

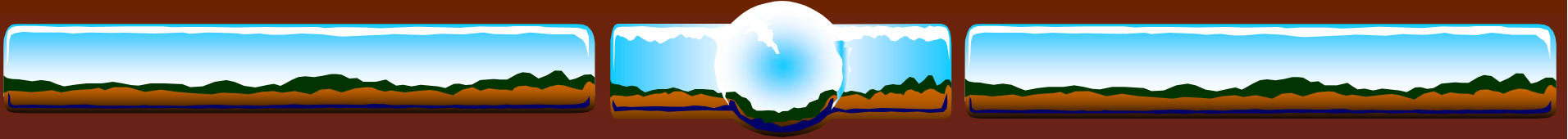
# **PACE - UGANDA**

**PACE - Public Private Partnerships for Access to  
Community Electricity:  
Ethiopia, Nepal, Sri Lanka and Uganda**

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**Konserve Consult Ltd, Kampala, Uganda**

**London, 11 Dember 2003**



# ABOUT UGANDA

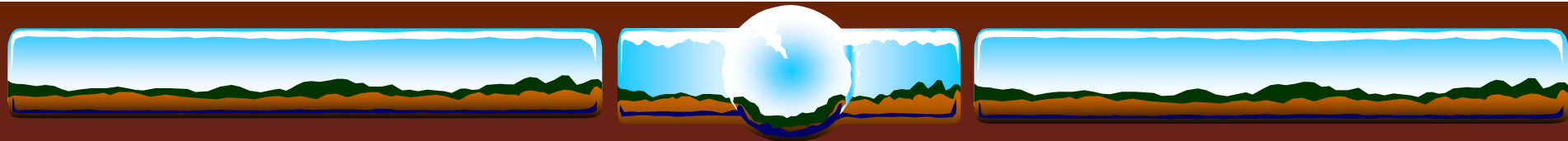
Political: Divided into four Regions and 51 Districts

Population: 25 million (Highest in Density in East Africa)  
80% Rural based

PER CAPITA GDP: US\$330

More than 50% Considered to live below the Poverty Line.

Contribution to GDP: Agricultural 41% Manufacturing 8%



# ENERGY SECTOR

Electricity Sub-sector: 1% of Total Energy Consumed

Generation Capacity: 270MW (Peak Demand Deficit 10MW)

% National Electrification.

1% access in Rural Areas (80% of Population)!

Main Source of Energy Consumption: Wood-fuel 93%



# RESOURCES

## ❖ Tremendous Hydroelectric Potential

Micro Hydro Estimated Capacity (MW)		
Site	River	
Arua	Anyau	0.3
Heissesero	Bunyonyi	0.3
Kitumba	Nyakabuguka	0.2
Mpanga	Mpanga	0.4
Nyakabale	Nyakabale	0.1
Moyo	Ataki	0.2
Kisiizi	Kisiizi	0.2



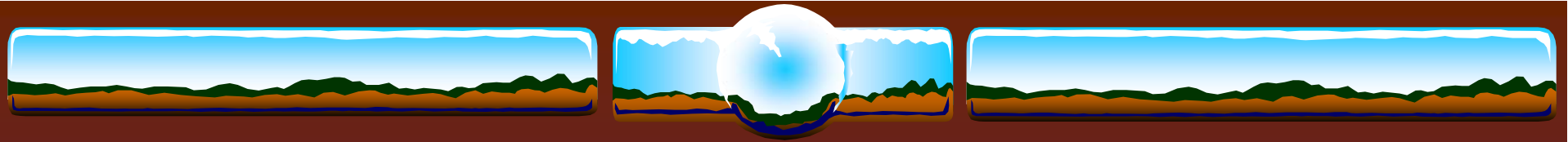
## Hydro Potential (Cont'd)

### Small Hydro Potential (MW)

Site	River	
Lake Bunyonyi	Bunyonyi	1.0
Nsongezi	Kagera	2.0
Paidha A	Nyagak	1.0
Paidha B	Nyagak	2.0
Ishasha A	Ishasha	2.4
(Washa) B	Ishasha	3.6
Nyamabuye A	Kaku	1.5
Nyamabuye B	Kaku	0.7
Maziga Gorge	Maziba	0.5
Kaka	Ruimi	1.5
Mbarara	Muzizi	0.7
Sogahi A	Sogahi	2.7
Sogahi B	Sogahi	3.3

