

# Renewable Energy for Fisherfolks of Lake Victoria



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# Solar Lakes Initiative



## Global Nature Fund (GNF)

- International Foundation for Environment and Nature
- Coordinator of the international Living Lakes Network

## Aim of Solar Lakes:

Promotion of Renewable Energy in Lake Regions

## Solar Lakes Projects:

- Study „Climate Change and Lakes“
- Solar Ship - Network Germany
- Solar plant at Lake Tengis, Kazakhstan
- ECO-CAMPING
- Renewable Energy for Lake Victoria





# Renewable Energy for Fisherfolks of Lake Victoria

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- **Titel:** Renewable Energy for Fisherfolks of Lake Victoria
- **Time:** 18 Months - Begin: End of 2004
- **Supporters:**
  - GTZ – Gesellschaft für Technische Zusammenarbeit
  - German Ministry for Environment
  - Landesstiftung Baden Württemberg
- **Project Partners:**
  - Global Nature Fund (GNF)
  - OSIENALA – Friends of Lake Victoria
    - Established in 1992 - NGO based in Kenya
    - Since 2002 Member in Living Lakes Network



# Renewable and Energy Efficient Technology for Fisher Folks

- Solar lamps for night fishing of Omena - Lake Victoria Sardine
- Water purification
- Solar fish cooling
- Energy efficient kilns for fish smoking
- Hand operated briquetting machines



# Project Area

- **Lake Victoria, Uganda, Tanzania, Kenya**
  - Project area – Fisher Communities in Kenya
    - Kagoro Beach and Kinda Beach in Gwasssi location-Suba District
    - Luanda Kotieno-South Uyoma- Bondo District
    - Nyagina Beach –Rusinga island Suba District



# Background

## Energy Situation:

- 98% of rural population without access to power grid
- Deforestation - siltation
- High interest in renewable energies



# Project Aim

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- **Improve environmental, economic and social conditions in local communities through promoting of solar and energy efficient technology**





# Night Fishing at Lake Victoria

- Omena = Lake Victoria Sardine (one of three commercial fishes)
- 5000 boats in Kenya using 5 kerosene pressure lamps per boat
- Kerosene lamp consumption 1.5 litre per night



# Solar Lamps for Fishing

## Aim

Replacing kerosene lamps with solar lamps for night fishing of Lake Victoria Sardine

## Technology

- Over head D.C Lamps with reflector (7-10 Watts)
- Batteries 7 AH
- PV Panels (50 – 100 Watts)



# Training

- **Training Course for 100 fishermen**
  - Operation and Maintenance of Solar Systems
  - OSIENALA Research and Development Centre



# Financing

- **Micro-Finance System – Beach Bank**
  - Regular Savings and Loans – Beach Clerks
  - Currently 1600 Customers



# Local Awareness Campaign

- **Radio Lake Victoria**
  - Operated by OSIENALA
  - 3.5 Mio listeners
  - Independent – non-profit
  - Broadcast in local Luo language



# Lessons learned

- Extremely high interest of fishermen
- Careful testing of solar lamp systems
- Integrated approach needed
- Ownership



# Outlook

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- **Introduction of Solar Lamp System at Madu Gaga Lake, Sri Lanka, in 2006**
- **Solar Lakes Conference at Lake Constance in Sept. 2006**
- **GNF – web pages:**
  - [www.globalnature.org](http://www.globalnature.org)
  - [www.livinglakes.org](http://www.livinglakes.org)

