

**WG on Connectivity, Clean Energy and Sustainability in displacement settlements.
Nov. 10 at 14.45 CET - 15.50 (65 min)**

While the digital environment thrives, the natural environment degrades! How do we manage displacement in sustainable ways while the world is changing?

Connectivity is increasingly becoming the imperative tool to access assistance and services

Clean energy is an enabler of greening all sides of our huge operations globally.

Durable solutions to displacement demand **Sustainable approaches!**

We invite your questions in advance and thoughts and experiences to help developing programming according to this logic. We will address the topics and introduce methodology on assessing and implementing solutions.

We will remove waste in operations: Water, organics, energy, materials – and thereby also financial to ensure sustainable settlements for those displaced!

A cartoon illustration of a man with a large nose and wide eyes, wearing a dark suit jacket, looking at a smartphone on a desk. A speech bubble originates from the phone, containing the text: "I AM NOT YOUR DEVICE. YOU ARE MY DEVICE".

I AM NOT
YOUR DEVICE.
YOU ARE MY
DEVICE





Broadly speaking, the aim of the working group will be to:



- Compile examples, case studies and tools from field and the themes of connectivity, sustainability and clean energy.



- Provide a knowledge base of these examples and tools, making them available to CCCM practitioners.



- Raising awareness of existing global networks and initiatives to CCCM practitioners, linking them to domain experts and facilitating feedback of CCCM field perspectives to these networks.



- Advocate for the mainstreaming of connectivity, sustainability, and connectivity in CCCM activities.



This year the working group has been established and in March we held the webinar [on Digital-communication-and-clean-energy-in-responding-to-COVID-19](#)

The WG has already established collaboration with several ongoing initiatives like the GPA, NEAT, [The Global Plan of Action for Sustainable Energy in Situations of Displacement.](#)

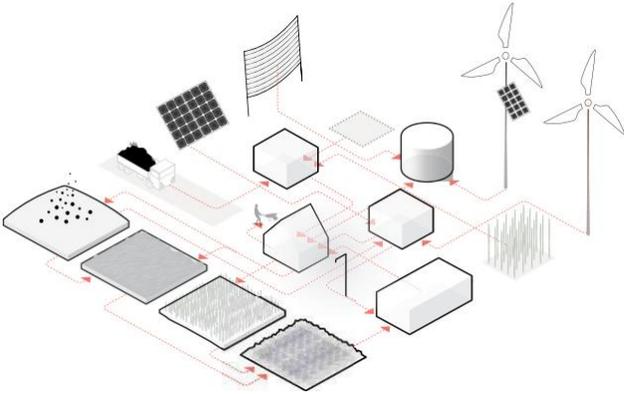
[The Environmental Emergencies Centre \(EEC\)](#) hosted by the UNEP/OCHA Joint Environment Unit (JEU) and the NEAT

[Global Shelter Cluster Environment Community of Practice](#)

We look forward to bringing you all onboard this important ARK – Sign up!

USTAINABLE ETTLEMENTS

**MAXIMISING THE SOCIAL, ENVIRONMENTAL AND ECONOMIC
GAINS IN HUMANITARIAN DISPLACEMENT SETTINGS**



The Sustainable Settlements project is a framework of existing and emerging technologies and methodologies to improve the social, environmental, and economic sustainability of settlements. Based on a holistic sustainability approach, the focus is on finding specific interventions which enable social improvement and sectorial collaboration as well as reducing negative consequences of environmental flows. <https://issuu.com/nrcnorcapcampshelterurban>

These approaches present opportunities for the humanitarian community to reduce impacts on the environment and lifetime costs of service provision whilst increasing value for money, impact, and efficiencies.

Most interventions in this catalogue are well known within the development and appropriate technology sectors and have been selected as those seen as most viable for NRC to implement and evaluate in displacement scenarios.

Achieving increased efficiency and sustainability within the humanitarian sector requires more than an increased focus on innovation and investment in new technologies. For many new and existing approaches to reach their full potential a willingness is required to investigate the current ways of working and the architecture of the humanitarian sector so that the potential for this project to address broader systematic issues is not lost.

