

Scaling up Sustainable Energy for Community Buildings in Refugee-hosting Areas

On 28 September, the WANA Institute, Chatham House, EDAMA, and the Norwegian Refugee Council (NRC) brought together 30 experts in Amman to discuss how to upscale sustainable energy investments in community buildings in Jordan.

The need for energy and water improvements for public and community-use buildings is clear. Participants spoke of hospitals without air conditioning or hot water during the summer months, schools that are overburdened by the double-shifts system, pupils that could not use computers for lack of power, houses of worship unable to pay high electricity bills after Ramadan, and lack of street lighting leading to safety issues in many poor and rural areas.

In order to meet the increased energy demands arising from the presence of Syrian refugees in host communities, energy efficiency and renewable energy measures must be accelerated in buildings across Jordan. This is highlighted in the Jordan Response Plan for the Syria Crisis, a three-year vision led by the Ministry of Planning and International Cooperation to ensure the integration of humanitarian aid and long-term national resilience. There are a number of donor and humanitarian actors interested in or already conducting projects in this area.

However, at present, there is a danger of these projects remaining nothing more than pilots if we do not plan carefully for their upscaling to ensure long-term sustainability, and facilitate community cohesion and create employment opportunities. This meeting discussed some of the obstacles:

- Savings from sustainable energy projects generally accrue to the ministries, with no mechanism in place to reinvest those savings in the facilities in question.
- The users and managers of a school or hospital may experience few benefits from using less electricity due to Energy Efficiency (EE) or Renewable Energy (RE) applications because the bill is covered at the ministry level.
- Energy projects can be blind to other community needs and thus miss the opportunity for greater impact.
- Opportunities to move beyond aid dependence and harness private company expertise or concessional financing are missed because of a lack of awareness and mechanisms to re-channel savings.
- The scale of the energy and water challenge in Jordan means it presents employment opportunities for both Jordanians and refugees with the right skills, but there is a need for clarity on workers' rights and training opportunities that match the skills needed for the market.

Recommendations

1. On Making Community Initiatives Sustainable

Community energy and water projects must consider the wider economic, social and environmental context. Experience discussed at the workshop showed that in order to benefit a community, it is not enough to simply install solar panels. While sustainable energy may be the focus for a donor, attention should also be paid to how to create a model in which a portion of the savings can be reinvested in the community's priority areas.

It was mentioned that when NGOs seek Corporate Social Responsibility (CSR) funds from the private sector to design and implant energy solutions, they need to address the private sector needs in a straightforward and clear way. It was also suggested that the private sector often wants to see rapid results and that there is a need to take into account the wider social context whilst devising a project to allow funds and time for impact assessments and follow up.

The local community needs to be an active player in identifying the needs. They should be given the opportunity to identify their needs and take part in envisioning and implementing the project. Additionally, they should be given the opportunity to take ownership and contribute to the investment, be it through donating a small amount of money or their time. This will increase the project's success and sustainability. Local innovations using low tech solutions can also be explored and appropriately adapted to communities in Jordan.

Where possible, project beneficiaries should contribute, financially or otherwise. One participant testified that "grants come and go quickly, yet enabling people to contribute - e.g. through revolving loans - brings dignity and sustainability". UNDP's experience of solar PV, lighting, and heating systems in Lebanon has also shown that institutions that paid a share of the capital expenditure showed higher engagement and benefit from the project. Another participant mentioned that ownership did not have to mean cash donations. The example of the decentralisation of zones in Zaatari camp was given, in which UNHCR had accorded each district with their own electricity transformer, promoting responsible use.

Projects should consider their effects on social cohesion. Participants also raised opportunities for sustainability projects to promote social cohesion by bridging societal divides between "the haves and the have-nots", as well as between locals and refugees. This can be facilitated through joint volunteer programmes, training and/or employment schemes, educational meetings and gatherings for facility users, and potentially through gaining business support and encouraging long-term relationships with the community.

3. On Sustainable Financing and Private Sector Engagement

Jordan needs to prepare to move past donor-funded energy strategies towards a system that allows the private sector and other local and national partnerships to take over. Some participants expressed their concern that ministries have become too dependent on donations and lack interest in finding other ways to reach budgetary and energy sustainability.

Many energy investments are feasible with the current tariff for public buildings so incentives to enable scale up should be explored. For example, a USAID pilot project has shown that investments in efficiency retrofits for public buildings are generally recuperated within one year, yet only the Ministry of ICT has gone ahead with one – and has already saved 5,000 JD. The savings generated by an NRC project installing solar panels on 23 schools (connected to the grid early January 2017) totalled 93,516 JD over 9 months – the average payback period for each school based on previous bills and installed system costs is 3 years, based on the average electricity bill cost before installation, and the cost of the installed system. Likewise, hospitals often face high diesel and electricity bills for basic needs such as hot water. It is estimated that the Moving Energy Initiative solar water heating project, which Millenium Energy Industries will conduct for Mafraq public hospital, will save around 32,000 JD each year.

Government and interested parties should work together to make transparent the utilities bill payment process for public buildings and the incentives for reducing bills at different levels.

Whilst the savings accrue to each ministry budget, it seems that ministries are not generally able to reallocate savings the following year and would simply receive less funding. In this case, savings may ultimately accrue to the Ministry of Finance. However, at present transparency is lacking. It was noted that savings in the overall ministry budget may not be considered as savings because of the existing utilities deficits. Gaps were apparent in participants' understanding of the utilities bill payment system for public buildings – as well as how deficits impacted on distribution companies and NEPCO.

If year-on-year savings were to be accurately accounted for and ring-fenced, it would be possible to use this money in a targeted way – for example, to make large-scale investments across a sector to save energy and further reduce bills, to offer grants for sustainable buildings upgrades to which the managers of public entities could apply, or to transparently reallocate funds to meet other needs in the buildings which had made the savings.

