

The Renewable Energy Asia 2011 comprising the FAO Sustainable
Bio-energy Symposium and the 2nd Bio-energy Regional Policy
Dialogue

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Renewable Energy in Cambodia

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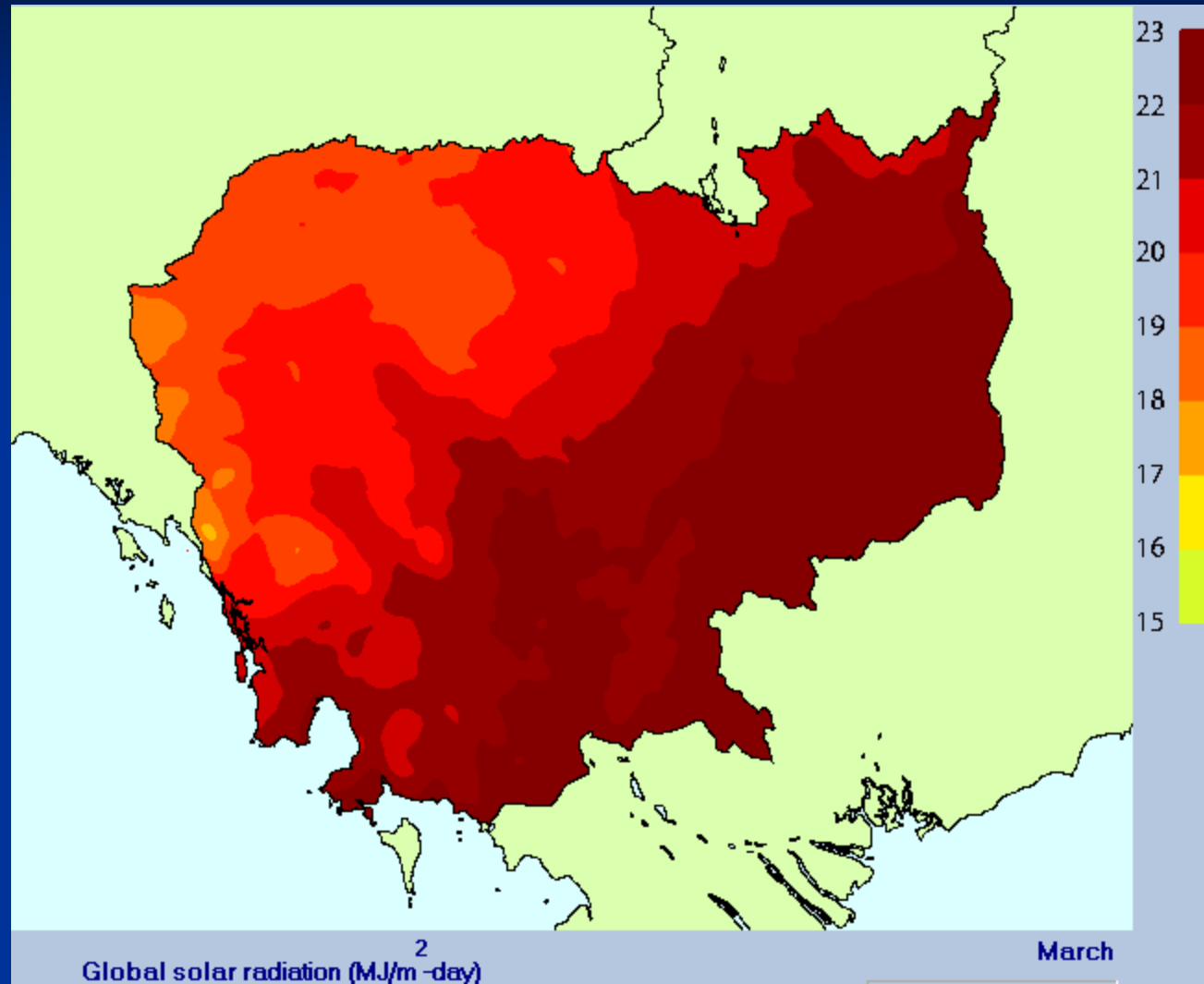
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1. POTENTIAL RENEWABLE ENERGY RESOURCES