Humanitarian agencies are often the most visible partner in an emergency, but other partners can have significantly more impact on improving the sustainability of a response and these are primarily the governments of affected states and the donors supporting the response. The policies and priorities of donors and governments are often the key drivers of not only what interventions are possible but also how and when they are delivered which in turn impacts on the sustainability of the whole response!



WASH



**WASTE/
ENVIRONMENT**



**BUILT
ENVIRONMENT**



EDUCATION



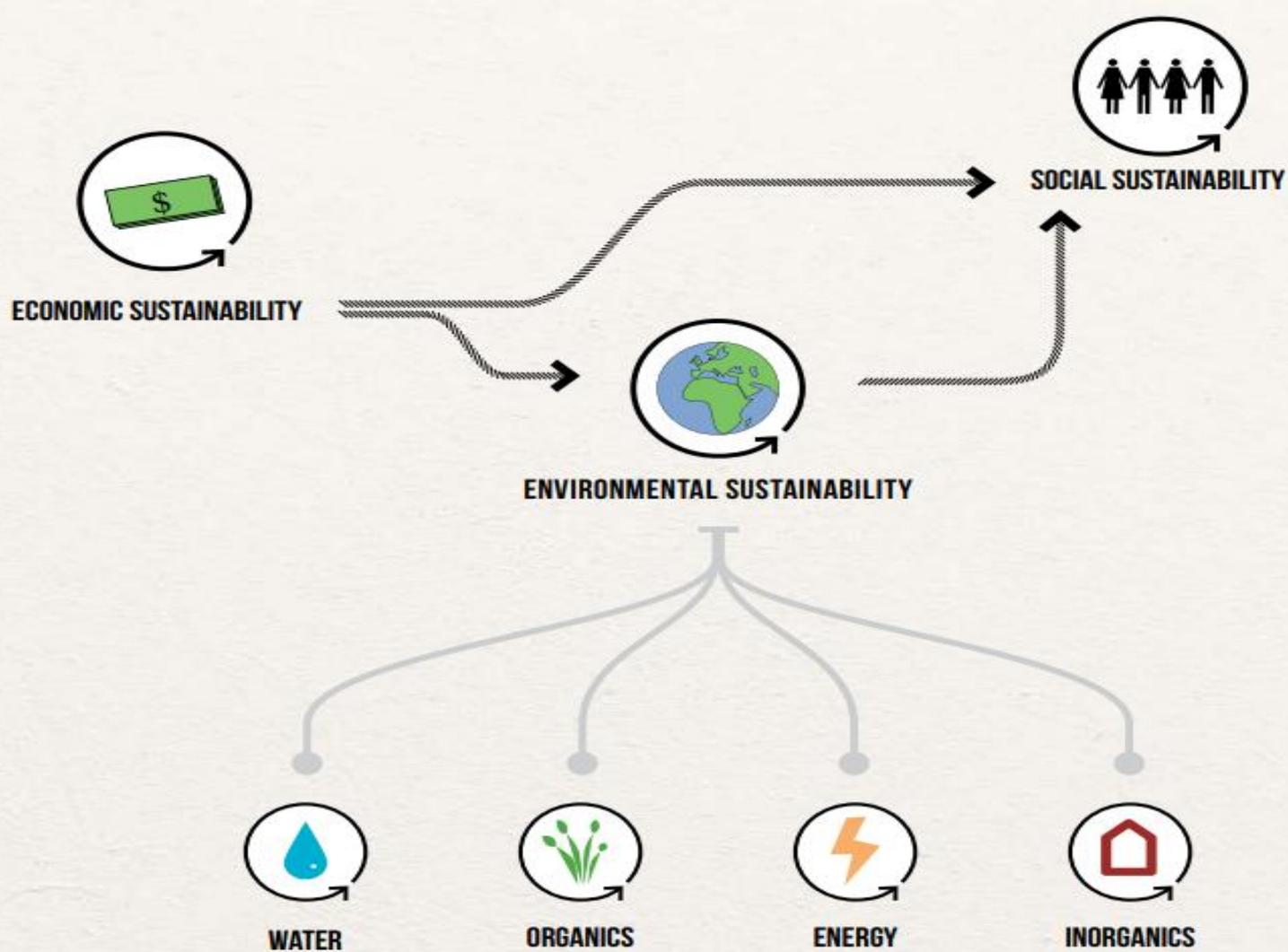
PROTECTION



**LIVELIHOODS/
PRODUCTION**



**HEALTH/
NUTRITION**



ACHIEVING SUSTAINABILITY IN A HUMANITARIAN SETTING

In humanitarian displacement settings the majority of resources are finite and very rarely are the systems and processes 'closed' which results in the production of waste. Waste as a concept can have varying meanings and does not necessarily denote something that is not useful, whilst dealing with any form of wastage has inherent costs.

