



Thematic Session - Hydropower



Introductions to the thematic session

Guest Speakers:

- Mario Eduardo Batsana, FUNAE “Electrificação da Comunidade de Majaua”, Mozambique;
- Chandirekera Sarah Mutubuki-Makuyana, Practical Action, “Catalysing Modern Energy Service Delivery to Marginal Communities in Southern Africa, Malawi Mozambique, Zimbabwe”.

Moderators:

- Ms. Cristina Traini, (*DG Development Cooperation, Energy Unit*)
- Mrs Annegrete Lausten (*Danish Energy Management*)

Rapporteur:

- João Arsénio, TESE - Associação para o Desenvolvimento



Discussion Topics

Technology

- How can we mitigate the risk of actual output not being comparable to anticipated, thereby reducing Internal Rate of Return?
- What are socio-economic and cultural dimensions that affect how the technology is adopted and managed? Some illustrative examples could be discussed.

Ownership

- What are the three most important things to remember during project design implementation and after completion to ensure ownership?
- How to ensure a high level of ownership of the project by beneficiaries and how will it likely be after the end of external support? What mechanisms can be used to enhance sustainability through maintenance?

Affordability and tariffs

- What are the pros and cons of various payment methods for use of energy from the point of view of both the supplier and the consumer? Examples for electricity: Pre-paid meters, monthly bills, fixed monthly amount, other?
- Can a connection and tariff system be devised to combine both « social » clients and more creditworthy clients while ensuring financial sustainability in the operation of the networks?

Incentives

- Can a project influence the creation of new businesses in productive activities as opposed to non-productive activities?
- How can we ensure that consumer demands do not exceed available capacity? How can we encourage responsible usage of energy once we have highlighted the incentives to connect?



Technology

How can we mitigate the risk of actual output not being comparable to anticipated, thereby reducing Internal Rate of Return?

- Pre-feasibility study should be strongly encouraged for the small and mini hidro projects, taking in consideration the data availability, seasonal river flow fluctuations, costs, duration (sometimes more than one year) and the possibility of other technologies integration
- There's a lot of pre-fesibility studies for different scenarios that could be useful for future projects preparation
- Big hidro scheme take less time to develop than a small and not enough time to monitor the technical specifications
- Permits and authorizations should be address with the country EU delegations before advancing



Ownership

- Small scale projects are easier to give the local communities, but medium and large scale, present some real challenges, like PPP ownership. Which ownership level are applied to medium and large projects, local, regional or national?
- The community or private ownership of the project (or some parts of it) should be addressed and studied
- Economical, physical and social ownership and responsibilities should be divided and very well identified
- Political interests and pressure is likely to happen sooner or later in the life time of the project and procedures to mitigate future problems should be considered
- Create conditions to bring educated people to rural areas through economical, social and cultural incentives to promote a more secure ownership and sustainability



Affordability and tariffs

- Communities that never had electric services before are more reluctant and resistant to new technologies implementation
- National/regional or neighbour communities tariffs, outsider communities/influences and local specific socio-cultural issues, lead to people unwillingness to pay for electric services
- In some projects connection rates are low due to poor target group or beneficiaries identification and socio-economical characterizations and cultural habits