Hydropower Revenue-Sharing as a Mechanism for Watershed Financing in Lao PDR

Dr. Stephen Sparkes
Social and Environmental Division Manager for THXP (THPC)
(NORPLAN/Multiconsult Norway)
Overview of Presentation

• Hydropower impacts on the environment and mitigation in context of Lao PDR
• Two examples:
  – Nam Theun 2
  – Theun-Hinboun Expansion Project
• Benefit-sharing options and conclusion
Hydropower and Conservation

• Hydropower and impacts on the environment – negative impacts, loss of land and resources
• Location of projects often in remote areas with high biodiversity values
• Replacement in terms of land difficult
• Other options:
  – Protection of adjacent areas of higher value
  – Rehabilitation of degraded forests
• Potential ‘win-win’ solution: management of catchment forests
Nam Theun 4 dam site proposed

THXP dam and reservoir

Theun-Hinboun dam and Headpond

Nam Theun 1 dam site proposed

Nam Theun 2 dam and reservoir
NT2 and Nakai-Nam Theun Protected Area

- World Heritage Catchment proposed with high biodiversity
- Critically endangered species (Saola)
- Halting commercial logging (WB requirement)
- Interventions to protect flora and fauna from enclave villages and outsiders
- Lack of funding and management
Environmental Management - SEMFOP

- Management Plan for forest resources with participation of local villagers (livelihoods)
  - Access Development and Management
  - Demographic Management
  - Forest and Land use Planning (Zoning)
  - Participatory Biodiversity Monitoring and Management (patrolling and enforcing)
Social Management – SEMFOP

- Village Livelihood Development:
  - Irrigated rice
  - Rainfed crops
  - Fruit trees
  - NTFPs
  - Managed hunting
  - Tourism

- Community and Social Development:
  - Schools
  - Health care
  - Access infrastructure
Watershed Management and Protection Authority (WMPA)

- Institutional arrangements for long-term management of the NNT-NPA
- Technical Assistance and monitoring
- Funding secured through NT2
Theun-Hinboun Expansion Project

- Catchment is a mosaic of habitats and forest types
- Reservoir highly impacted by swidden agriculture
THXP Reservoir Area
Catchment Protection Plan for THXP

- Creation of a new Provincial Protected Area to protect the catchment – reduce erosion and sediment run-off
- Regeneration and rehabilitation of degraded forests and old swidden areas
- Prohibit reestablishment of swidden
- Reduce hunting and trade in wildlife products through patrolling and education
Proposed Protected Area
Ongoing steps at THXP

- Discussion on finalizing boundaries of former village territories (resettled villages)
- Wildlife corridors – movement of animals between habitats and protected areas
- Working with GoL and WCS (IEWMP)
- Flora survey for establishing nurseries
- Funding from THPC and Env. Protection Fund
Benefit-Sharing Options

- Direct transfer of funds to local GoL organizations and earmarking funds not an option
- Funding from PPP to specific bodies and agencies to carry out the work – CA obligations
- NT2: One million/year USD to WMPA and also funding via MoF for poverty alleviation and SERF (?)
- THXP: 2.3 million for conservation programs w WCS and then contribution to EPF
Positive Aspects

• Funds available from PPP – CA obligations
• Win-win aspect in terms of catchment management and electricity generation
• Agreements with International NGOs and experts for technical assistance
• Want to see “value” for money and international monitoring of performance
Challenges

- Weak local, regional and national level institutions (within PAFO and between ministries and agencies)
- Unclear responsibilities and funding mechanisms (EPF, SERF, etc.)
- Need for long-term commitments by qualified groups and organizations as TA
- Difficult to keep out other interest groups (loggers, miners, other hydropower projects, etc.)