A sustainable settlement could therefore be seen as one that focuses on efficiency, minimises wastage and makes use of all useful resources in as closed a cycle as possible. Efficiency and making full use of all resources available to a displaced community will therefore form the basis of this project.

Displacement settlements hold great variations in terms of size, climate and culture, and thus have different needs. The project therefore aims at creating a framework for interventions which take specific problems and needs into account.



WATER

Provision and reuse



ORGANICS

Turning waste into nutrients



ENERGY

Production and reduction



MATERIALS

Inorganics and building materials



WATER WASTE

- Loss of an increasingly valuable resource
- Stretches local water supplies presenting a source of conflict
- Using potable water for sanitation and other needs is costly
- Waste water acts as a pathway for disease presenting health hazards
- Wastewater treatment capacity is inadequate or nonexistent in most countries
- Waste water contaminates clean water sources and aquifers

ORGANIC WASTE

- Expensive methods are used for disposal, creating economic and environmental loss
- Mixing water and waste increases the complexity and costs of treatment and disposal
- Organic matter is a valuable resource
- The collection, transportation and disposal of waste is extremely costly
- Waste disposal capacity is inadequate or nonexistent in most countries
- Poorly treated or disposed of waste presents numerous health hazards

ENERGY WASTE

- Energy is expensive to produce and supply
- Most energy is from unsustainable sources
- Energy production requires large scale investment
- Tapping into local energy supplies presents a source of conflict
- Energy demands and needs are increasing and outstretch supply in many countries

MATERIAL WASTE

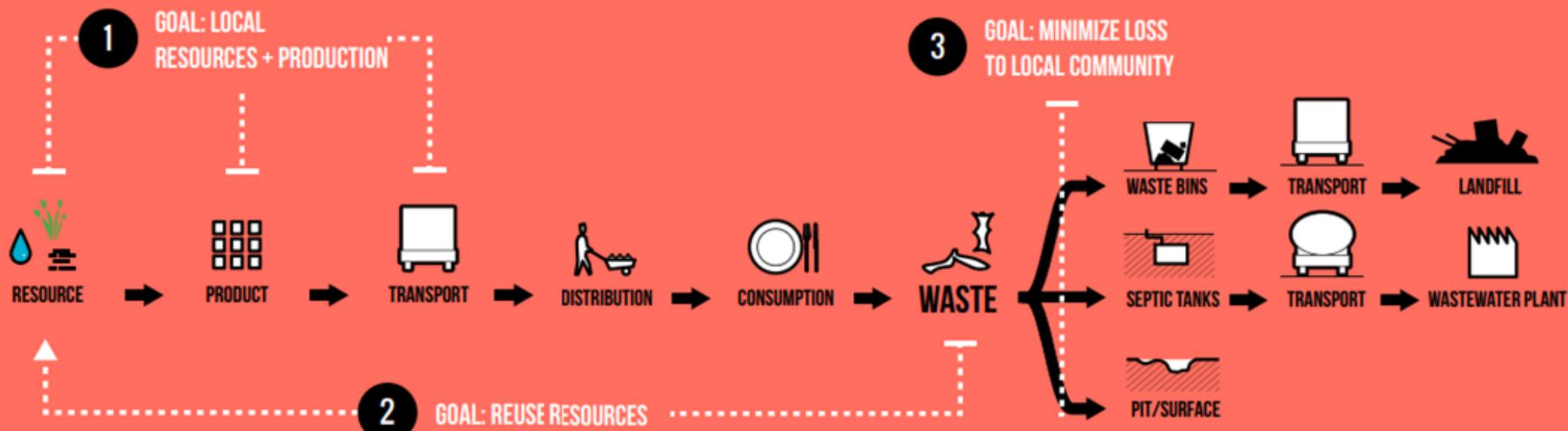
- Short term planning and focus results in increased costs due to:
- The frequent need to replace poor quality materials
- Repeat transportation of materials
- Inefficient and problematic structures (leakage, temperatures etc)
- Increased pollution from production, transportation and disposal
- Promotion of unsustainable practises

HOW CAN WE BREAK THE CYCLE OF LOSS?