4. On Refugee Employment

Labour rights and the legalities of permitting for refugees should be made clearer for all players, including refugees, employers and humanitarian actors.

Several projects targeting enhanced energy and water supply, and efficiency are offering training or employment to refugees and Jordanians. There appears to be a significant potential for jobs in the green sector, from construction to retrofitting as well as in renewable technology

applications. However, labour rights and permitting are not always clear to humanitarian and development agencies or businesses.

At present, there are 5 areas in which Syrian refugees are allowed to work: agriculture, construction, manufacturing, wholesale and retail, and food and beverages. Green construction and manufacturing would appear good fits, yet participants were unclear on how various efficiency services and renewable energy related jobs would be treated. One participant noted that we should see construction differently. The basic components - mixing cement, welding pipes, electrical wiring - are all needed for energy and water efficiency and RE. These are in-demand skills to which green components can be added.

A host of misperceptions surrounds labour regulations for Syrians. As of August 2017, the government acted to discourage employer abuse of the system by allowing construction workers to apply for permits themselves and reduced the cost from 200 JD to 10 JD. Some Syrian refugees fear that applying for a work permit will endanger their access to food or cash assistance.

NGOs can support refugee incomes through targeted skills development programmes

Training is an issue of urgency. Various data sets suggest that education and training levels of Syrian refugees are exceedingly low. This situation is storing up major social problems for the future, as well as encouraging underpaid and untaxed informal labour markets. It was also noted that the more skilled refugees become, the more likely they are to leave for opportunities in the Gulf or elsewhere.

However, training programmes need to take on board humanitarian and local concerns. They may effectively be taking refugees out of other paid work so should be remunerated or linked to specific job opportunities. The example was raised of GIZ's planned centre for renewable energy technologies which will work with private sector companies to ensure training is for the skills they need and linked to jobs. Ideally, programmes should also train Jordanian locals, something actively encouraged by the JRP.

5. How to Better Invest Energy Cost Savings

Three options for solving the bill savings and reinvestment problem:

1. Devolution of budgets: Ideally, greater financial responsibility would be devolved to the local level, i.e. the ministry in question devolves some or all responsibility over the budget to local authorities for public buildings management. This creates incentives to invest in energy efficiency and renewable energy, and to use the cost savings to improve facilities.

2. A triangulation mechanism: In absence of this, a cooperation mechanism could be formed between the Ministry of Finance (MoF), the responsible ministry, and the building management to account for and redistribute the savings accordingly. This would require accounting of baseline and savings at the ministry level and the agreement of the MoF to transparently re-channel a portion of the budget to the building management. One participant mentioned that a

fund to redistribute savings from energy projects for schools is currently being planned between the Ministries of Education, Energy & Mineral Resources, and Finance and should be operational by early 2018. The potential to test and apply the model to other ministries should be explored.

3. Conditional aid: Some participants also suggested that donors and NGOs wishing to fund sustainable energy projects could provide aid on the *condition* that the government then funded a specific need as determined by the building management/users (e.g. a new classroom, equipment, an operating theatre etc.). This would require an initial agreement for the project between the donor/implementer, building managers and ministry to specify the determined investment in the building and at what point this would come, e.g. after proven bill savings of one year.

Whichever of the above pathways is chosen, a regulatory framework should be created to govern the accounting for and re-distribution of savings from the installation of efficiency retrofitting, and/or solar energy – rather than establishing an ad-hoc agreement every time a project is proposed.

An intra-ministerial and expert committee could be set up to clarify intra-ministerial coordination and approval processes, and set rules and guidelines for project funders, private and public sector to follow when investing in sustainability projects in public and community buildings. This committee could benefit from alignment with the JRP, although it would be preparing the ground for greater public-private partnerships, rather than just aid. It should create a framework for investment that reduces bureaucracy and streamlines the approval processes. There was a general agreement that this should emphasise 'efficiency first' approaches.

Awareness programmes should be carried out to show the importance of an energy audit and efficiency plan before investing in any renewable energy projects, as each building has a different set of energy needs with regards to their architectural design.

6. Transitioning Away from Aid-dependence with the Use of Revolving Loans

Donors, agencies and NGOs should design projects with the transition towards self-reliance in mind.

There are already mechanisms and experiences of sustainable funding for EE and RE on which to build. Jordan has its Renewable Energy and Energy Efficiency Fund (JREEF), which offers a sustainable model of green financing. Lebanon has the National Energy Efficiency and Renewable Energy Action used for energy efficiency initially funded by the EU, but now replenished through repayments. However, in both cases, the public sector is largely excluded as it has no capacity to pay by the loan.

Participants showed interest in supporting a revolving loan scheme at the municipal level that would enable public and community buildings to access loans for efficiency upgrades and solar energy with payment through savings. This would again either require budget devolution or

assurance and legal agreement at the ministry level that cost savings would flow back to the institution receiving the loan so that it could manage repayments.

Others pointed out that for Jordan to achieve its green growth ambition, some donor money should be channelled into increasing the capacity of Jordan's banking and finance sector to enable the market and promote practical cooperation between the private, public and business sector. Private finance could then be engaged to enable local business participation in community buildings activities.

The JRP could also begin to lay the foundations for a transition to market and other sustainable national funding mechanisms in the way it guides aid for sustainable energy and water priorities.

7. Next Steps

Workshop participants were in favour of a follow-up meeting to bring together relevant ministry officials to further clarify the budgeting and savings mechanisms needed and draw up a plan of action. To help facilitate solutions, participants were also in favour of an in-depth mapping of the process for managing utility bills on public buildings.