### Medium Hydro Potential (MW)

Site	River	
Muzizi	Muzizi	10
Bogoye	Mubuku	7.5
NengoBridge	Ntungu	12.0



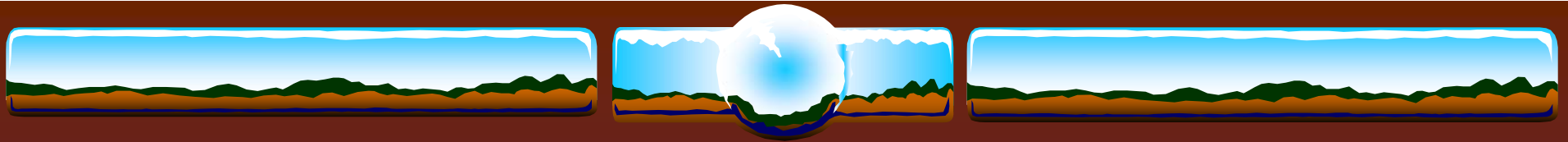
# Trends in the Electricity Sector

- ❖ 1999, Electricity Act
  - ❖ Preparation for Privatisation of Sector
  - ❖ Opening up sector to Foreign Direct Investment
  - ❖ Monopoly removed from Uganda Electricity Board (UEB)
  - ❖ UEB Fragmented into Limited Companies (Distribution, Generation and Transmission)
  - ❖ Establishment of Electricity Regulatory Authority



# Rural Electrification

- ❖ Pursued through Subsidizing Private Investment in Rural Network Expansion
  - ❖ Energy for Rural Transformation (ERT) Project – World Bank Supported
- ❖ ERT expected to inject US\$ 375m, 10 year Period
- ❖ ERT is a ground breaking approach in E African context
- ❖ Target: Increase Rural Access from 1% to 10% by 2012
- ❖ Depends heavily on Private Sector engagement

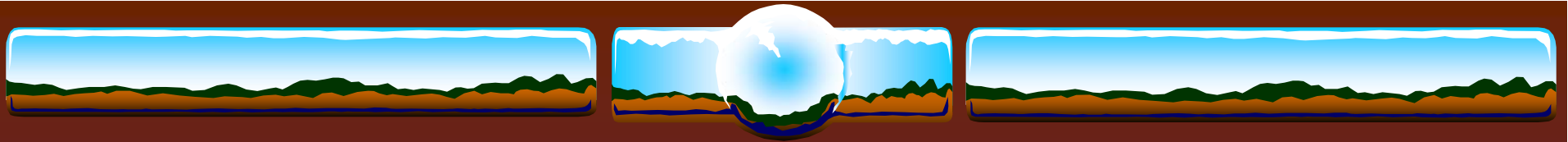


# ERT Operational Secretariats

## 1. Business Uganda Development (BUDS-ERT)

- ❖ Grants scheme for private Sector Firms
- ❖ Advisory Support in Business Development
- ❖ Objective: Develop private sector capacities for *starting* and *operating* rural electrification related businesses and promote efficient productive uses of electricity & traditional fuels in rural areas.



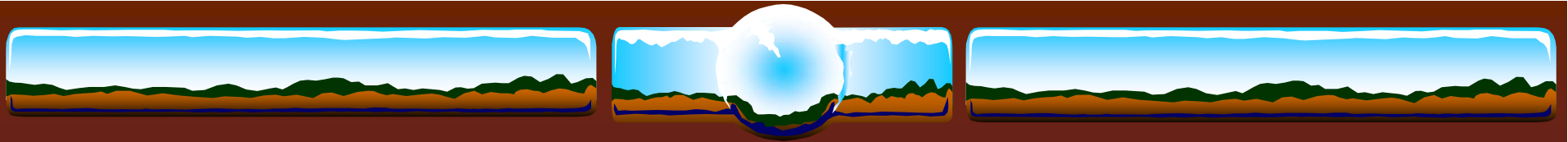


# ERT Operational Secretariats

## 1. (Cont'd) BUDS-ERT

### Target Areas of Business

- Independent networks
- Extension of the main grid
- Solar energy
- Wind energy
- Biogas
- Energy efficiency improvements
- Traditional fuels
- Telecentre activities
- Rural telephony services



