

BENEFIT SHARING AND SUSTAINABLE HYDROPOWER

Lessons from Nepal

June 27-28, 2016

ICIMOD, Lalitpur

PADMENDRA SHRESTHA
Research and Program Manager



Benefit sharing <> Sustainable hydropower

- **Benefit sharing: how can benefits derived from hydropower projects are shared with mountain communities in a fair and equitable manner?**

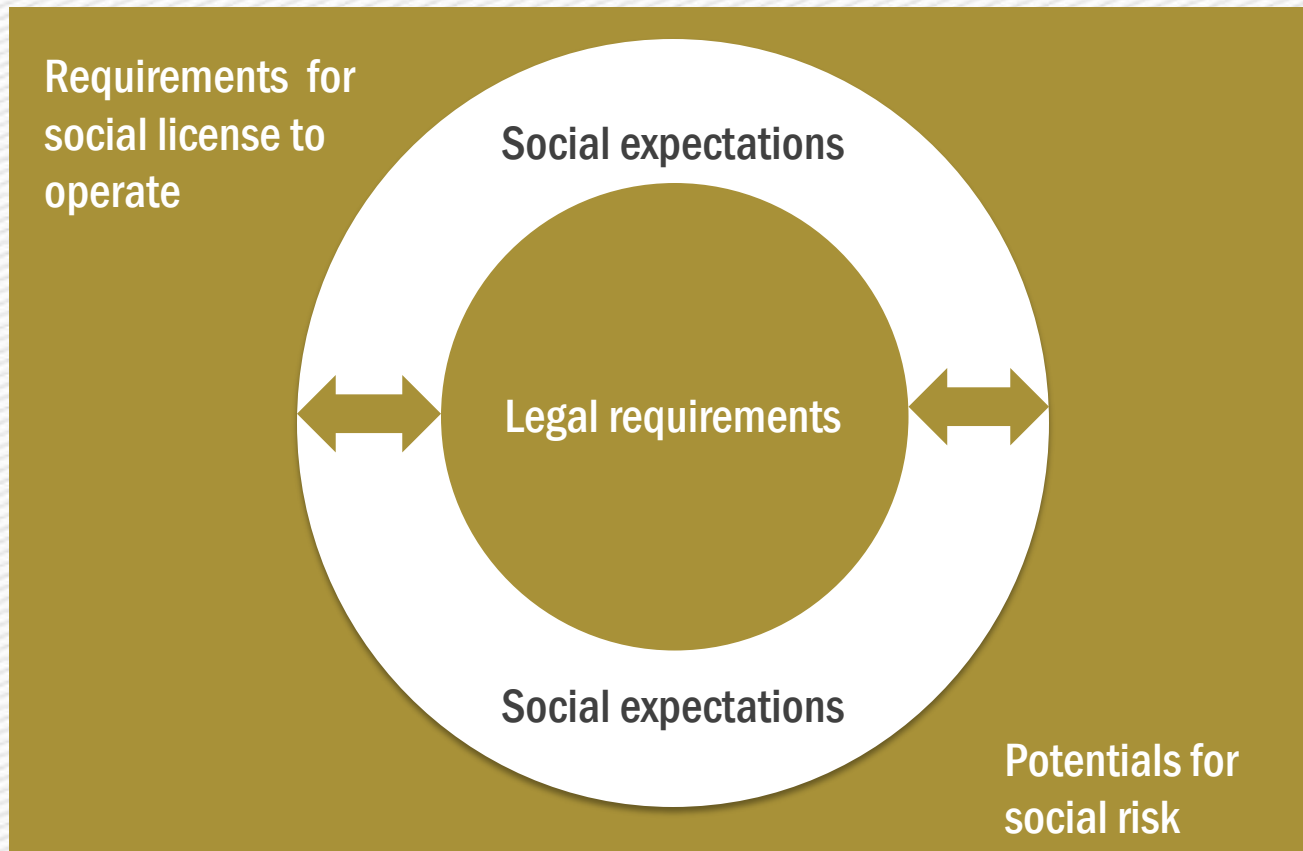
mountain people -negative externalities (socio-environmental), but do not derive commensurate



