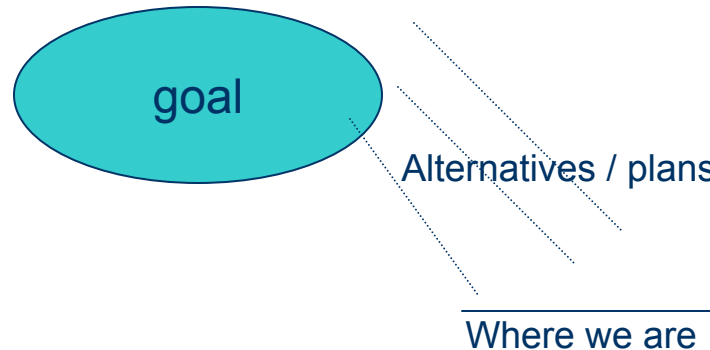


Decentralized Energy



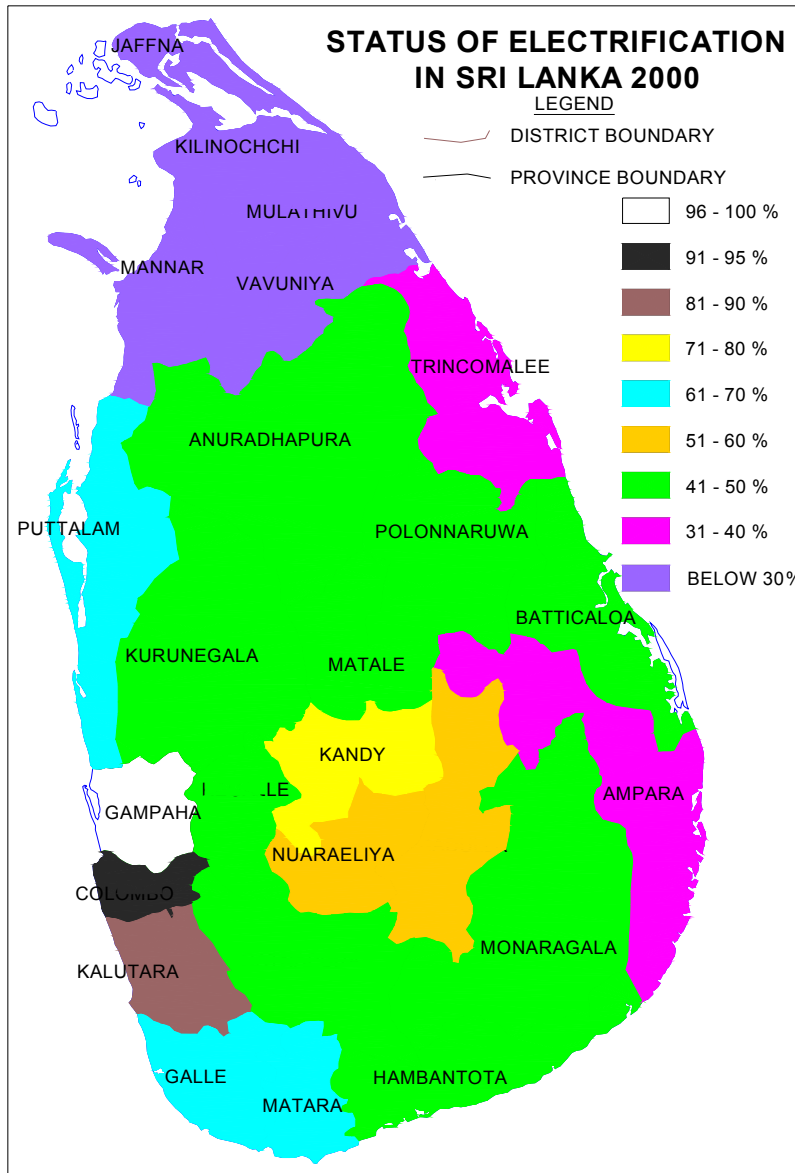
What we do ?

