

EXCHANGE: SHARING LEARNING ACROSS PROJECTS – OPERATING MICRO-HYDRO PLANTS (MHP) AS COMMERCIALY-VIABLE ENTERPRISES

PROJECT'S AIM: TO EMPOWER LOCAL MANAGEMENT COMMITTEES TO DEVELOP THEIR MHP INTO SUSTAINABLE AND PROFITABLE BUSINESSES

Location:

Nepal

Technology:

Micro-Hydro

Costs:

Total: € 44,000

WISONS financial support: € 44,000

Partners Involved:

Winrock International

(<https://winrock.org/>)

Renewable Energy for Rural Livelihood programme

(www.aepc.gov.np/rerl/public/)

Duration:

December 2017 – June 2018



Picture: WISONS of Sustainability

Micro-hydro power generation was already widespread in Nepal before the start of the project. Nevertheless, problems such as poor management, a lack of technical know-how and poor financial performance were preventing community micro-hydropower plants from having a lasting impact on the population's living standards.

CHALLENGE & EXCHANGE OBJECTIVE(S)

Many MHPs in Nepal fall short of their potential to make lasting impacts on people's livelihoods because they do not generate enough revenue to cover their operation and maintenance costs. Consequently, the MHPs close for indefinite periods for repairs and fail to provide a reliable electricity supply.

The objective of this exchange was to use knowledge-sharing and capacity-building to empower local management committees to transform their loss-making social enterprises

into sustainable and profitable businesses. By enhancing the managerial capacity and awareness of MHP managers, the aim was to ensure the sustainable commercial operation of this technology. To achieve this, a knowledge exchange platform was created for MFP managers to share best practice and overcome practical barriers to the commercial development and use of MHPs.

Furthermore, this project sought to contribute to government initiatives aimed at exploiting MHPs as commercial enterprises.



Picture: A flooded bazaar on the route to an MHP in heavy rain

PARTICIPANTS & TARGET GROUP(S)

In cooperation with the Nepalese Government's Alternative Energy Promotion Centre (AEPCC)/Renewable Energy for Rural Livelihood (RERL), Winrock International arranged for successful MHPs to share best practice with five financially and managerially weak MHPs in the Baglung and Gulmi districts of Nepal.

ACTIVITIES & PROJECT PHASES

The knowledge exchange activities were carried out in the following phases:

(1) A **baseline study** to identify the five MHPs to participate in the knowledge exchange activity.

(2) A **stakeholder survey** based on agreed key performance indicators to establish criteria for successful MHP operation.

(3) A series of **knowledge exchange and capacity-building workshops** focusing on key managerial aspects, each involving around 30 participants. Some of these workshops were:

- **Knowledge-Sharing between Micro-Hydropower Users Committee** (December 2017)

- **Capacity-Building on Accounting, Management and Business Models** (February 2018)

- **Training on Business Plan Development** (April 2018)

- **Training on Computer-Based Account Management** (May 2018)

(4) Ongoing **mentoring, relationship-building and monitoring** to encourage the adoption of knowledge gained from the workshops (June 2018).

(5) **National Sharing Workshop** involving participants representing the private sector, associations, financial institutions, NGOs, micro-hydro developers and development partners (June 2018).

(6) **Knowledge product development** through the creation of two success stories and a video documentary to showcase the best practices adopted by MHPs following the knowledge-sharing workshops.



Picture: Participants of the Empowering MHP Users Committee: Capacity-Building on Accounting, Management and Business Models training

RESULTS & IMPACTS

A number of impacts were identified during the project. First, there were **significant improvements** in the **management** of the five MHPs, leading to the provision of a **reliable power supply**. Furthermore, a tangible increase in **revenue generation** and profit: electricity sales grew by up to 40%.

There was also evidence of **greater satisfaction** among beneficiaries and **better ownership** by stakeholders.

As a result of the project, **additional households and enterprises became connected**, and there is an increase in **productive end uses**.

Finally, there are clear **community benefits**, such as streetlighting and the provision of excess electricity to poor households.



Picture: Office of Chachalghat MHP

LESSONS LEARNED

As improvement is a continuous process, there is huge potential for the Nepalese Government to work with development partners to improve the management of MHPs in order to increase the reliability of electricity provision and to secure the sustainability of these important assets.

Through this project it became evident that **knowledge exchange and networks are key to empowering local practitioners**. Moreover, working at community level has been shown to lead to sustained, high-impact results.

Nevertheless, in isolation, government subsidies to establish MHPs and provide

managerial/technical training do not ensure successful and sustainable operation.

It is relevant to bear in mind that local contexts can negatively influence a project's success. Challenges included heavy rainfall causing landslides and plant shutdowns; delays due to management committee members' involvement in local elections; variation in the educational level of managers; and political interference in the selection of staff.

Following the completion of this project, further efforts should focus on similar knowledge exchange programmes for the remaining 2,000 MHPs across Nepal.

Source: Final Report submitted to WISONS by Winrock International for Agriculture Development in December 2018.