

HPNET
HYDRO EMPOWERMENT NETWORK

THE ROLE OF INDIGENOUS KNOWLEDGE & GOVERNANCE TRADITIONS

CLIMATE RESILIENT SOLUTIONS TO HYDRO MINI-GRIDS

Global Symposium on
Sustainable Water and Energy Solutions

UNDESA Sustainable Water and Energy Solutions Network

Paraguay/Brazil
13-15 June 2022

OVERVIEW

HPNET's knowledge-to-impact approach

Social Enterprise for Energy, Ecological and Economic Development (SEED)

Community-Scale Hydro for Climate Resilience

Water-Energy-Food Nexus

Inclusive Approaches to Hydro Mini-Grids

Role of Indigenous & Women-Centric Approaches

HYDRO EMPOWERMENT NETWORK (HPNET)



KNOWLEDGE EXCHANGE

Evidence building tools for multi-actors
Capacity building events (online and in-person)
South-South and peer-to-peer exchange



STRATEGY ADVOCACY

Platform for local practitioner voices
Coalition-building for advocacy to impact
Advocacy products for thematic solutions

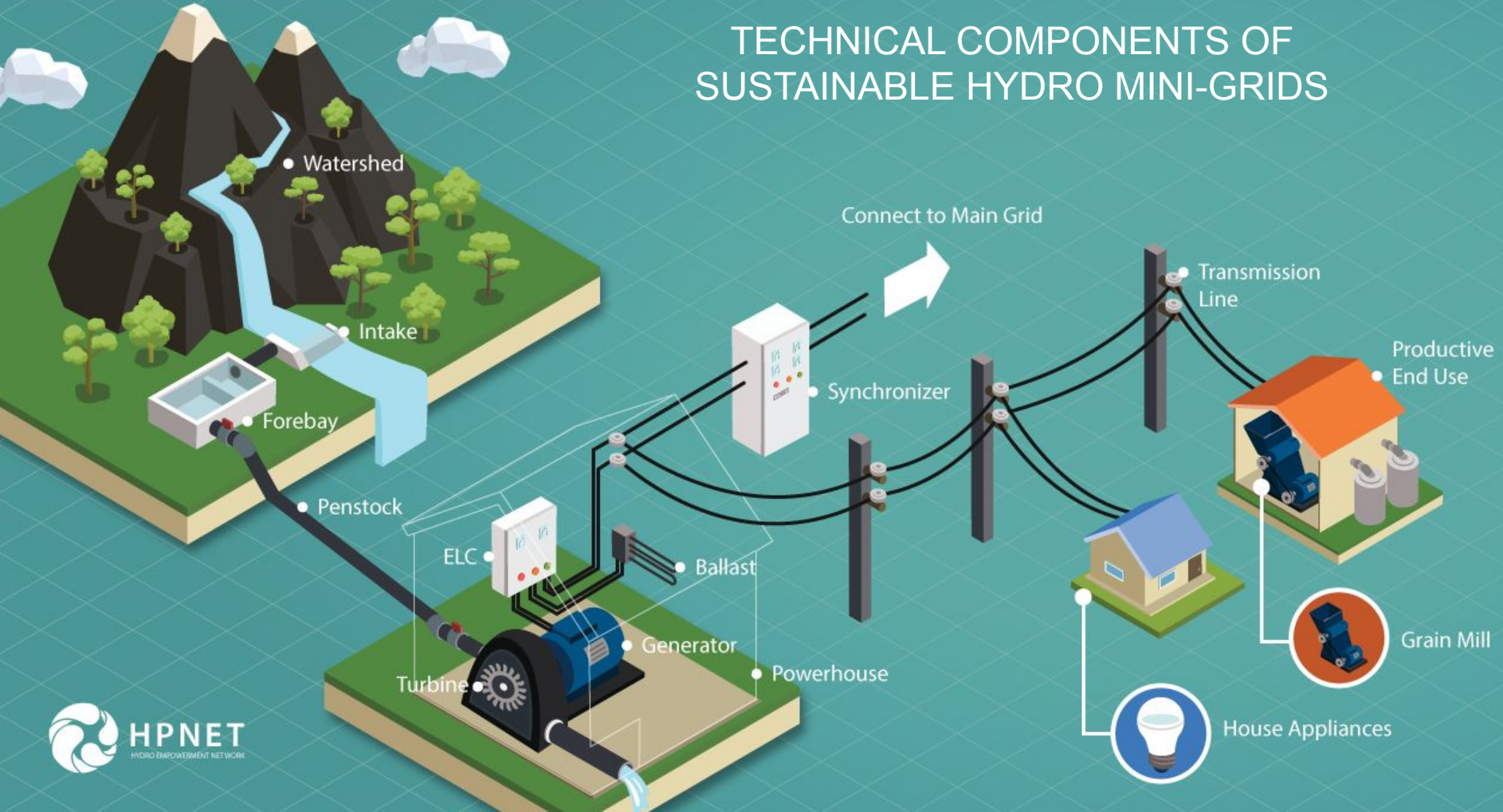


THEMATIC FOCUS AREAS

Technology and skills advancement
Socio-environmental sustainability
Enabling financing and policy for scalability

