

# A Fact Finding Study on Drinking Water Hydropower: Multiple Problem Simple Solution



A Project Awarded under Nepal Development  
Marketplace 2008



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# Drinking Water Hydropower: Multiple Problem Simple Solution

## 1. Implementation Status

**General Remarks:** The implementation status is being assessed against the original plan, data and indicators as mentioned in the contract agreement papers. However, PAF over the whole contract duration up to today regularly experienced internal monitoring problems from the PAF side. To fulfill this vacuum, I personally visited to Mukubung of Nagi-3 from (6-7)th January., 2010.



**Figure 1** Discharged water used after power generating and consumption for drinking

**Achievements and Findings:** Based on this monitoring visit, site observation, beneficiaries' interaction, we have found the following findings and achievements:

- Four generators, each was installed in four different project sites within Nagi VDC, Panchthar district
- Each power generator generates (800 watt of power) from running source of water used for stand taps that attached along with the main intake water pipes;
- Observed two out of four sites, both were functional and made operational;
- Such generated electricity uses for operating television and telephone and mobile charging despite of traditional lighting purpose;
- The discharged water again collects in a pond and use for fish farming generates side income;



- Such a collected water also being used for Kitchen and cardamom business purpose ;
- Conducted operation repair and maintenance trainings to beneficiaries;
- Completed meeting for social audit;

## Impacts

- Produce more power than proposed proposal after modifying the design of power generator;
- Two to four households from observed two projects are getting benefiting looks privately run project;



Figure 2 Application of electricity in Telephone operation



Figure 4 Application of electricity in TV and DVD operation

- Application of electricity is being used for multipurpose uses like TV operation , Telephone and mobile charging;
- Waste water collected in a pond and fish farming. So far now it is not used for commercial purpose only for house consuming purposes;
- Waste water is also being used for kitchen gardening too;
- Technology used for generating water can be replicated in other areas but need to be correction in social mobilization part;

## Drawbacks

- Weak in social mobilization to settle dispute regarding while distributing source of water, location of project sites, project implementation, selection of beneficiaries process;
- Lacks of monitoring from project implementing partner's side;
- With a sustainability point of view there has developed no mechanism for repair and maintenance; at present, beneficiaries are getting power with free of cost ,and hence felt lack of ownership;
- Lacks of transparency about project information and budgetary part;
- No hoarding board to display information about project and budget component;
- Less effective due to a few number of beneficiaries and waste of generated power despite of using for operating TV, telephone and mobile charging;
- Not practice of power users committees meeting;
- Existed still local dispute;
- The project location is not so appropriated due to extension of rural electrification which is being run in the neighboring village so question may arise with its sustainability;

## Recommendations for corrective Measures

- Must receive written commitments with deadline from the side of implementing partner organization in order to address the following issues:
  - Creation of repair and maintenance fund through social mobilization process;
  - Develop internal revenue generating mechanism by collecting money from those who use the power and such money can also be used as repair and maintenance fund;
  - Involve other potential beneficiaries through the process
  - 
  - to use this power to more and more neighboring potential beneficiaries ;
  - increase beneficiaries power users committees
- satisfy the following There must have c last installment
- Review the beneficiaries institutional setting;
- Post the hoarding board to display project information and budgetary part;
- Make functional users committee so that developing plan for repair and maintenance mechanism;
- Increase the number of beneficiaries to use optimum generated power;



Figure 3 Beneficiary's house in Mukubung, Nagi-3, Panchthar