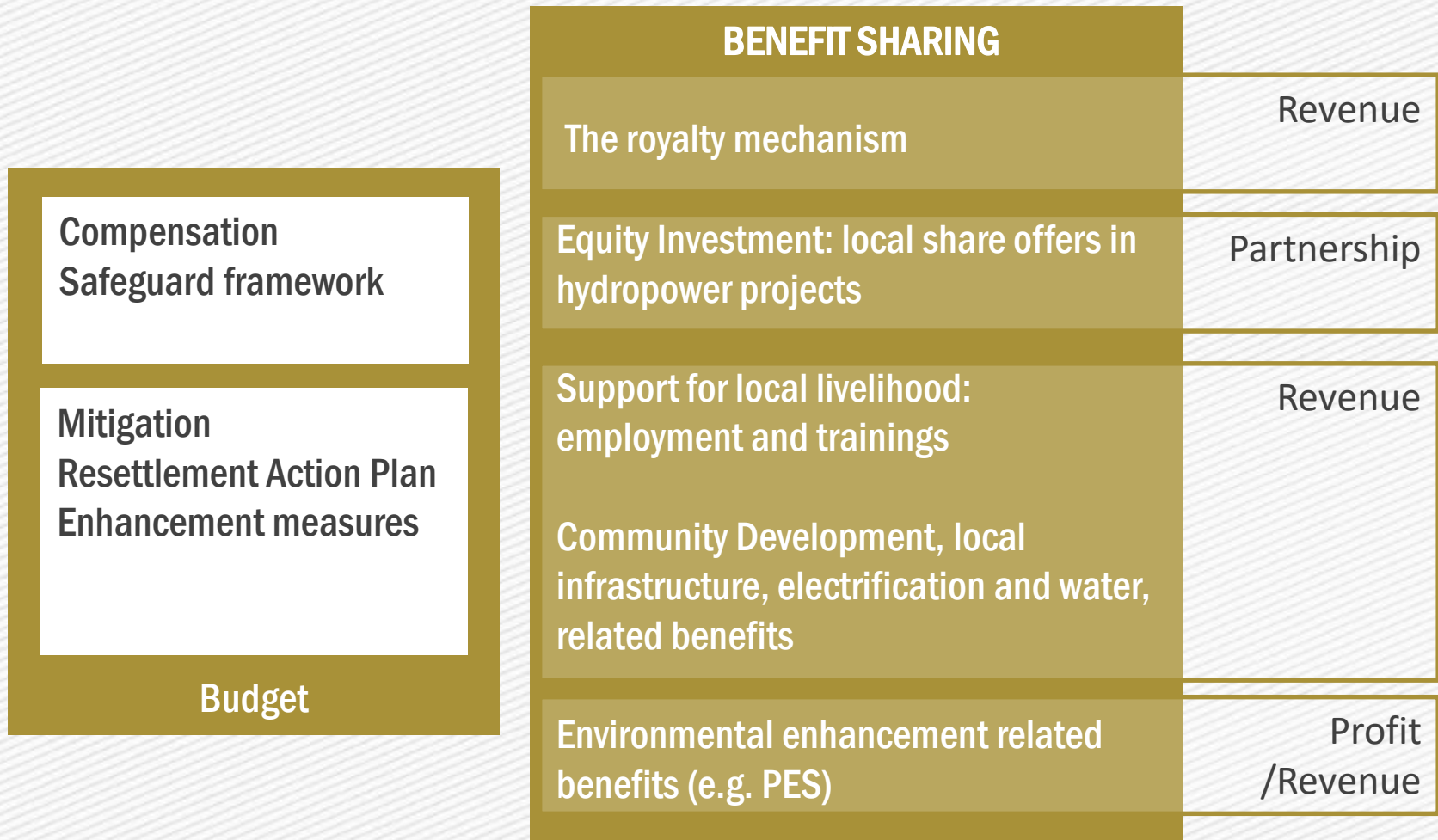
- viable energy solution in the Himalayas
- Failure of trickle down effects

Clean -“low carbon” – energy solution

Benefit sharing and “social license to operate”



Defining benefit sharing



Lack of uniformity in definition of Benefit sharing

- **World Commission on Dams, 2000**
 - distinguished six sources of project benefits: i) revenue sharing; ii) rights to irrigation and fisheries; iii) jobs and training; iv) preferential access to resources, v) community service; vi) household trainings and loans
- **UNEP compendium 'Dams and development' , 2007**
 - Monetary and non-monetary benefits
- **SWECO (2011)**
 - Five categories – i) project designs and operations; ii) ancillary investments outside core infrastructure; iii) direct disbursements; iv) institutions and capacity building and v) policy and regulatory framework
- **Very thin line between mitigation measures and benefit sharing**