In order to reduce losses and maximize local value, interventions should aim to improve existing resource flows.

Overall resource flow goals are to:

1. Use local resources and production
2. Reuse resources
3. Minimize loss to local community



ECONOMIC

INVESTMENT

How much does it cost initially?

COST EFFICIENCY

How high are running costs, and how long is payback time?

LIFESPAN

How long can the method or product last?

SOCIAL

SOCIAL CAPITAL

Does it create and sustain local opportunities?

EXPERTISE

How easy is it to construct, use and maintain?

SCALE

How many people can it serve?

ENVIRONMENTAL

VERSATILITY

Can the solution be applied in varied climates and cultures?

LOCAL VALUE

Does it improve the local environment?

REUSABILITY

Can it easily be reutilized, upcycled or repurposed?

PARAMETERS

Variables by which to evaluate quality and applicability of solutions among a multitude of available techniques

Each of the three sustainability areas are broken down into parameters which each intervention will be evaluated by, on a rudimentary scale from low to high. Many parameters are hard to measure, and vary greatly depending on circumstances. The "sustainability score wheel" is therefore to be considered a basic indicator for the expected viability of the intervention.

ECONOMIC
PARAMETERS



SOCIAL
PARAMETERS



ENVIRONMENTAL
PARAMETERS





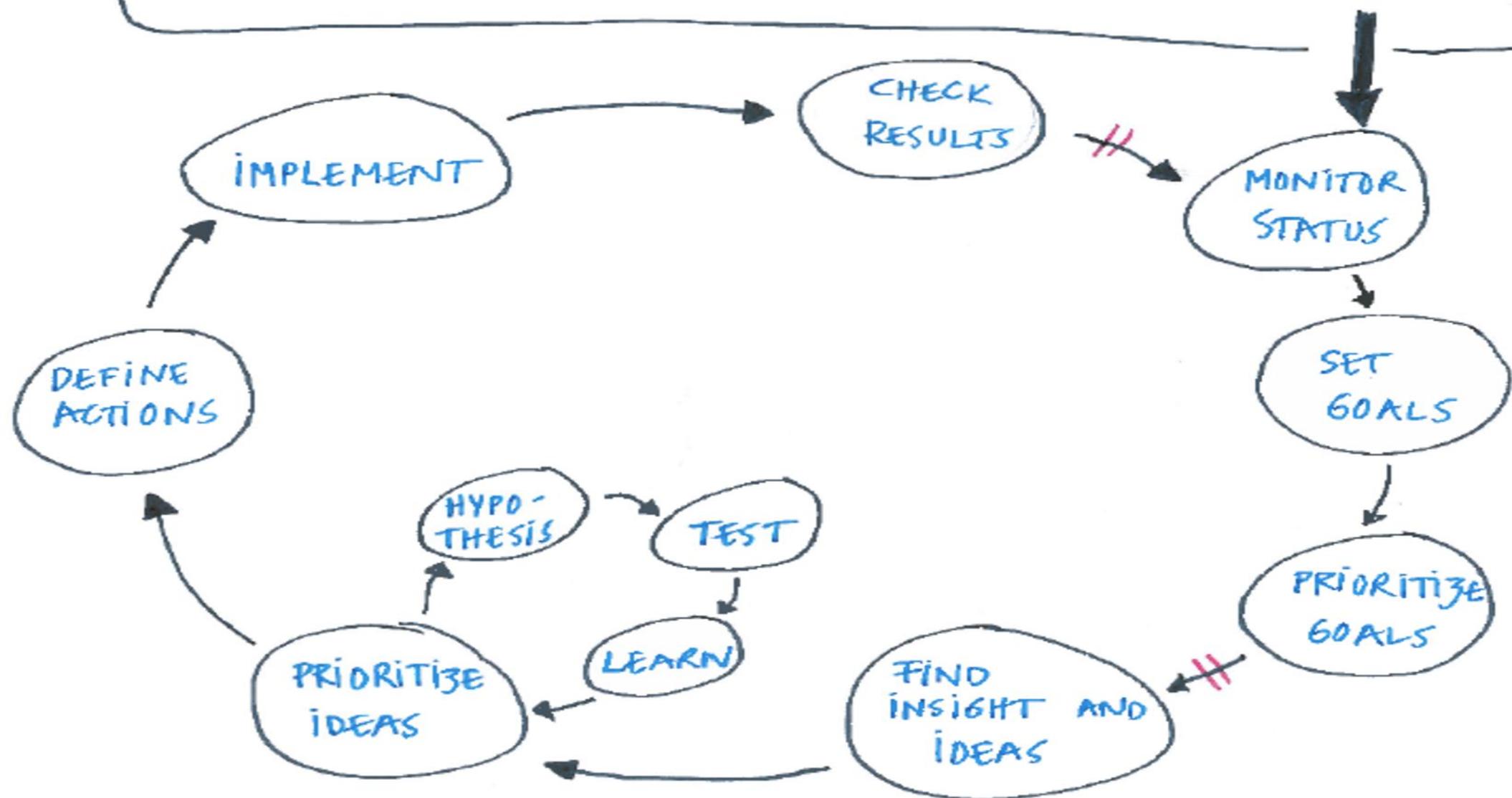
This working group will be increasingly relevant in the years to come and we expect the duration will be extended after the first 3 years. We will take stake annually related to the Cluster retreat and establish sub-targets as agreed within the WG meetings.

