Energy and Environment Working Group

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Types of energy in refugee camps

1. **Energy for lighting**
   - Household lighting
   - Community/street lighting

2. **Energy for cooking**
   - Household fuel demand
   - Institutional fuel demand (school feeding and in-patient programs)

3. **Energy for basic services**
   - Energy for schools and health centers
   - Energy for water pumps
Energy for Lighting - Gambella

- **A total of:**
  >> 63,765 household solar lanterns distributed
  >> 906 solar street lights were installed
- **In 2017 (BLFR Program)**
  >> 12,735 solar lanterns distributed
  >> 306 street lights installed
- **The plan for 2018 (BLFR Program)**
  >> 7,560 solar lanterns and
  >> 294 street lights
- **Gaps:**
  >> **20,000** solar lanterns
  >> **4425** solar street lights
Energy for Lighting - Assosa

• There is no street lights installed in Assosa refugee camps
• 500 solar lanterns were distributed for refugees in Gure-Shembola
• Energy for lighting gaps:
  >> 15,000 solar lanterns
  >> 940 solar street lights
Challenges – Energy for lighting

- Limited budget
- Improper utilization of household solar lanterns
- Unmet needs forced some of families to sell the lanterns
- Theft and vandalism of solar street light batteries
- Absence of proper maintenance and management of solar street lights
Energy for Cooking

Gambella

The cooking energy situation
- All the refugee households are dependent on firewood
- 53,000 fuel saving stoves were distribute in 2015
- An alternative fuel assessment has been done by OSD
  >> Briquette can be produced from elephant grass
  >> Ethanol from Fincha sugar factory

The Challenges
- No single cooking fuel solution
- Lack of energy implementing partner
- Budget limitations
- High influx

Domestic fuel consumption by type per Camp
Plan for 2018 - Gambella

- Pilot briquette production from elephant grass
- Pilot biogas production
- Woodlot development for household energy
- Distribution of fuel saving stoves and training on fuel saving practices
- Explore the possibility of ethanol intervention
Energy for Cooking

Assosa

The cooking energy situation

• About 70% of HHs dependent on firewood
• Briquette production from grass piloted at 420 HHS
• 90,000 liters of kerosene fuel distributed
• 20,000 liters of Ethanol fuel distributed

Plan for 2018

• Scale up the ethanol provision to 31%
• Scale up the briquette production to 27%
• Connect Sherkole Camp communal kitchens with grid

Challenges

• Budget limitation
Energy for basic services

50% of health centers, schools and water pumps are targeted to be supplied by modern energy (solar PV)

**Gambella:**
- 2 boreholes in Pugnido Refugee Camp are solarized
- Solarize all schools in Gambella refugee camps for 2018

**Assosa:**
- Three boreholes are being solarized in Bambasi Refugee Camp
NRM and Environmental Rehabilitation Programme

Activities:

- Re-forestation of degraded forest lands
- Greening camps with various plant species
- Gully controls and rehabilitation of risk prone sites with biological and physical structures including gabion wall construction
- Awareness raising on environmental consequences
- Integration of livelihood activities with environmental programs
- Expansion of bio-sphere and protective areas
NRM and Environmental Rehabilitation Programme

Achievements:
• 530,000 trees planted in Gambella
• 350,000 trees planted in Assosa

Plan for 2018:
• Woodlot development
• Provision of alternative solutions

Challenges:
• Dependence on the natural forest
• Limited scale of intervention with alternative solutions
Thank you!