"SHARING BENEFITS" OF HYDROPOWER PROJECTS WITH SPECIAL REFERENCE TO "THE SHARES MODEL"

ADVANCING SUSTAINABLE HYDROPOWER TECHNICAL WORKSHOP SERIES

January 23-24, 2017

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Based on the study by Niti Foundation and ICIMOD on “Benefit Sharing and Sustainable Hydropower: Lessons from Nepal” (2016) and the workshop by Niti Foundation and Social Science Baha on “The Question of Shares in the Development of Hydropower in Nepal” (2015)
Lack of Uniformity in Definition

• Benefit Sharing: **How can benefits derived from hydropower projects be shared with local communities in a fair and equitable manner?**

• 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; and 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
“Social License to Operate”

- Key constraints for rapid hydropower development: Managing local expectations
  - Where do these expectations come from: rights over resource issue; desire for development and lack of governance; extractive tendencies
Benefit Sharing and Sustainable Hydropower: Lessons from Nepal
Location of Hydropower Projects in Study

<table>
<thead>
<tr>
<th>SN</th>
<th>Project Name</th>
<th>MW</th>
<th>SN</th>
<th>Project Name</th>
<th>MW</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Kulekhani I</td>
<td>60</td>
<td>10</td>
<td>Middle Marsyangdi</td>
<td>70</td>
</tr>
<tr>
<td>2</td>
<td>Kulekhani II</td>
<td>32</td>
<td>11</td>
<td>Ridi</td>
<td>2.4</td>
</tr>
<tr>
<td>3</td>
<td>Marsyangdi</td>
<td>69</td>
<td>12</td>
<td>Siuri Khola</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>Aandhi Khola</td>
<td>9.4</td>
<td>13</td>
<td>Mai</td>
<td>22</td>
</tr>
<tr>
<td>5</td>
<td>Jhimruk Khola</td>
<td>12</td>
<td>14</td>
<td>Upper Marsyangdi</td>
<td>50</td>
</tr>
<tr>
<td>6</td>
<td>Khimti</td>
<td>60</td>
<td>15</td>
<td>Puwa Khola I</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>Upper Bhotekoshi</td>
<td>45</td>
<td>16</td>
<td>Kulekhani III</td>
<td>14</td>
</tr>
<tr>
<td>8</td>
<td>Kali Gandaki</td>
<td>144</td>
<td>17</td>
<td>Rasuwasagadhi</td>
<td>111</td>
</tr>
<tr>
<td>9</td>
<td>Chilime</td>
<td>22.1</td>
<td>18</td>
<td>Upper Tamakoshi</td>
<td>456</td>
</tr>
</tbody>
</table>

Legend:
- ▲ 1 MW – 25 MW
- ■ 25 MW – 500 MW
- 101 MW – 500 MW
- ▪ 1980–1999
- □ 2000–2015
- □ □ Under construction
## Selection of Hydropower Projects

### Location/Geography

<table>
<thead>
<tr>
<th>Region</th>
<th>Mid Western</th>
<th>Western</th>
<th>Central</th>
<th>Eastern</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>7</td>
<td>8</td>
<td>2</td>
</tr>
</tbody>
</table>

### Project size

<table>
<thead>
<tr>
<th>Size</th>
<th>Small 1-25 MW</th>
<th>Medium 25-100 MW</th>
<th>More than 100MW</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8</td>
<td>7</td>
<td>3</td>
</tr>
</tbody>
</table>

### Ownership

<table>
<thead>
<tr>
<th>Ownership</th>
<th>NEA</th>
<th>NEA subsidiary</th>
<th>IPP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6</td>
<td>3</td>
<td>9</td>
</tr>
</tbody>
</table>

### Project Type

<table>
<thead>
<tr>
<th>Type</th>
<th>Storage</th>
<th>RoR</th>
<th>Peaking RoR</th>
<th>Cascade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>9</td>
<td>6</td>
<td>2</td>
</tr>
</tbody>
</table>

### Historical development

<table>
<thead>
<tr>
<th>Time</th>
<th>Before 2000</th>
<th>After 2000</th>
<th>Under construction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
## Hydropower Development in Nepal

