

Day / Track: 14 June / Track I: Renewable Energy Track**Workshop: From Diesel Generators to Renewable Energy in the Context of Crisis****Organizers:** UNITAR, UNHCR, Energy Program on Conflict, Climate Change and Green Development @ Berkeley**Target group:** International organizations, NGOs, private sector involved in development and energy

Most of our daily activities depend on our continual access to energy. Yet in spite of this, we rarely consider energy itself a necessity. We flick a switch for lighting, heating or cooking in our homes, we have reliable power in our hospitals and schools, and adequate energy for our business operations.

This situation is different in off grid and rural situations and even more difficult in refugee or crisis settings. In these circumstances, electricity - if at all - is produced with diesel generators. It is estimated that humanitarian agencies spend more than \$100million per year on diesel used to produce electricity, with UNHCR alone spending almost \$4million per year on purchasing new diesel generators. Agencies also pay large amounts for security, maintenance and operation costs for generators, in addition to logistics costs for delivery and storage of diesel and parts. Generators are mostly oversized with few controls or monitoring and there are many issues with maintenance and fuel theft. There are no systems for monitoring or evaluating electricity use nor for increasing efficiencies, reducing consumption & building energy awareness across humanitarian agencies. As a result, there is little data available on power provision and related costs and potential for savings.

At the same time, innovative, readily deployable and cost competitive renewable energy technology options are emerging, such as containerized solar systems that are easy to set up and maintain. Coupled with innovative business models that allow for the purchase of electricity rather than the systems, these options could safeguard reliable electricity supply while enabling the reduction of fuel cost for the humanitarian organizations.

This workshop will provide an overview of the situation and present cases from Tanzania, Djibouti and South Sudan. The audience is invited to a discussion with experts from international organisations.

Guiding questions:

- *What is the energy problem in humanitarian response settings for households and international organisations?*
- *What options exist to replace diesel generators in these settings?*
- *What are the benefits to change to renewable energy technologies?*
- *How could a business case look like to attract private capital?*

Time	Content	Resource person
14.00-14.45	Introduction: presenting the situation 1. "Introduction to the Energy Situation in Refugee Camps and how to change it with country cases of Tanzania and Djibouti" Thomas Fohgrub, UNITAR 2. "How renewable energy can serve as a building block for peace" - Energy Program on Conflict, Climate Change and Green Development @ Berkeley David Mozersky, Renewable and Appropriate Energy Lab (RAEL), UC-Berkeley (via Video) 3. "Renewable energy in conflict situations – is there a business case for private investors?" Hannes Mac Nulty, BG Consulting Engineers, Lausanne	Moderator: Gianluca Sambucini, Sustainable Energy Division, UNECE
14.45-15.30	Interactive discussion with the following panellists: <ul style="list-style-type: none"> • Ms. Roula Majdalani, Director Sustainable Development and Policies Division at UN-ESCWA • Thomas Fohgrub, Specialist Renewable Energy Solutions at UNITAR • Hannes Mac Nulty, BG Consulting Engineers 	