



SUSTAINABLE WATER &  
ENERGY SOLUTIONS TO  
ACHIEVE QUALITY  
EDUCATION , GENDER  
EQUALITY AND ECOSYSTEM  
HEALTH THROUGH  
STRATEGIC PARTNERSHIPS

# STIFTUNG SOLARENERGIE-SOLAR ENERGY FOUNDATION-ETHIOPIA

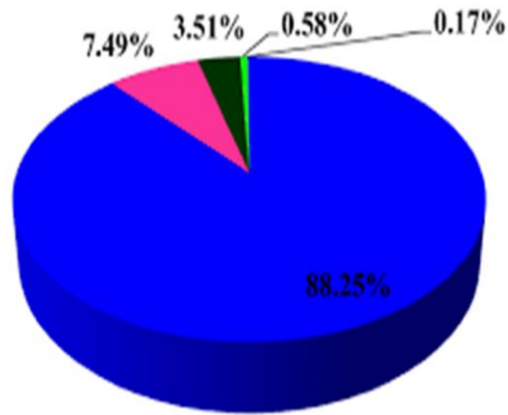
- Established in 2005 in Germany and 2007 in Ethiopia
- Mainly working on Solar technologies
- Disseminating Solar solutions for rural communities in a sustainable way
- Powering public off-grid institutions (Hospitals, Health Centers, Schools...)
- Providing trainings for Solar Technicians and interested individuals on Solar PV technology



# WATER AND ENERGY SOLUTIONS

## Water for Energy - Energy for Water

- Ethiopia's majority power generation is from hydropower
- It accounts 88.5%
- 4965.5MW installed capacity came from 14 different hydropower plants
- Grand Ethiopian Renaissance dam will increase the installed capacity by 5.12GW when it is done



■ Hydropower ■ Wind power ■ Diesel  
■ Biomass ■ Geothermal



**Grand Ethiopian Renaissance Dam (Ethiopia)**

# Solar PV Projects for Social impacts

- only about 14 MW solar PV have been used for telecom service, lighting, powering water pump in rural areas and for water heating in major cities
- Less than one million off-grid stand alone systems installed for rural set ups( **even more than 14Million house holds are in need of it**)
- 1000MW Solar PV installations planned by Government
- 100MW awarded to an International company
- The project not yet started because of Covid 19 and local political situations



# SOLAR POWER FOR COMMUNITY WATER SUPPLY

- Rural Communities suffered because of lack of water supply
- Long distance walk to fetch water
- Difficult for kids to go to school after fetching water



After Solar Water pumping installations

- possible for the kids to attend school, No more long distance walk and carry heavy water containers
- Mothers get more time for other home chores and other social activities and family time



# SOLAR POWER FOR HEALTH INSTITUTIONS



- Rural hospital fully powered by solar electricity
- Health centers mainly Maternity departments get solar power
- Now, Possible for them to save mothers and children life
- They can deliver proper services



Maji Hospital Solar power installation 33KWp

# SOLAR POWER FOR IRRIGATION

- Farmers used to farm only once a year
- With solar irrigation pump possible to harvest double
- They cover their need and possible to increase their income



# LIGHTING STUDENT HOME PROJECT

- No Activities after sunset in rural areas
- Schools are far from most off-grid areas
- Long distance walks to and from schools
- No chance for them to get time for study
- They can do more with such small solar lanterns
- School drop out reduced
- They become competitive with urban students





# Challenges

- Frequent policy changes
- Political instability
- Hard currency access to open LC for importers (
- Technologies are not locally sourced (**Local production should be encouraged**)
- No incentive for players





**THANK YOU**