

Jordan

Innovation in Refugee Response 2018

In the wake of the Syrian crisis and the massive influx of refugees in Jordan, the UNHCR Jordan operation has attracted worldwide attention thanks to its unique approach to invest in new technology and partners with the Private Sector to support its refugee programmes. In recent years, the return of those smart investments has allowed UNHCR not only to reduce its expenditures and make its programmes more sustainable, but has also enhanced UNHCR's role as a catalyst to bring new, development actors to support refugees in the long-term. Eventually, refugees are the ones benefitting from new opportunities that give them the dignity of life to express their potential, reduce their dependency on aid while profiting from more accessible daily services. These provisions are in line with [UNHCR Global Strategic Priorities](#) and [the Sustainable Development Goals](#).



Renewable Solar Power Plant in Refugee Camps

In May 2017, funded by the IKEA Foundation, the first phase of a 2 MW renewable solar power plant was inaugurated in Jordan's Azraq refugee camp and brought renewable electricity to a refugee population that lived for two and a half years without electricity. In September 2018, UNHCR inaugurated a new extension of the solar power plant with the support of Jordanian company EDCO (Electrical Distribution Company). This 1.5 MW new addition takes the overall camp renewable generation to 3.5 MW which covers 55% of shelter electricity needs. Thanks to the newly constructed solar plant and electricity grid extension funded by the Saudi Fund for development, the whole camp population will now benefit from regular access to clean energy; this shall eventually be diverted to the local grid for the benefit of host communities when the camp shuts down in the future.

Prior to the construction, the lack of electricity made even daily activities difficult, such as cooking, washing clothes, studying or walking safely to the washroom at night. Now, solar power provides affordable and sustainable electricity to at least 40,000 Syrian refugees living in up over 10,000 shelters. Each family can have light inside the shelter, connect essential appliances such as fridges and fans, and charge their phones, an invaluable resource to keep in touch with relatives and friends abroad. Additionally, the further construction of a 1.5 MW off site has started and will be completed by May 2019. In total, Azraq refugee camp will be powered by a 5 MW solar power plant, which will cover 70% of the total quantity of energy required for the whole camp. It should be recalled that UNHCR, in partnership with the Government of Jordan, funded by KfW Development Bank have established the largest solar power plant providing 12 hours electricity per day in Zaatari refugee Camp. This renewable energy connects 100% of shelters in the camp via the newly renovated medium and low voltage power network support by the Government of Czech Republic. Japan International cooperation Agency (JICA) trained 109 refugees who now have been internationally accredited as electricians and who have been involved not only in the construction of this solar plant and network, but also in the ongoing maintenance of the whole electrical system.



Electricity Consumption and the Control System in Azraq Camp

UNHCR is exploring innovative options to control the electricity consumption at household level in Azraq refugee camp. During the December 2017 Safe Access to Fuel and Energy (SAFE) Workshop in Kenya, UNHCR met Schneider Electric who introduced a promising technologies called "Energy Dispenser". These 'smart devices' are linked to customized software that monitors energy consumption over periods of time to better inform how the network is managed and electricity is delivered to households. As of September 2018 UNHCR began a practical engagement with Schneider to support electrical monitoring on 24 shelters. These 24 energy dispensers are distributed across various locations of village 6 in Azraq refugee camp. This may present an opportunity for also future collaboration with Schneider whom can provide electrical vocational trainings for the refugees and host communities, with discussions ongoing on the setup a Schneider training centre in Azraq camp.