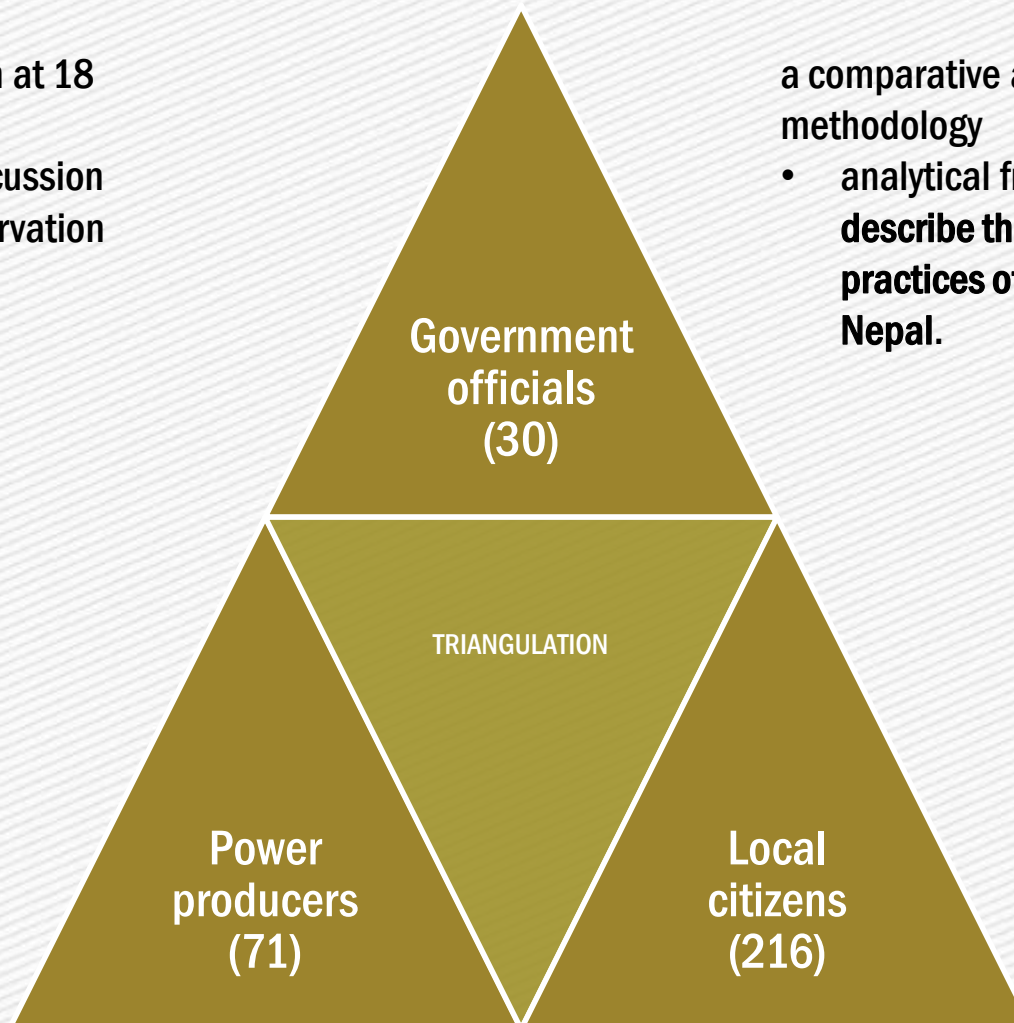
Methodology

Field based research at 18 hydropower sites

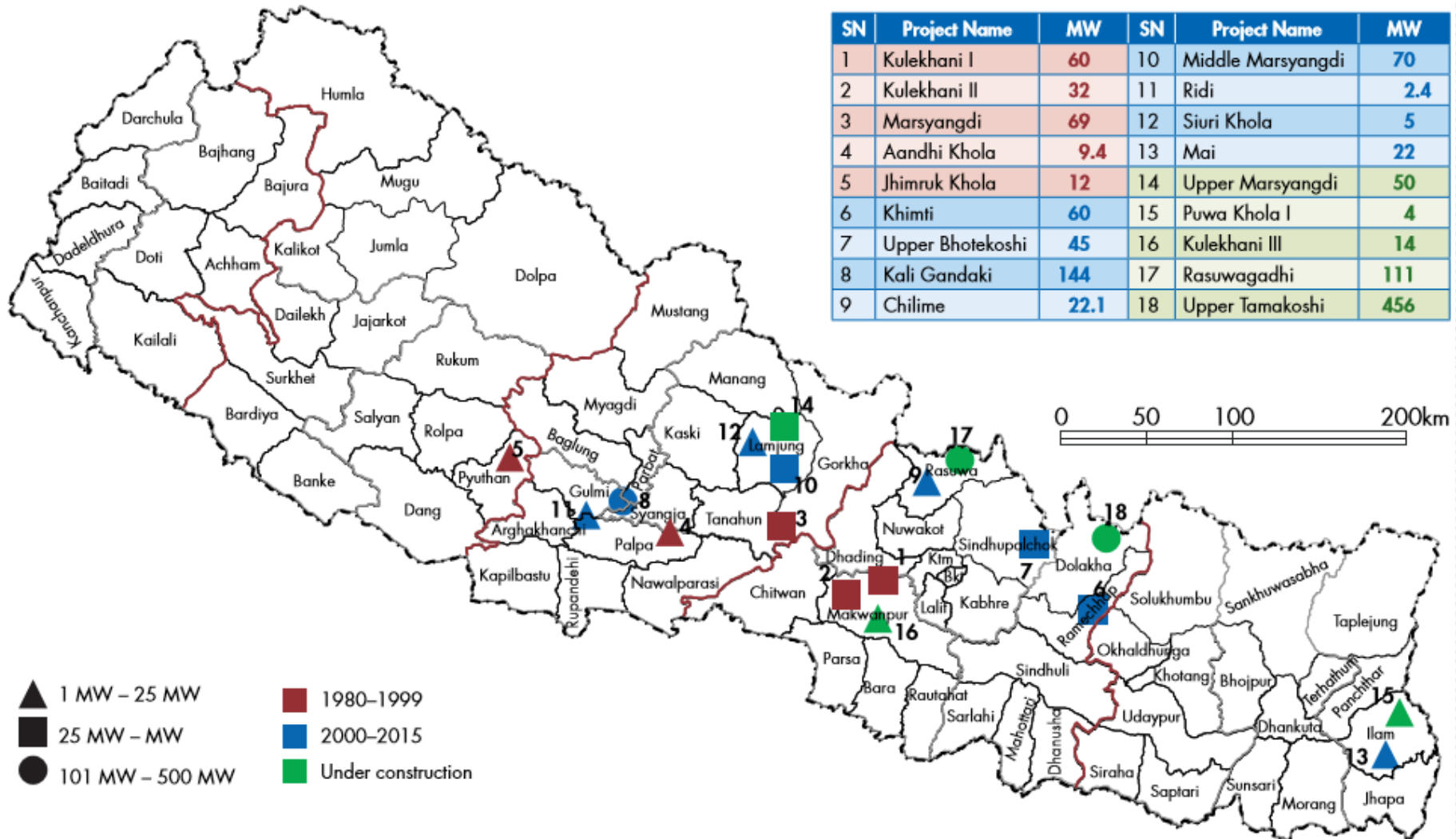
- Focus group discussion
- Participant observation
- Interviews

a comparative and deductive methodology

- analytical framework that can describe the major trends and practices of benefit sharing in Nepal.



Location of hydropower projects, selected as case studies



Methodology – Selection of hydropower projects

- Location/Geography

Mid Western	Western	Central	Eastern
1	7	8	2

- Project size

Small 1-25 MW	Medium 25-100 MW	More than 100MW
8	7	3

- Ownership

NEA	NEA subsidiary	IPP
6	3	9

- Project Type

Storage	RoR	Peaking RoR	Cascade
1	9	6	2

- Historical development

Before 2000	After 2000	Under construction
7	5	6

Hydropower Development in Nepal



Time period	Political status	Hydropower Development	Benefit sharing practice
Pre 1990s	Panchayat Regime	All hydropower projects carried out by government through NEA	Notify + Compensate
1990-2000	Democracy	Entry of private sector in hydropower generation after introduction of liberal economic policies	Beginning of benefit sharing practices beyond mitigation
2000-new constitution	Peak of Maoist insurgency and start new constitution making process	Promulgation of new hydropower policy, but failure to support it with other legal provisions	Right based discourse Local community expectations Tested innovations in benefit sharing
Current	Post Constitution	IBN working with global companies – GMR, Three Gorges, Sutlej for over 500 MW projects Energy Crisis Mitigation Plan	Need for institutionalizing sustainable development and benefit sharing mechanisms

Types of benefits

The Royalty Mechanism

- Government's Single most formalized benefit sharing policy: for collection of royalty from hydropower projects and distribution through local government

