO

**Budget:** USD 3.3 million

**Implementing period:** 2017 - 2021

## Recommendations

Confronted with an increased number of people in need of humanitarian assistance in the past decade, the humanitarian sector is facing new challenges as the impact of crises is enhanced by environmental drivers, such as climate change, water scarcity, and resource depletion, among others. The inherent difficulties of implementing humanitarian programming is often enhanced by the global waste management crisis, which is more acute for recipients of humanitarian assistance, who often lack sufficient infrastructure to handle the externalities generated by these programmes.

Building on the findings of the CE Assessment in the Humanitarian Sector in Jordan, this section presents a series of recommendations for potential pathways of implementation for the CE in the humanitarian programming in Jordan, as well as in the three JRP sectors that were found to include CE elements: economic empowerment, WASH and public services. Recommendations were derived during consultations with three types of key stakeholders interviewed as part of the assessment in autumn 2021, from policy to implementation levels: implementing partners, donors and national (government) stakeholders. The recommendations are not exhaustive and represent a starting point for further discussions on the potential of integrating CE in the before-mentioned areas and sectors.

## Humanitarian Program Planning

In the humanitarian programme planning, consideration on how resources are included and used is a first step for a more circular response. As such, humanitarian actors could, at each step of programme planning, consider material inputs and outputs, as well as how a programme can contribute to keeping materials in use, designing out waste, and/or regenerating natural systems. Furthermore, action could be taken in considering the long-term benefits of further integrating sustainability in the humanitarian response as an integral part of the design, in a context of shrinking funding and protracted vulnerability.





## Implementing Partners

- Continue integrating elements of circularity within programmatic strategies through:
  - ▷ mainstreaming circularity in programmatic and/or organizational strategies.
  - ▷ consideration of circularity at the design and implementation phases.
  - ▷ tracking of specific indicators related to circularity at project, programme and organisational level.
- Continue designing and implementing circular activities in sectors relevant to the response through:
  - ▷ specific circular piloting.
  - ▷ dedicated circular projects.
- Sign and commit to the [Climate and Environment Charter for Humanitarian Organizations](#).
- Continue to engage with relevant national stakeholders on circularity.
- Create further synergies and partnerships with relevant stakeholders to foster a community of practices around circularity, and to bring in relevant expertise and experiences to “close the loops”.

## Donors

- Continue integrating and promoting elements of circularity through:
  - ▷ increasing the overall consideration of circularity in internal and external strategy documents
  - ▷ tracking specific indicators related to circularity at the program and organizational levels
  - ▷ considering cost/benefit ratios of implementing partners’ in relation to the medium- and longer-term expected gains in terms of circularity, including sustainability aspect
  - ▷ considering further funding scale-up circular projects based on demonstrated results of successful pilots.
- Continue encouraging multi-actor approaches in the response.
- Continue acting as facilitators and key stakeholders in a community of practices around the CE.
- Sign and commit to the [Climate and Environment Charter for Humanitarian Organizations](#).

## National Stakeholders

- Further promote the integration of the CE approach, in connection to the Green Growth National Action Plan 2021-2025.
- Continue to act as key stakeholders in a community of practices around the CE in Jordan.

## Economic Empowerment: Food Security/Livelihoods Activities

In a protracted crisis, like the crisis in Syria and its direct implications on Jordan, it is necessary to consider how integrating elements of CE can increase the long-term sustainability of humanitarian projects.

To increase food security for vulnerable populations in a non-emergency environment while addressing the needs for economic opportunities and sustainable livelihoods for both Syrians and vulnerable Jordanians, consider further investing in regenerative agriculture, agricultural livelihoods and green jobs. This will help the direct objective of increasing food security, while also supporting livelihoods’ creation and enhancement in the local market, in both rural and urban environment, in addition to contributing to the three aspects of circularity (regenerating natural systems, minimising/ designing out waste and keeping products and materials in use). Opportunities for circularity have been highlighted in the agricultural sector in Jordan, which are further deepened and expanded by the points raised on the next page.



## Implementing Partners

- Continue promoting successful circular and/or climate-smart practices in the agricultural sector, including:
  - ▷ hydroponic farming, permaculture and regenerative practices, beekeeping, and composting.
  - ▷ recovery and valorization of wastewater for agriculture (see WASH sector).
- Continue providing technical and financial support (such as seed grants) to, as well as support market access for entrepreneurs promoting circular concepts and activities, such as integrated farm management practices, to strengthen the sustainability of these (micro)businesses.
- Encourage eco-businesses and eco-innovation through reuse, refurbish, and recycling in all relevant sectors.
- Continue raising awareness and building the capacities of communities through localised training.

## Donors

- Continue to provide support for scaling up successful pilot circular projects in areas such as regenerative agriculture or other relevant activities.
- Continue encouraging eco-businesses and eco-innovation through reuse, refurbish, and recycling.
- Continue funding business development and marketing support to sustain circularity.
- Consider investing in implementing partners' projects which main objectives are focused around circularity.

## National Stakeholders

- Encourage farmers to rely less on water intensive crops including by providing market incentives for regenerative agriculture.
- Ensure the implementation of Ministry of Agriculture regulations on harmful agricultural practices.
- Consider using governmental regulations for providing market incentives for circular initiatives and businesses.
- Enforce enabling policies and regulations fostering circular potential in Jordan's relevant sectors such as Agriculture and Solid waste management.