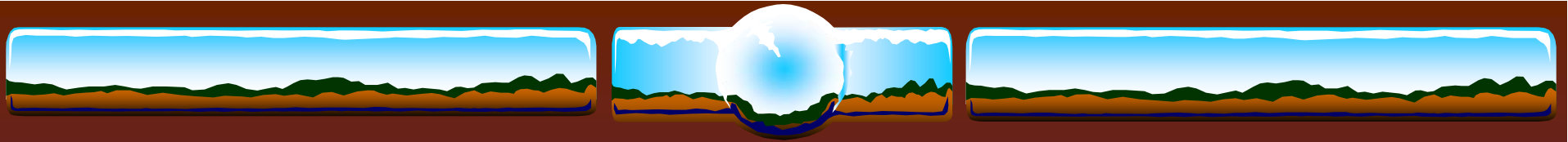
# ERT Operational Secretariats

## 2. Rural Electrification Agency (REA)

Agency setup as a result of the need for fulfillment of Electricity Act 1999 Obligations.

Minister Responsible for Energy Obligated to:

- Develop Rural Electrification Strategy and Plan;
- Establish Rural Electrification Fund (REF); and
- Create special incentives for investment in rural electrification



# ERT Operational Secretariats

## 2. (Cont'd) REA

Minister established the REF by Statutory Instrument in 2002

- REF is channel for extending “Smart Subsidies”
- Statutory Instrument established institutional mechanism for management of REA
- REA started functioning in July 2003

# Lessons Learned from PACE

❖ 3 projects assessed:

Community  
finance

UNDP Small  
Grant

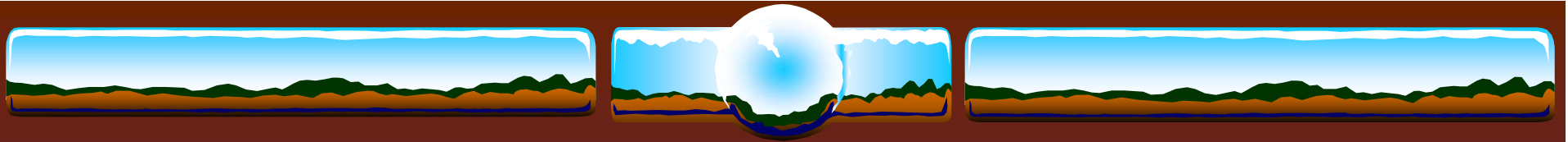
Mix, with  
ERT  
subsidy

A) Diesel Genset  
Magale Hospital,  
37kW (hydro?)

B) Wind/solar battery  
charging: Bufumira Islands,  
2kW

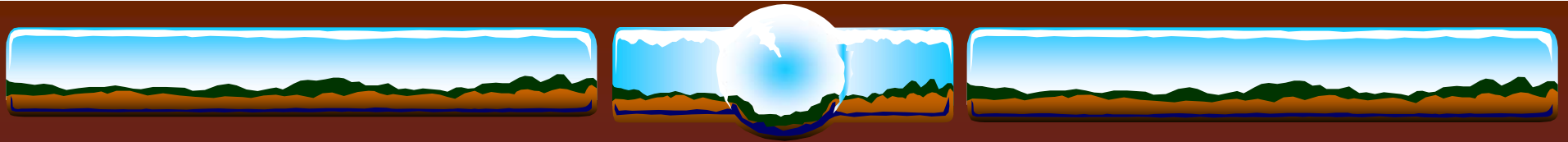
C) Micro-hydro  
Kisiizi Hospital  
Expand: from 60 to 300kW