Equity Investment

- Financial strategy
- Social strategy (unique to Nepal)

Local livelihood: Employment and Trainings

- High demand from locals given wide spread unemployment and ubiquitous patterns of labor migration in Nepal

Community Development and Local Infrastructure

- most commonly cited example of benefit sharing, also referred to as CSR by some projects

Environmental Enhancements

- Payment for Ecosystem Services (PES)

Summary of benefit sharing practices



SN	Project Name	Royalty	Local Project Shares	Community Development Fund	Local Livelihoods Program	Electricity Support	Water & Environment Benefits
1	Kulekhani I	Pays	n/a	No	Local Jobs, Trainings	Infrastructure provided and no load shedding	Drinking, Fisheries
2	Kulekhani II	Pays	n/a	No	Local Jobs, Trainings	Infrastructure provided	Drinking
3	Marsyangdi	Pays	n/a	Yes	Local Jobs, Trainings	n/a	Drinking, Irrigation
4	Aadhi Khola	Pays	n/a	Yes	Local Jobs, Trainings	BPC Grid Distribution	Drinking, Irrigation
5	Jhimruk	Pays	n/a	Yes	Local Jobs, Trainings	BPC Grid Distribution	Drinking, Irrigation
6	Khimti	Pays	n/a	Yes	Local Jobs, Trainings, Local Union	MHP plant built and local cooperative established	Drinking, Irrigation
7	Upper Bhotekoshi	Pays	6% Private Pending	Yes	Local Jobs, Trainings	Infrastructure Provided	Drinking
8	Kali Gandaki A	Pays	n/a	No	Local Jobs, Trainings	Connections to some houses	Drinking, Irrigation, Fisheries
9	Chilime	Pays	10% Issued	Yes	Local Jobs, Trainings	Infrastructure provided	Drinking

Summary of benefit sharing practices

SN	Project Name	Royalty	Local Project Shares	Community Development Fund	Local Livelihoods Program	Electricity Support	Water & Environment Benefits
10	Middle Marsyangdi	Pays	n/a	No	Local Jobs, Trainings	Infrastructure provided	Drinking, Cultural, Enviro Data
11	Ridi	Pays	10% Issued	Yes	Provided	Preferential tariff and 'no load shedding	Drinking, Irrigation
12	Siuri Khola	Pays	10% Issued	No	Provided	Infrastructure provided	None
13	Mai	Pays	10% Issued	Yes	Provided	Infrastructure provided	Drinking
14	Upper Marsyangdi	N/A	n/a	No	Provided	N/A	Drinking
15	Puwa Khola I	N/A	10% Planned	No	Provided	N/A	TBD
16	Kulekhani III	N/A	n/a	No	Provided	N/A	Drinking, Attempted Enviro Scheme
17	Rasuwaghadi	N/A	10% Planned	No	Provided	Infrastructure provided	Cultural, Enviro Data
18	Upper Tamakoshi	N/A	10 % Pending	No	Provided	Infrastructure provided	Drinking, Enviro Data

Summary of benefit sharing practices

Royalty

- All projects have paid royalty after commercial operation

Equity shares

All Independent power producers registered as public limited company has issued or plan to issue shares

Exception: Bhotekoshi as a private company has committed to shares, but modality not clear

Rural Electrification

Separate micro hydro plant

Preferential tariff and no load shedding (2)

BPC/NEA grid connection (3)

Infrastructure support and no load shedding

Infrastructure support (8)

Not applicable(3)

Summary of benefit sharing practices

Employment and training

- Provided by all projects with preference to locals

Community Development Funds

11 / 18 hydropower projects have separate community development funds

Difficult to allocate separate community development fund for NEA (public) projects and small sized projects