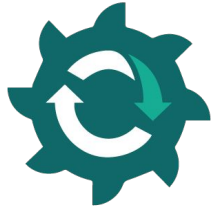


TECHNICAL COMPONENTS OF SUSTAINABLE HYDRO MINI-GRIDS



SEED

Social Enterprise for Energy,
Ecological and Economic Development



Hydro Mini-Grid
Sustainability

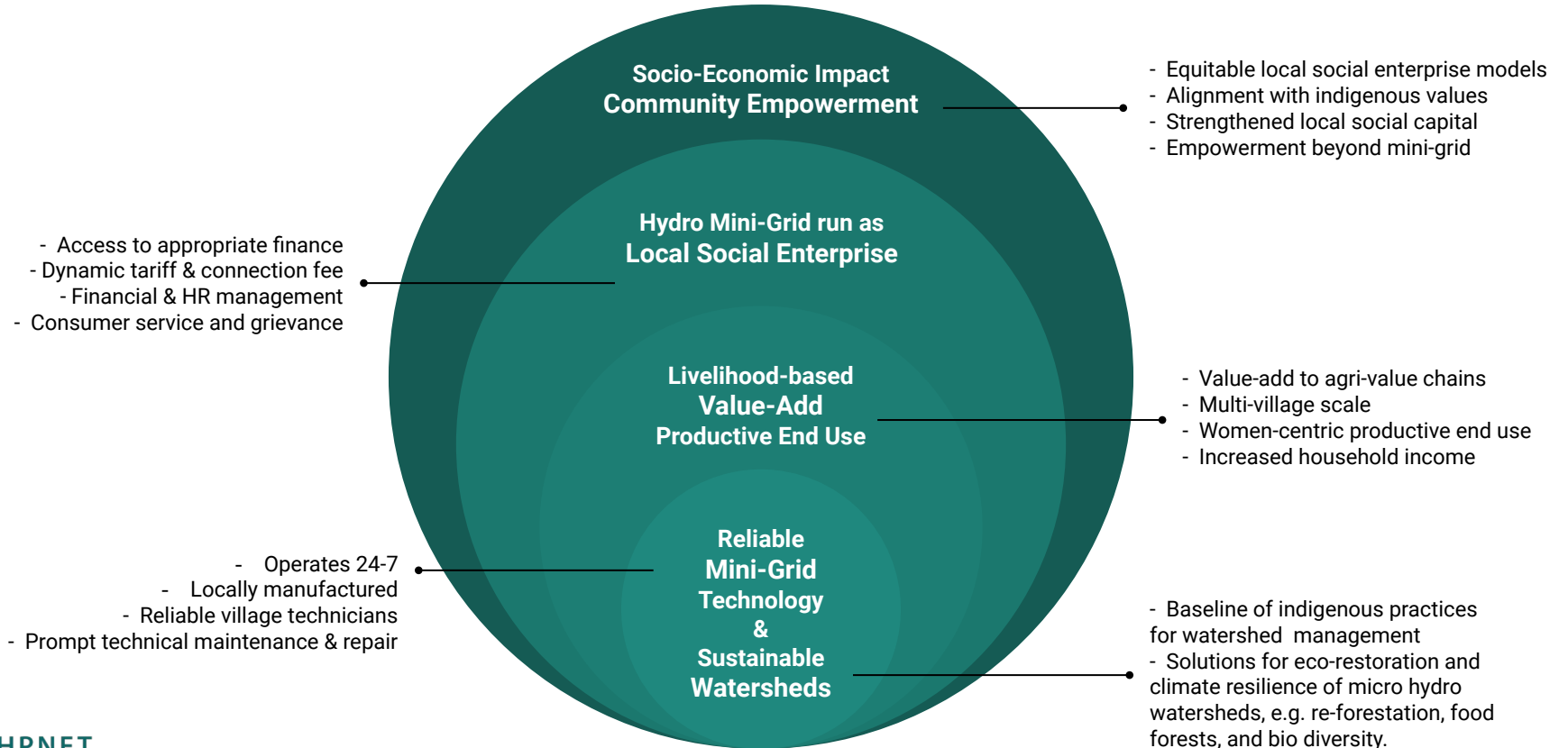


Socio-Economic Impact
of Hydro Mini-Grid



Empowerment
Beyond Kilowatts

CORE ELEMENTS OF SEEED



SEED ACCELERATOR: E-COURSES



FUNDAMENTALS OF COMMUNITY HYDRO

6-WEEKS: FEB 7 - MAR 18

FORMAT: ONLINE

REGISTRATIONS: 200

WOMEN: 15%

TOPICS:

- HYDRO ORIENTATION
- SOCIAL ENTERPRISE
- DEMAND ASSESSMENT
- SITE ASSESSMENT
- POWER OUTPUT



CLIMATE RESILIENT SOLUTIONS TO COMMUNITY HYDRO

1-WEEK: MAR 21 - 27

FORMAT: ONLINE & FIELD-BASED

REGISTRATION: STARTS SOON

WOMEN: 50% (FIELD-BASED)

TOPICS:

- CLIMATE RESILIENCE OF WATER-ENERGY-FORESTS
- LOCAL GOVERNANCE
- WATERSHED MANAGEMENT
- PHASES



AGRI-PROCESSING BENEFITS TO COMMUNITY HYDRO

4-DAYS: MAR 28 - 31

FORMAT: ONLINE & FIELD-BASED

REGISTRATION: STARTS SOON

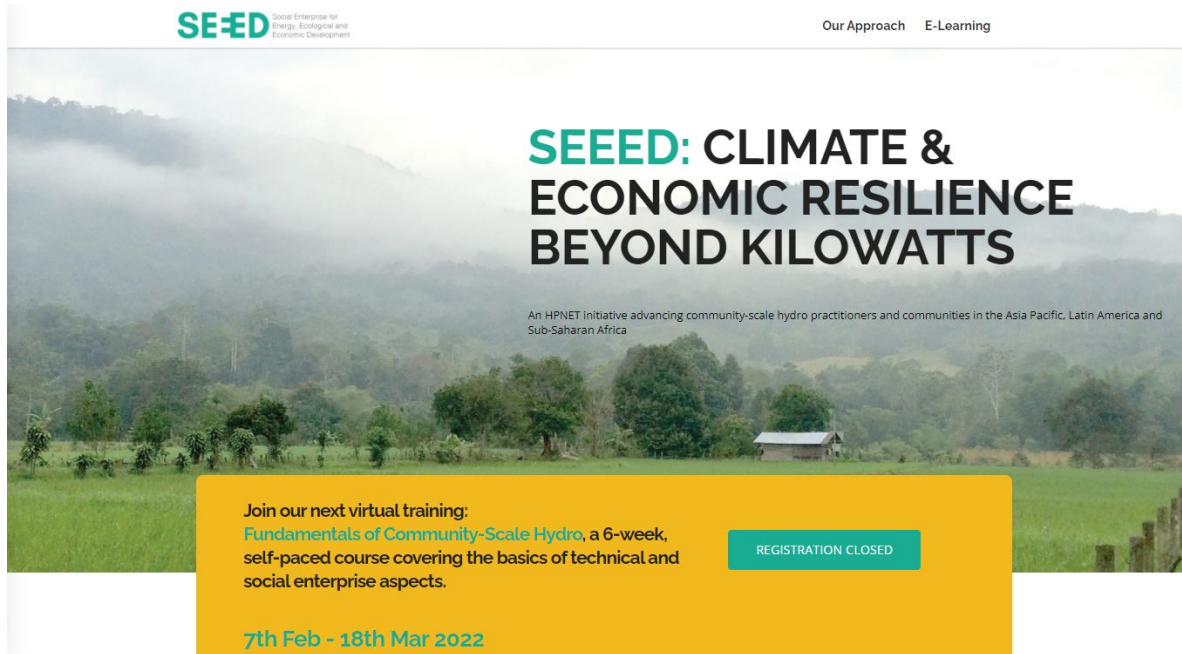
WOMEN: 50% (FIELD-BASED)

TOPICS:

- CLIMATE RESILIENCE OF WATER-ENERGY-FOOD
- SOCIAL ASPECTS
- FOOD FORESTS
- AGRI-PROCESSING

E-LEARNING PLATFORM

Learning Management System (LMS) at <https://seedlearning.org/>



SEED Social Enterprise for Energy, Ecological and Economic Development

Our Approach E-Learning

SEED: CLIMATE & ECONOMIC RESILIENCE BEYOND KILOWATTS

An HPNET Initiative advancing community-scale hydro practitioners and communities in the Asia Pacific, Latin America and Sub-Saharan Africa

Join our next virtual training:
Fundamentals of Community-Scale Hydro, a 6-week, self-paced course covering the basics of technical and social enterprise aspects.