© EyeCloud – Enhancing the Delivery of Refugee Assistance

The © EyeCloud is a secure and encrypted network connection that can be used to authenticate refugees against biometric data stored in the UNHCR database. UNHCR uses biometrics (iris scanning) during the registration of refugees in Jordan. Iris scanning measures the unique patterns in a person's irises, which are used to verify and authenticate identity. Third parties like partner humanitarian agencies, banks and supermarkets can instantly authenticate refugees through the EyeCloud without sharing any personal or biometric data. It ensures that more refugees benefit from essential services and goods in a fast and dignified manner. The © EyeCloud guarantees the security of refugees' data and reduces fraud. 90% of the refugees currently in Jordan have been registered by UNHCR using iris scanning. The remaining 10% is either too young (under 3 years of age), too old (over 70 years), has congenital eye diseases or has experienced eye injuries. By using the © EyeCloud, the result of an innovative public-private partnership with the biometrics company IrisGuard and a local bank, UNHCR is the first agency ever to provide biometrically authenticated cash assistance to refugees. Additionally, it is important for donors that aid agencies can receive detailed reporting for the assistance disbursed, which improves reporting and complies with audit requirements. The platform was inaugurated in January 2016 by UNHCR. The system processes over 83 billion identity comparisons daily with an average 0.35 second response time.



The Common Cash Facility (CCF) – Partnering for Better Cash Assistance to Jordan's Refugees

The Common Cash Facility (CCF) is a platform used by 21 partners including UN agencies, the Government of Jordan and International NGOs to deliver more than 90 per cent of the cash assistance provided to the most vulnerable refugees in Jordan who live outside camps. It is based on an innovative public-private partnership between UNHCR, financial service providers such as banks and mobile wallet payment providers and the biometrics company IrisGuard. In Jordan, UNHCR uses iris scanning during the registration of refugees. Refugees withdraw cash from cash points using iris scanning without the need for a card or PIN. The iris scan authenticates the beneficiaries by linking to UNHCR's secure biometric registration data of refugees (iris scanning measures the unique patterns in a person's irises, which are used to verify and authenticate identity) through an encrypted network, © EyeCloud. Aimed at creating shared value for all organizations, the cash transfer arrangement was developed and procured by UNHCR and made available to all humanitarian partners on a direct and equal basis, with no management fees.

It provides value for money as it maximizes the impact of donors' funds: the agencies participating in the facility used to pay between 2.5% and 5% in bank fees, whereas a joint approach under the CCF has allowed them collectively to bring the cost down to 1% with surcharges. The fees for mobile wallet transfers are even lower. The lower costs of digital banking, coupled with economies of scale through several partners coming together, improve efficiency and allow CCF partners to reach more families. The Common Cash Facility is jointly managed by representatives from participating organizations. All humanitarian partners joining the facility – large and small – can access the financial service provider on an equal and direct basis, under the same terms and conditions and at the same record-low overheads, with no entry or exit barriers.



Self-Renewal Registration Centre for Beneficiaries

In 2018 UNHCR Jordan has started to implement a self-renewal methodology in registration procedures, the first operation globally to do so. The short-term objective of this innovative project is to empower persons of concern as data owners, by enabling them to validate and update data previously collected during registration. Self-renewal will save time for refugees when doing registration and renewal procedures, avoiding long waiting lines in UNHCR registration centres. The long-term objective of the project is to enable refugees to update their data remotely, and to have access to a unique, portable, authenticated digital identity, inter-operable with State population registries and Civil Registration and Vital Statistics systems. The self-renewal process will be managed through kiosks that include an Iris camera for biometric verification, a monitor, and a printer. 30 kiosks will be available in Amman, 10 in

Irbid and 10 in Mafraq. As of October 2018, the booths are being tested in Khalda Registration Centre as a pilot phase.



Mobile Payment Systems for Refugees

UNHCR Jordan has been able to harness innovative technologies available in the country to meet the different needs of refugees. One new innovation is the use of “mobile wallets” in an effort to increase financial inclusion. UNHCR is working with a Jordanian national mobile payment system. The system was originally developed in response to low rates of financial inclusion among Jordanians, with only 25% to 30% of Jordanians having access to digital financial services. There are five licensed mobile payments services providers (MPSPs) who are interoperable with mobile wallets, bank accounts, and prepaid cards. The mobile payments are designed to work through applications developed by the five MPSPs and also works on analogue phones and phones without internet connection. The expected impact is to expand refugees’ access to useful and affordable financial services that meet their needs – transactions, payments, savings and credits - in Jordan. As of October 2018, 686 refugee students enrolled in the DAFI Programme are using mobile wallets.