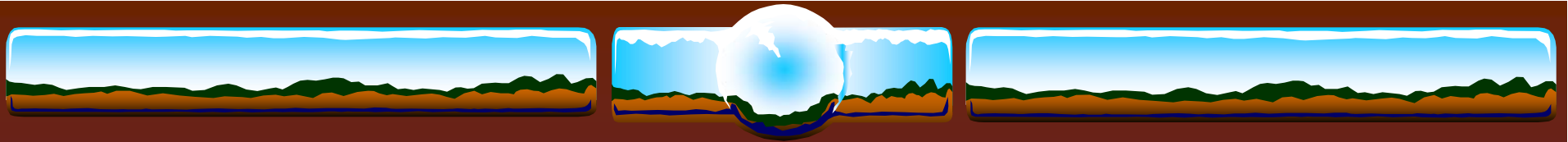
## Example: Kisiizi Micro Hydro - Partners

- ❖ Kisiizi Hospital- **Owners**
- ❖ The Church of Uganda- North Kigezi Diocese
- ❖ The Hospital Staff (Part of the Community)
- ❖ Uganda Government (MEMD)- **Public**
- ❖ World Bank- **Donor**
- ❖ Global Environmental Facility (GEF) - **Donor**
- ❖ A Commercial Bank- **Private Sector**
- ❖ Kisiizi Residents- **Community**



## Kisiizi Hospital – Livelihood issues from Availability of Electricity (60KW)

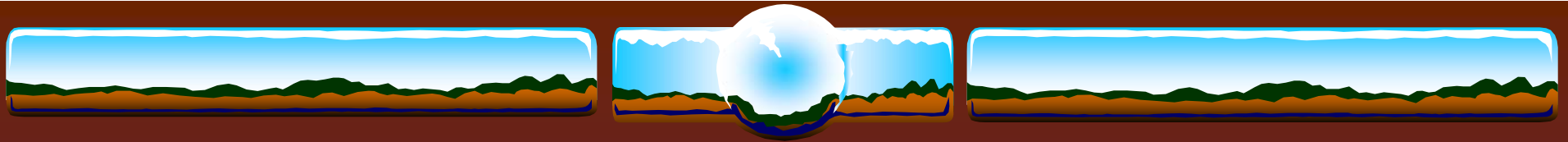
- Relatively Good Quality Medical Services at the Hospital.
- 60Kw not adequate for the demand therefore a need for Increased Production
- Hospital able to use excess electricity productively – Maize grinding mill, Welding garage and a Carpentry shop.
- Importance of Good Financing Mechanisms for Increased Production of Electricity to have a direct benefit for the Community.
- General anxiety from the Community and a clear indication of the need for Electricity.



## Lessons Learned from PACE (cont)

Few working PPP projects so far in Uganda, BUT:

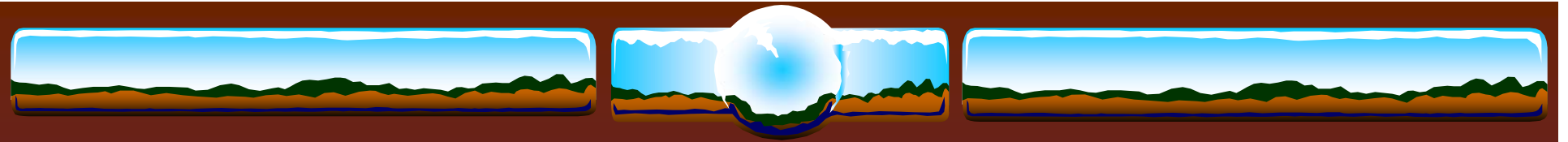
- ❖ Positive livelihood impacts are very clear, but economic development requires genuine cross-sector approach
- ❖ Poor sustainability effects are inevitable in absence of strong PPPs
- ❖ Local government is weak but has a significant role to play in planning and support – this needs to be addressed



## Lessons Learned from PACE (cont)

- ❖ Action plans on 2 projects, communities proactive
- ❖ Very positive exchange visits between Uganda and Nepal/Sri Lanka for ERT leaders
- ❖ Roles of Public Sector
  - ❖ Information Dissemination - Financing and Technical Support - Protect Beneficiaries
- ❖ Roles of Private Sector
  - ❖ Media of Delivery - Identify Opportunities - Competitiveness & efficient delivery of Services





Thank you