REGISTRATION CLOSED

7th Feb - 18th Mar 2022



NEXUS OF

WATER

ENERGY

FOOD

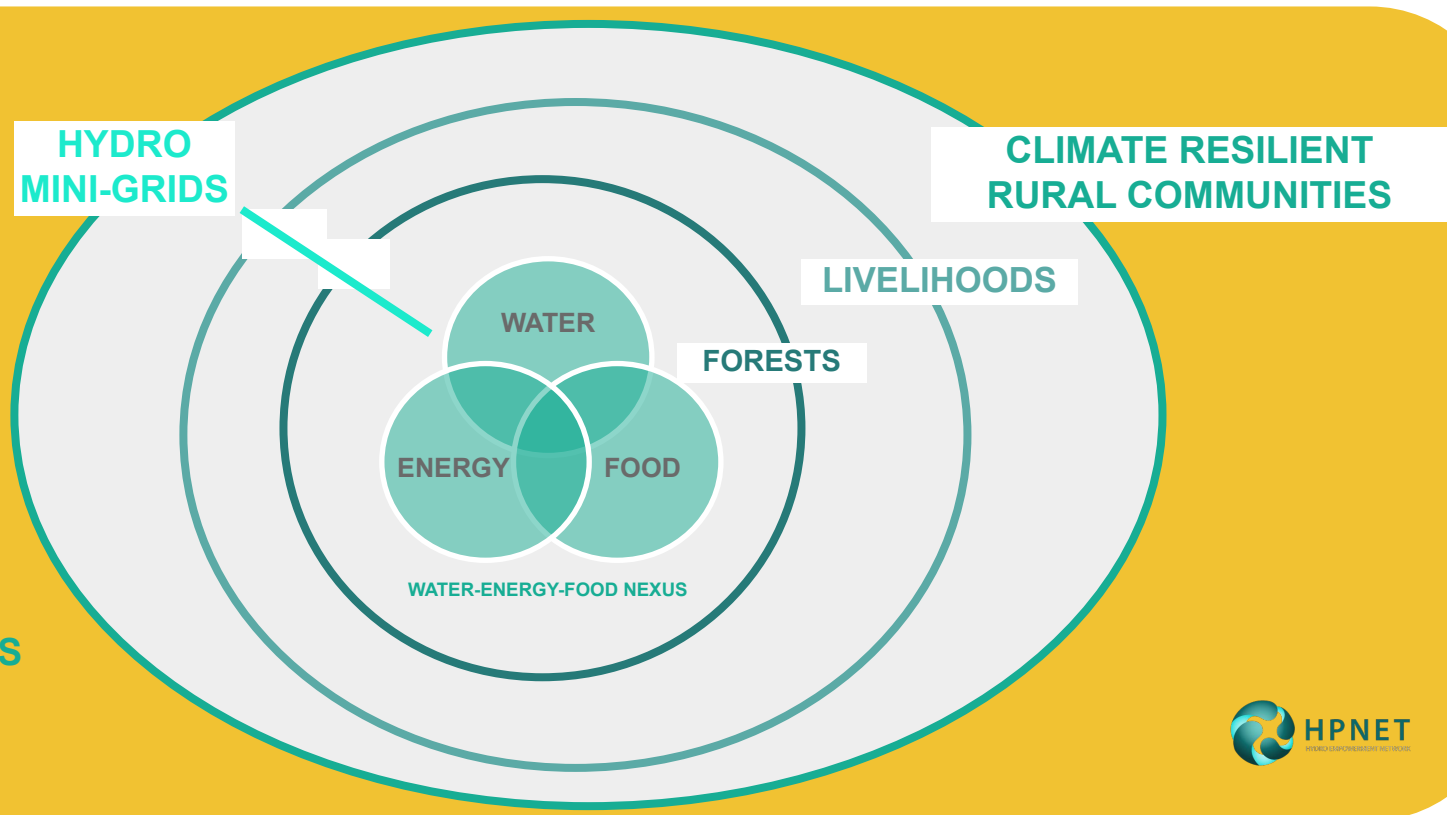
LIVELIHOODS

FORESTS

CLIMATE
RESILIENCE

Curugmuncar Micro Hydro Village, Pekalongan Regency, Central Java, Indonesia
Credit: Asosiasi Hidro Bandung

What is the role of watersheds in the forests-water-energy-food-livelihoods nexus?



ROLE OF
CLIMATE
RESILIENT
WATERSHEDS
OF HYDRO
MINI-GRIDS



Hydro mini-grid site in Visayas Region of the Philippines.
Credit: J. Angngalao

What is the role of indigenous knowledge and governance traditions?

in Cordillera Administrative Region, Philippines

Climate Resilient Solutions
to Hydro Mini-Grids



Lapat System in the Cordillera Administrative Region, Philippines

- “**Lapat system**” is one example of an indigenous governance mechanism which refers to the **customary law for environmental and natural resources** management in the Cordillera Administrative Region, Philippines.