- What we want / Where we want to be (goal)
- Where we are
- Gap
- Alternatives
- Evaluation
- Selection & Implementation



Projects

- Goal
- Time
- Resources (Budget)



Power Generation (GWh)

- 1970 786
- 1980 1,669
- 1990 3,150
- 2000 6,713
- 2003 7,703
- 2006 9,389

Economics

Electricity (2006)

- Price Rs. 9.02
- Cost Rs. 11.03
- Purchased (pvt) Rs 12.19

Electricity Demand

Access to National Grid

78 %

Target for 2015

95 %

Escalation

8-10% per year

Mechanisms

- National policies & strategies
- Sustainable Energy Authority
- 10 year plan (2007-2016)
- 10% alternative sources by 2010

Some Options

Diesel

Coal

Hydro

Nuclear

Import (Cables / Wireless)

Problems

- Diesel – Cost / Environment
- Coal - Environment
- Hydro – No sites
- Nuclear – Risk / Technology
Dependency / Exchange

How about .,,

- Access & reach....?
- Optimum use...?
- Optimum benefits to the nation....?

Monthly average use

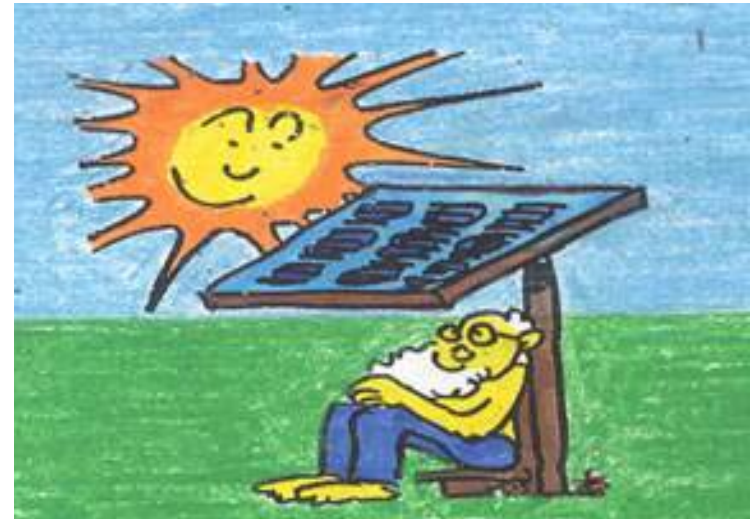
- Biomass 76 kg
- LPG 4.7 kg
- Kerosene 9.5 l

(per rural household in Sri Lanka)

Renewable Energy

- Biomass
- Solar
- Hydro

SOLAR PV



There are about 120,000 Solar Home Systems

Renewable Energy

- Wind
- Waves, Tide
- Geo Thermal
- Hybrids

Why Renewable Energy ?

Environment

Accessibility

Controlability

Foreign exchange (increasing oil prices)

Petroleum / coal reserve dwindling

Energy security / independence

Ownership & Management

- State (Govt)
- Private
- Community
- Individual

(Examples)

Energy & Distribution

- Centralised
- Decentralised
- Self

Centralised

Energy & Distribution

Individual

Power Generation & Consumption

Decentralised

Energy & Distribution

Examples

?

?

?

?

Why Decentralised ?

- Access
- Investment
- Resources
- Locality / topology / geography
- Types of applications

Why not ?

- Cost
- Quality Assurance & Improvements
- Services
- Monitoring (Expertise)
- Reliability

Community Managed

Decentralised
Energy

Key stake holders

- Consumers
- Consumer Mutual Benefit Groups
- Catalysts / Developers
- Manufacturer / Suppliers / Service Providers
- Investor
- Financier

Management

- Generation
- Distribution
- Equity collection
- Operations / preventive maintenance
- Maintenance fund contribution collections
- Monitoring & Control
 - All carried out by the consumer organisations

Essentials

The slide features a decorative layout on the left side. A light green shape is positioned at the top left, partially overlapping a white rounded rectangle. Below this, a thick dark blue horizontal bar spans across the width of the white area. The word "Essentials" is centered within the white area in a bold, dark teal font.

Technical Capacity Building

- Users - operations / maintenance
- Technicians – repairs
- Mechanics - fabrication
- Engineers – designs



Awareness building and confidence building
among credit / business institutions

Inter phasing technology with people

- Enhance competencies of people
- Get experts inputs
- Demonstrate
- Active involvement and participation
- Training
- Assure quality
- Establish financing and marketing services

Overall approach

- Pro poor people focused approach for enabling environment
- Main framework consists of
 - Technology
 - Policy
 - Finance
 - Community participation

Sustainable Technology for poor

- R & D focused from people's perspective
- Communities involve in
 - identify resources
 - design
 - construction
- Communities invest
 - labour
 - locally available material
 - cash

And

- Governance / social system
- Policies
- Awareness & Training
- Investments
- Technology / information
- Responsibility

And, and, and & and.,

Benefit to communities, citizens &

**FUTURE
GENERATION**