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

**Energy Crisis Mitigation Plan**
## Defining Benefit Sharing

### BENEFIT SHARING

<table>
<thead>
<tr>
<th>Description</th>
<th>Revenue</th>
<th>Partnership</th>
<th>Revenue</th>
<th>Profit/Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>The royalty mechanism</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equity investment: local share offers in hydropower projects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support for local livelihood: employment and trainings</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community development, local infrastructure, electrification and water, related benefits</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental enhancement related benefits (e.g. PES)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Key Considerations

- Compensation
- Safeguard framework
- Mitigation
- Resettlement Action Plan
- Enhancement measures
## Types of Benefits

<table>
<thead>
<tr>
<th>Benefit Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Royalty Mechanism</strong></td>
<td>Government’s single most formalized benefit sharing policy: for collection of royalty from hydropower projects and distribution through local government</td>
</tr>
</tbody>
</table>
| **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)                                                            |
Royalty Collection and Distribution

- **Collection of Royalty: Electricity Act 2049**

<table>
<thead>
<tr>
<th>Up to 15 years</th>
<th>After 15 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual capacity royalty, per kW</td>
<td>Energy royalty per kWh</td>
</tr>
<tr>
<td>Rs. 100</td>
<td>2%</td>
</tr>
</tbody>
</table>

- **Different formula in Hydropower Policy, 2001**

- **Distribution of Royalty: Local Self Governance Act and Regulation**

<table>
<thead>
<tr>
<th>Central Gov.</th>
<th>Districts in Dev. Region</th>
<th>District (DDC)</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>50%</td>
<td>38%</td>
<td>12%</td>
<td>100%</td>
</tr>
</tbody>
</table>

- **Priority spending: electricity related development**
Distribution of Royalty

**Spatial**
- No mechanism to distribute royalty to the affected VDCs (only to DDC)
  - Exception: Makawanpur District
- Contestation among districts in projects adjoining 2 or more districts (on 12% or 38%??)
- Multiple projects – no clear path of royalty flow from source to destination
- Federal governance??

**Temporal**
- Timing of collection and distribution

**Decision making mechanism:**
- District council
Equity Investment - Shares

- Unlike others, equity investment is different from other benefits
  - Benefit goes to individuals
  - Minimum government intervention
  - Not only cost sharing >> also risk sharing
Shares Questions

- Shares for What?? – equity sharing or conflict mitigation?
- What percentage of the total project budget?
- Who gets shares and what should be their priority?
  - Spatial dimensions
  - Criteria >> migratory trends

Timing issues:
  - During construction or After construction
- Shares at what value: face value vs. premium value?

Governance
- Communication and Outreach
- Role of government institutions
Local Livelihood – Jobs

• Personal benefits

JOBS
• Demands for local jobs – lack of local skilled manpower
• Priority setting for hiring in many projects: displaced >> affected VDCs >> affected districts
  – In some cases, decided by a local committee
• During construction – contractor provides large number of jobs
• After the construction few jobs for locals by the project

• Jobs for work? Or jobs for just salary?
Local Livelihood – Trainings

- Trainings before job (e.g. scaffolding)
- Gender focused trainings (e.g. computer, cooperative)
- Agriculture trainings (e.g. bee keeping)

- Common characteristics of the trainings
  - during construction
  - People in affected VDCs
Community Development/CSR

• Core benefit sharing activities
• Priority Areas
  – Health
  – Education
  – Road
  – Water Supply
  – Religious / Cultural sites
• Claims of community development and social mitigation measures in Social Impact Assessment – Any different?
• Separate fund allocation?
Rural Electrification

• Types of models observed
  – Provision of free electricity and distribution infrastructure to the local electricity group, which then manages the distribution
  – Preferential tariff rates for those living in the affected VDCs
  – Provision of distribution infrastructure, but the electricity is purchased by rural electricity groups through NEA
  – Rural electrification through NEA
Divergent Frames of Rural Electrification

What encompasses rural electrification?