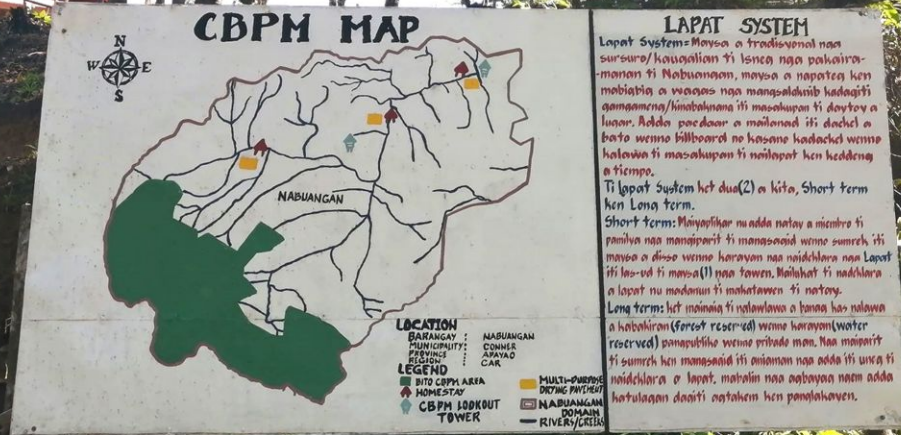
Lapat is strong practice of some indigenous tribal communities in the **Provinces of Abra, Apayao, and Kalinga.**

- The local term, “Lapat ” means to **“prohibit” or “regulate” the excessive use of natural resources**, that include the protection, management and preservation of the environment, particularly **forest, mineral ,wildlife, and water resources.** This is spearheaded by the council of elders and tribal leaders.

Ancestral Domain within Lapat

The **indigenous communities** see **forestland as sacred** because this is the major source of timber, rattan, nito, tiger grass, medicinal /ornamental plants, and wildlife habitat.

Lapat applied to **prohibit and regulate** the use of these natural resources that are communally owned by the tribe that has settled a given **ancestral domain** and are managed through **customary laws and traditions** passed on through generations.



Examples of Lapat Customary Law

- **Old timber** is only harvested for local household construction and furniture needs. **Logging** is strictly prohibited or well regulated.
- **Swidden farms** are supposedly not permitted to be established near watershed areas. **Neighboring residents** must **seek permission** from the council of elders and tribal leaders before **gathering resources** within the territorial jurisdiction of the locality.
- The tribal council of elders and leaders considers the use of **environmentally hazardous methods** in fishing and indiscriminate hunting as **heinous crimes**.



Barangay Gawaan, Kalinga, Province, Philippines
Credit: J. Angngalao

Lapat Sanctions

Any violation of these prescribed customary laws has appropriate **penalties or punishments** prescribed **by the council** of elders & leaders.

Indigenous Belief

The indigenous has also this belief that **forest is sacred and protected by the spirit**, and **excessive use of forest natural resources for one's own benefit that causes ecological destruction** will make one's family suffer because the **forest spirit is watching and can cast curses**.

The beliefs have remained strong and **contribute to sustainable watershed protection**.

Community rice harvest in Buaya, Kalinga, Province, Philippines
Credit: J. Angngalao



Construction of hydro mini-grid power canal in Apayao Province, Philippines
Credit: J. Anghalao

Women-centric Approach to Hydro Mini-Grid Development

Enable rural women to

- Provide more than just labor
- Govern implementation & management
- Become financial shareholders

Economic Benefits of Hydro Mini-grids for Women

- Alleviation of post harvest workload
- Increased farm production
- Poverty alleviation



Mechanically driven rice milling machine in Buneg, Apayao, Province
Credit: J. Angngalao



Kalinga Communities at Risk: Small, Medium, Large, and Mega Dams

Five mega dams in the pipeline for Balbalan Municipality for power evacuation:

- Balabalan **micro hydro** projects will **become defunct**
- **Ancestral land** will be taken away from communities and **submerged**
- Many Indigenous **communities will be displaced**
- **Methane emissions** from submerged forests

Equitable solution: Community-scale hydropower, owned by Indigenous communities



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For more information, visit us at:

www.hpnet.org