Water and Environment related Benefits

Almost all projects have provided such benefits

Drinking water

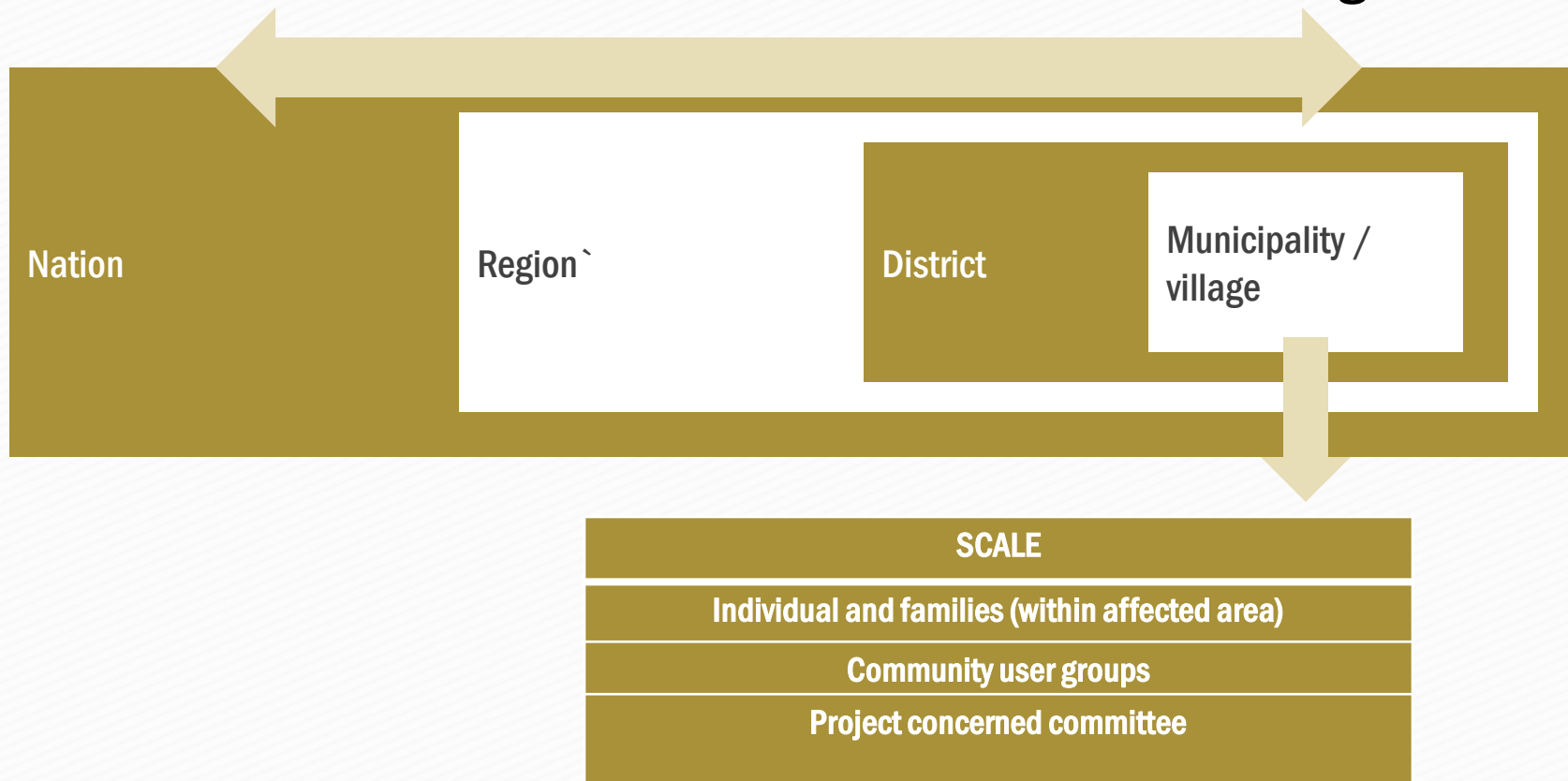
Irrigation

Agriculture, fisheries

Difficult to separate between mitigation and benefits

Scales of Benefit sharing

Definition of affectedness tied to benefit sharing



Temporal aspects of benefit sharing

Before Construction

During
Construction

After construction

Handing over to
government

The Royalty Mechanism

Equity Investment

Local Livelihood: Trainings and jobs

Community Development and Local Infrastructure

PES



Commonalities, differences, and concerns



What qualifies as benefit?

Size of project and community expectations

Varying scales of affectedness

Differing form of governance

Differences in benefit sharing practices with varying ownership structures

Commonalities, differences, and concerns



Lack of monitoring

Awareness, communication failure and conflict

Implications of federal and state restructuring

Issues of gender and social inclusion

Shifting temporal values of benefits

Conclusion

- **Benefit sharing as an evolving process in Nepal's hydropower development**
- **"Pluralistic policy terrain"**
- **Communication to avoid information asymmetry**
- **Local development outsourced to hydropower projects???**
- **Energy crisis <> Long term plan <> Environmental risks**
- **Not a panacea to solve all the hydropower related problems**
- **Lessons for other countries**