Investing in Renewable energy

Small Scale Hydropower in Myanmar: facts & figures
### Myanmar Key Facts & Figures

<table>
<thead>
<tr>
<th>Key Facts</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>54,584,650¹</td>
</tr>
<tr>
<td>Area</td>
<td>676,578 km²</td>
</tr>
<tr>
<td>Climate</td>
<td>Tropical monsoon; cloudy, rainy, hot, humid summers (southwest monsoon, June to September); less cloudy, scant rainfall, mild temperatures, lower humidity during winter (northeast monsoon, December to April)¹</td>
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<tr>
<td>Topography</td>
<td>Central lowlands ringed by steep, rugged highlands</td>
</tr>
<tr>
<td>Rain pattern</td>
<td>Rainfall up to 5,080 mm in coastal areas and average 1,500 mm in central areas²</td>
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</tbody>
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ENERGY IN MYANMAR: MAIN FACTS AND FIGURES

Myanmar energy mix in 2007

- Biomass: 64%
- Crude oil: 13%
- Natural gas: 11%
- Hydroelectricity: 10%
- Coal: 2%

Figure 1 Electricity generation in Myanmar
Source: International Energy Agency
LACK OF ELECTRICITY: HYDROPOWER AS AN OPTION

- But only around 30% of population get access to electricity (ADB, 2011).
- Yet demand is growing year by year, reaching 4.4 billion KWh in 2011
- Rural and remote areas are strongly constrained by this lack of access to electricity
LACK OF ELECTRICITY: HYDROPOWER AS AN OPTION

Among other renewable energy solutions, Small scale hydropower is one of the options to consider to address those challenges in a sustainable way.

Definition of Small Scale Hydropower:

Small hydro is the development of hydroelectric power on a scale serving a small community or industrial plant. The definition of a small hydro project varies but a generating capacity of up to 10 megawatts (MW) is generally accepted as the upper limit of what can be termed small hydro.

Small hydro can be further subdivided into:
- **mini hydro**, usually defined as less than 1,000 kW, and
- **micro hydro** which is less than 100 kW. Micro hydro is usually the application of hydroelectric power sized for smaller communities, single families or small enterprise.

In contrast many hydroelectric projects are of enormous size. For instance, the TaSang Dam on the Salween River, is expected to reach 7,100 megawatts
LACK OF ELECTRICITY: HYDROPOWER AS AN OPTION

Assets of Small scale hydropower in Myanmar:

⇒ Myanmar uses only 5% of its water resources.

⇒ It is estimated that the hydropower potential of just the four principal rivers is larger than 100 GW, of which only 1,781 MW are currently developed.

⇒ In 2010, a total of 19 hydropower projects (413.8 MW capacity) were under construction.

⇒ BUT: Large scale hydropower is expected to continue to be developed as a main power source.
SMALL SCALE HYDROPOWER IN MYANMAR: MAIN FACTS AND FIGURES

Main identified constraints:

⇒ Secured resources for financing projects
⇒ Not a proper legal framework for hydropower
⇒ Need for technical capacity
⇒ Bad image from large scale hydropower
Thank you!