Solar Energy:

- Average 5kWh/day
- Average sunshine duration of 6-9 h/day



1. POTENTIAL RENEWABLE ENERGY RESOURCES

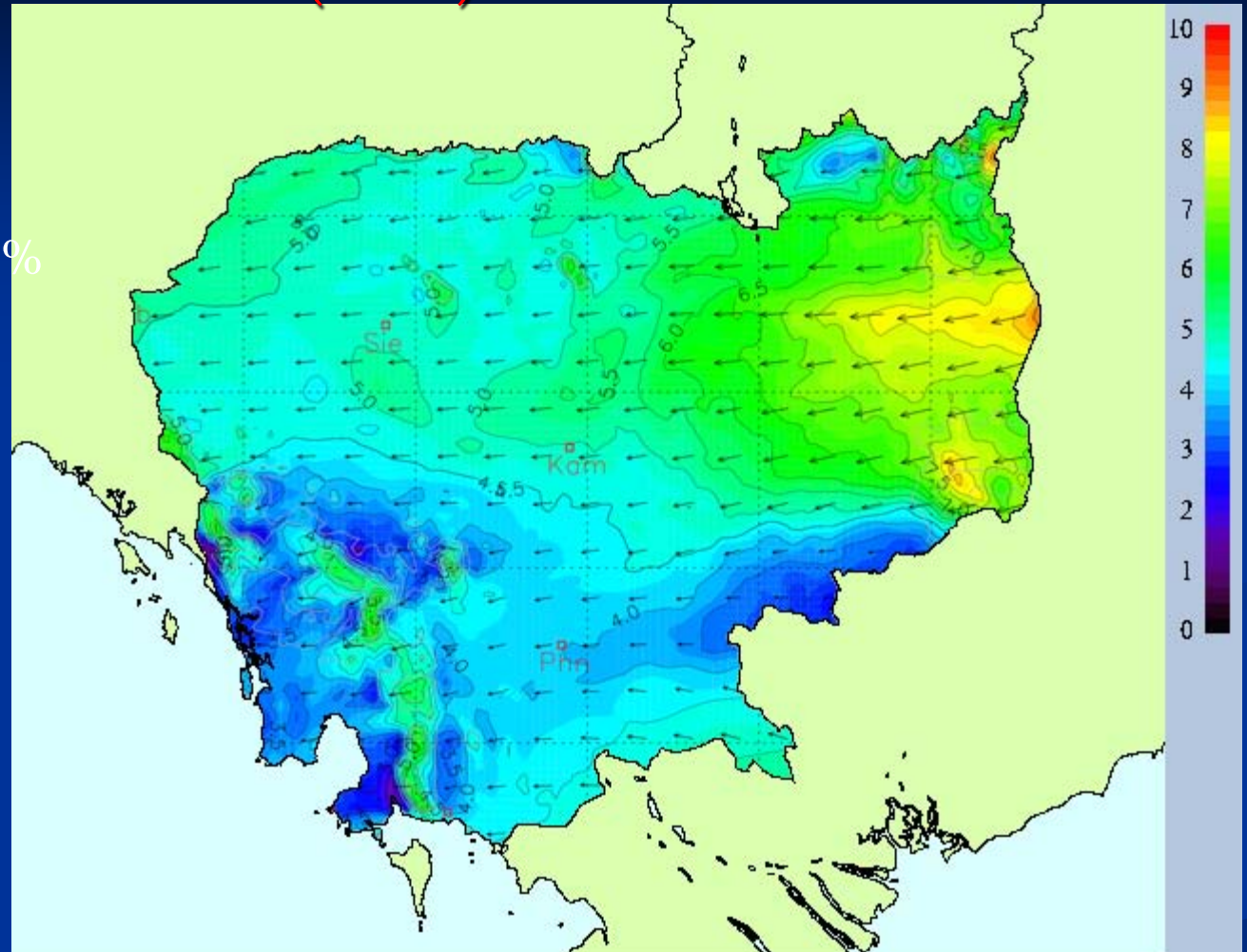
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Wind Energy:

Ground level 100m

Wind speed 5 m/s

The total area around 5%

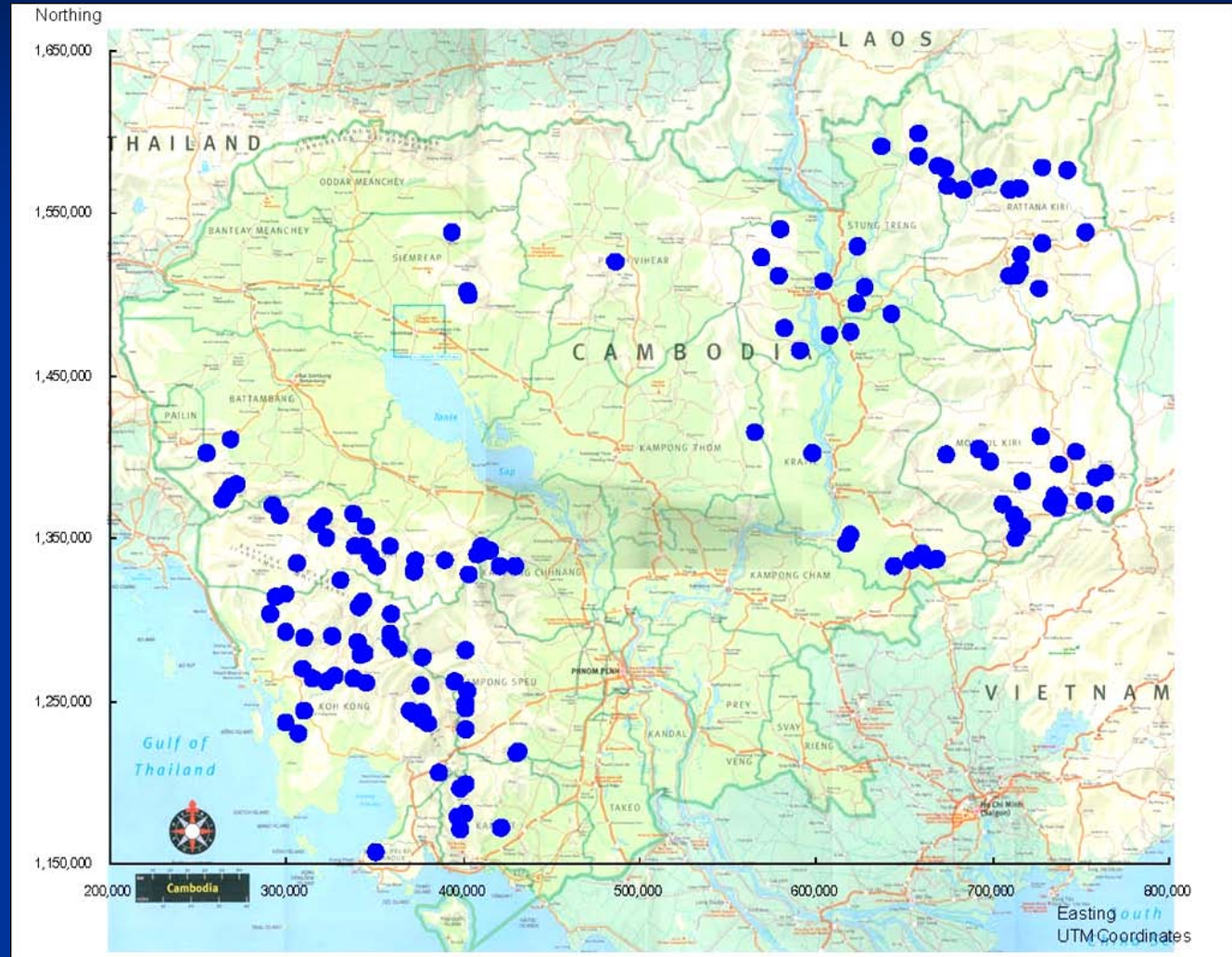


1. POTENTIAL RENEWABLE ENERGY RESOURCES

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Hydro:

Total 10 GW
2.4 GW under
construction



Source: JICA Study Team

Location Map of MHP Sites Identified through Map Study

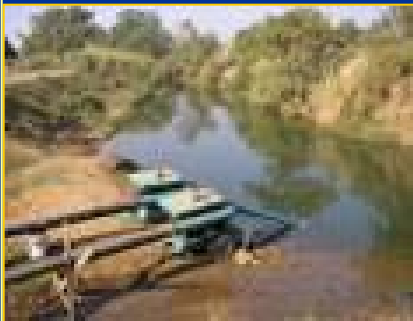
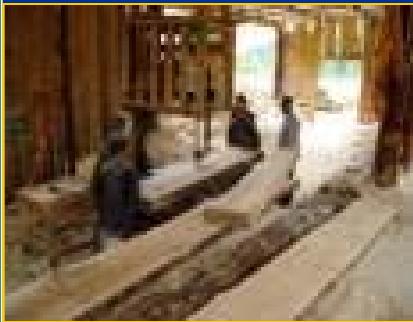
1. POTENTIAL RENEWABLE ENERGY RESOURCES

(cont.)

Biomass

Type	Quantity	Usage
Rubber Trees	250,000 ton/year	Boiler, Brick kilns, Households, ...
Rice Husk	1Million ton/year	Boiler, Brick kilns, Gasifier 3970k W/20 rice mills, for IPP 9.1MW .
Baggasse	100,000 ton/year	40,000 ha sugar cane for sugar factory
Palm Tree	4,000 ha	
Cashew nut shell	10,000 ton/year	
Jatropha	Around 1000ha	
Bio-ethanol	36,000 ton/year	Use cassava
Biogas	20,000 digestions (4-12m3)	7,000 digestions
Municipal waste	More than 1000 ton/day	In Phnom Penh, 1.3million m3 landfill gas
Etc.	-	-

2. Framework Goals and Targets



Goal

- Reduce poverty level
- Improve living standard
- Foster rural economic development

Effects of RE

Targets of Rural Electrification Sector

- (1) 100% village electrification by 2020
- (2) 70% household electrification with grid-quality electricity by 2030

3. National Policy on Rural Electrification by Renewable Energy

- 1) Endeavor to provide access to reliable, safe electricity services, with insignificant impact on the environment and at an affordable price for rural communities,
- 2) Provide effective legal, regulatory frameworks and various to a encouragements and train the private sector to participate in providing electricity services by renewable energy in the rural areas;
- 3) Act as a market enabler, through various incentives, for enabling equity in access to reliable and safe electricity services, with insignificant impact on the environment, at an affordable price for the rural communities;

3. National Policy on Rural Electrification by Renewable Energy (cont.)

- 4) Encourage the efficient generation, transmission and distribution of electricity using the renewable energy technologies, through tariffs, which are in conformity with the Electricity Authority of Cambodia (EAC)' s regulations;
- 5) Promote electricity systems by renewable energy at least cost for rural communities, through research and pilot development, as part of RGC's portfolio on grid and off-grid technologies; and
- 6) Ensure adequate resources, appropriate institutional mechanisms and training to empower the poor involving in rural electrification to participate.

4. PROJECT IMPLEMENTATION



NEDO Project PV-Biogas with capacity 110kWp + Gen set 50kWx2

4. PROJECT IMPLEMENTATION



NEDO Project (Micro-hydro 21kWx2 + PV 108.7Wp) Toek Cha, Kg. Cham

Case Study: Anlong Tamey Village, Bannan District, Battambang Province



(*Leucaena leucocephala* trees) 25
kw

Biomass application in Cambodia



Rice Husk Gasification



**Thank you
for your attention**

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