• Free/preferential electricity; no load shedding; distribution infrastructure.

Spatial
• Rural electrification up to where?

Governance
• Who is responsible? – NEA? Hydropower Project? Rural Electrification groups?
PES, Water Rights, and Ancillary Benefits

- Payment for Ecosystem services (PES)
  - PES from royalty money in Kulekhani
  - Challenges of implementing PES
- Water rights
  - Fishing
  - Irrigation
- Ancillary benefits
  - Earthquake rescue/relief
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
  - BPC/NEA grid connection
  - Infrastructure support and no load shedding
  - Infrastructure support
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

<table>
<thead>
<tr>
<th>SCALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual and families (within affected area)</td>
</tr>
<tr>
<td>Community-level institutions</td>
</tr>
<tr>
<td>Project-concerned committee (district-level)</td>
</tr>
</tbody>
</table>
Temporal Aspects of Benefit Sharing

Before Construction

During Construction

After construction

Hand over to the government

The Royalty Mechanism

Equity Investment

Local Livelihood: Trainings and jobs

Community Development and Local Infrastructure

PES
Citizen Project Interface

- Concerned Committees
- Local committee (generally non-elected)
- Claims to represent affected citizens for holding the project accountable
- Makes decisions of distribution of benefits

Multi stakeholder committees examples
- Task Force Committee of the Khimti Hydropower Project
- District Coordination Committee for the Upper Tamakoshi Project
Conclusion of the Study

- Benefit sharing as an evolving process in Nepal’s hydropower development
- “Pluralistic policy terrain”
- Significant information asymmetry and the need to communicate with locals
- Local development outsourced to hydropower projects???
- Energy crisis <> Long term plan <> Environmental risks
- Not a panacea to solve all the hydropower-related problems
- Public policy problem
Workshop on “The Shares Question”

• Organized on April 16, 2015 by Niti Foundation and Social Science Baha

• Session I: Case Studies – In-depth analyses of the share offerings conducted for the Chilime and Upper Tamakoshi Hydropower Projects focused on the different contexts of these offerings, the modalities used, procedural considerations, social and political issues surrounding each offering, and their effects on the broader hydropower sector.

• Session II: Panel Discussions – Three plenary panels focused on a) the procedural and financial issues consideration, b) social and conceptual issues of share offerings, and c) the current policy environment and the role of policy and institutions in shaping the evolution of the shareholder model.
Key Takeaways: Case Studies

- Chilime, back then, had to plead people to invest in the shares of the company to raise initial funds.
- After much struggle from the locals in Rasuwa, the Supreme Court determined that 10% of the shares be allocated to the local communities.
- A big problem in issuing shares is determining project affected areas. Who counts as being affected by the project?
- Other areas also want to be “affected” as they claim that negative externalities from roads that had been constructed through their VDCs for the project have adversely affected their lives.
- Labors working in the construction of Upper Tamakoshi have also protested claiming for higher shares.
- Shares distribution also brought about other social changes such as reverse migration, increased land acquisition, and higher numbers of citizenship documentation.
Key Takeaways: Panel Discussions

- Policy rationale for 10% allocation – why no 5% or 15%
- Lack of policy clarity:
  - Who is this applicable and how will such companies proceed (Pvt. HPP)
  - What will happen to the shares post license period
  - Who qualifies as being affected (EIA vs local expectations and demands)
  - Which act supersedes which: the Electricity Act or the SEBON Act
- Developers concern: Time and transaction cost required to facilitate local shares may impact cash flow requirements and project completion timeline
- Weighing risk and returns – capital gains not guaranteed thus the need for improvements in royalty sharing mechanism
Final Thoughts

The current discourse on local shares in hydropower development Nepal is slightly confounding because of the overlap of ideas on local shares as:

i) a “sophisticated” financial tool that can be used to raise the required equity for financing hydropower projects

ii) a mechanism for increased participation, for ownership and for conflict mitigation,

iii) benefit sharing mechanism (with little understanding of the risks associated)

A major challenge that still exists is to bring clarity on how shares should be understood in hydropower projects.
THANK YOU