Activity	Year 1	Year 2	Year 3
Tip Sheets and advocacy			
Case studies			
Community focus info			
Participatory initiatives			
Capacity Development			
Sustainability in all operations			
Access to energy 75%			
Connectivity 75%			
Recourse management 75%			
Revise Strategy			

WHO ARE WE
CREATING VALUE FOR?

WHAT VALUE
ARE WE CREATING?

HOW DO WE KNOW
WE ARE CREATING VALUE?





From emergency, to transit and all the way home with future dreams

HUMANITARIAN ENERGY

Humanitarian Energy refers to power that is derived from the use of traditional and renewable sources. NRC focuses on electrical (lighting, operating machinery), thermal (heating/cooling, cooking) and chemical (batteries) forms.

Recent estimates show that refugees and internally displaced people (over 68.5 million individuals) spend over 2.1 billion USD on energy each year.⁴ The majority of this is spent on high-cost fuel sourced unsustainably and used inefficiently – mostly in the form of firewood.

Limited access to energy cuts across all sectors affecting human activities from lighting for schools and evening study through the health sector (chronic smoke-related conditions) to income generation via small and medium business enterprises. NRC believes that access to sustainable, affordable and healthy energy is a cornerstone to *creating homes and building communities*.

ENERGY AND NRC OPERATIONS:

Alternative to diesel generators, procurement of services (fee-per-service), renewables, off-grid, standalone and solar diesel-hybrid systems, energy efficiency (building and appliances) and feed-in systems.

ENERGY AT HOME:

Energy efficiency building upgrades (insulation / passive cooling), heating, lighting, lanterns, cooking fuel and alternatives, electrification, standalone solar home systems, construction technology, awareness raising.

ENERGY AND THE COMMUNITY:

Lighting and heating at schools, battery recharging for educational tablets, standalone power hubs, solar pumping, mini grids setup, street lighting.

ENERGY AND LIVELIHOODS / MARKETS:

Electricity business/trade (battery charging, phone charging, solar home system), skills training, business training, market-based cooking fuel solutions.



STRATEGIC RESPONSE AREA 3

Our outcome for this Strategic Response Area is: Displaced populations have access to clean, affordable and sustainable energy that will improve their living conditions, access to safe and reliable services (hospitals, schools, transport, etc.) and self-reliance (markets). NRC significantly reduces its carbon footprint by promoting a culture of energy efficiency; tracking and reporting on energy expenditure; and using modern and renewable energy sources to power field offices.

NRC's approach to Humanitarian Energy focuses on four areas:

GLOBAL SHELTER AND SETTLEMENTS CORE COMPETENCY STRATEGY

⁴ Moving Energy Initiative, Resources 2018