Mobile Web Application for Refugees to Increase Access to Services

Exchanging relevant information about accommodation availability and conditions, security of tenures, and highlighting nearby services for refugees living in urban areas has always been an issues and challenge. UNHCR Jordan aims to develop a mobile web application where UNHCR and beneficiaries can bilaterally exchange key information, about availability of shelters, conditions, guidelines, legal support, health, education and livelihoods in collaboration with software IT companies. Such platform could be used as a tool for beneficiaries to alert humanitarian actors about any vulnerable cases.



Alternative Building Materials for Shelters and UNHCR Offices

As a more cost effective, durable and light alternative to caravans made of sandwich panels, UNHCR is testing a new type of prefabricated light cement panel called Expanded Polystyrene (EPS). Various combination of structures can be designed. UNHCR is piloting EPS in Azraq refugee camp, at new staff offices made of these EPS panels. Cheaper and more durable than caravans, structures made of EPS can be built rapidly, offering better insulation and soundproofing. The lifespan of building made of EPS is for 70 years. Cost effective, the EPS panels can be also easily recycled.



Shelter Thermal Conditions Modification

UNHCR is currently undertaking a project with the University of Bath entitled “Healthy Housing for the Displaced”, which aims to identify, design and develop several prototype solutions in order to improve the thermal conditions of shelters built in Azraq and Zaatari refugee camps. Both camps suffer from extremes of temperature in summer and winter. The project began in August 2017 by modifying 12 T-shelters in Azraq with various low-cost technical options. The thermal conditions are monitored by sensors for 12 months from August 2018 to August 2019. Based on the result, the aim is to upgrade all the shelters in Azraq camp.

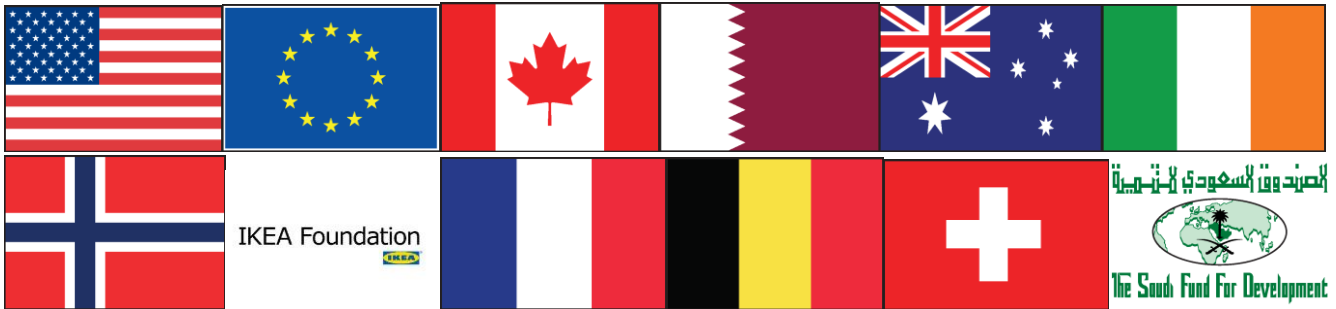


Water, Sanitation and Hygiene Project in Azraq camp

In January 2018, UNHCR participated in the Abu Dhabi Sustainability Week and connected with the German based company BAUER. This innovative company has developed and patented an environmental friendly wetland system, called “ReedBox”. The wetland is built into a shipping container, and the waste water is treated at low cost. The containers can be easily relocated to new locations when needed. In November 2018, UNHCR Jordan is

planning to pilot this technology in Azraq refugee camp as well as in urban settings. Thank to such technology, waste water will be treated in an environmental friendly approach allowing to re-use the treated water for irrigations. The system can be scaled-up in the future. The system can be temporarily used for remote field offices, health centres and refugee camp where more waste water treatment systems require heavy investment for implementation and maintenance.

Thank you very much for your generous donation. With support from donors, UNHCR can provide protection and assistance for millions of displaced people in need. Your support makes a huge difference to people who have lost everything.



CONTACTS – Francesco Bert, Senior External Relations Officer, bert@unhcr.org, +962 792562668