## Water, Sanitation and Hygiene (WASH) Activities

Integrating elements of circularity in the WASH sector can help beneficiaries meet their WASH needs while increasing the resource-efficiency by minimising waste and keeping materials in use since as early as the project planning phase. This can be integrated at the household level, as well as on a larger scale in camps or municipalities for example. Additionally, proper treatment of wastewater can regenerate natural systems by decreasing contamination of natural systems.

## Implementing Partners

- Support greywater treatment and reuse systems for fodder and fruit crops and disseminate information amongst farmers on the safety of greywater reuse for said cultivars.
- Continue promoting the installation and use of water harvesting and water saving devices.
- Continue sensitising communities on good water practices, including water saving, conservation and reuse.

## Donors

- Continue investing in infrastructural circular WASH projects.
- Continue supporting WASH projects which promote and offer solutions to reducing consumption, harvesting and reusing water (including rainwater and treated wastewater).



## Donors (Cont.)

- Consider further supporting greywater recycling and reuse systems at the household, camp, and municipality levels as well as solutions for transforming bio-sludge waste into renewable energy and compost (pilots and beyond).
- Continue working hand in hand with government to build more enabling policies and regulations.
- Consider further supporting research and innovation for energy recovery from water and sludge, considering the large amounts of energy consumed by wastewater treatment plants.
- Investments in wastewater treatment should also consider the opportunity to create green jobs in both water treatment and water reuse post-treatment.

## National Stakeholders

- Consider adjusting government regulations to set up strong safety audit mechanisms allowing the safe use of treated wastewater for irrigation in agriculture beyond existing crops.
- Consider adjusting government regulations and setting up a strong safety audit to allow for treated sludge to be used as compost.
- Consider further supporting research and innovation for energy recovery from water and sludge.
- Support the establishment of multi-sectorial (private, public, and civil society) technical committees for activities such as knowledge building, technical guidance, and identifying potential partnerships.
- Investments in wastewater treatment should also consider the opportunity to create green jobs in both water treatment and water reuse post-treatment.

## Public Services (Waste Minimization and Energy) Activities

The public sector has been proven to have a significant impact on the environmental, social and economic issues through the prospective nature of its normal operations. In the humanitarian sector, CE activities related to activities in the area of public service delivery could impact populations beyond beneficiaries since public service delivery is in fact producing a public good. In Jordan, CE activities could be identified in the area of solid-waste management and energy production. As such, these activities not only increase the wellbeing of the general population but also provide livelihood opportunities for refugees and vulnerable Jordanians employed in these activities.

## Implementing Partners

- Consider all relevant possibilities to further minimise and design out project-level waste at the project planning phase.
- Where some waste is unavoidable (e.g., food packaging in food assistance projects), ensure a plan is in place to manage and recover it as much as possible, including looking at circularity opportunities.
- Consider partnering with other (local) stakeholders who are able to either keep materials in use or repurpose it.
- Help connect upcycling initiatives to designers and buyers in order to boost the marketability of upcycled products.
- Continue promoting improved household and business-level waste minimisation and segregation through sensitisation and capacity building.
- Continue providing beneficiaries with skills allowing them to access green jobs relevant to Jordan.
- Continue investigating opportunities to generate renewable energy from waste.



## Donors

- Support implementing actors in designing out waste in the humanitarian response from the programme planning phase and throughout all following project cycle phases.
- Consider further supporting income generating green jobs dealing with valuable waste outputs such as in the following fields: composting, upcycling, and renewable energy from biogas plants.
- Consider supporting the installation of small-scale biodigesters in farms and/or cooperatives as relevant, and support linkages between farmers and existing composting stations
- Continue investing in schemes and plants transforming waste into compost and/or energy, which will contribute to decreasing what winds up in the landfill and transform waste into a valuable material.
- Consider supporting international experience sharing by facilitating government study visits to other countries within the region and vice-versa.
- Invest in waste banks or storage spaces to help scaling up small and medium-sized recovery initiatives.
- Continue supporting government initiatives to setup sorting centres closer to municipal areas or transfer stations that are more easily accessible which will optimize transportation costs, minimise pollution and support the efforts of diverting recoverable waste away from landfills.
- Continue supporting Jordanian municipalities in designing and implementing relevant and sustainable Solid Waste Management plans.
- Continue working hand in hand with the government to build more enabling policies and regulations.
- Consider supporting the establishing of a systematic national reporting mechanism for CE.

## National Stakeholders

- Encourage partnerships between different stakeholders incl. private sector (such as linking private waste recovery actors with municipalities).
- Continue to optimise transportation costs by diverting recoverable waste away from landfills through the setup of sorting centres closer to municipal areas or transfer stations.
- Continue to conduct waste audits in Jordanian municipalities and institutionalize these audits.
- Continue the process of establishing a dedicated solid waste management unit within municipalities, to improve budgeting and more efficient allocation of resources.
- Continue following up on the implementation of the Jordan National Energy Strategy including employment outcomes and development of the grid, to symbiotically increase its capacity to capitalize on inputs from green energy while supporting producers (such as biogas plants) to use treated sludge for renewable energy.
- Consider establishing CE units or task forces at relevant national or local levels to advise on resource efficiency in main sectors.