Pak Beng hydropower in the context of Lao development strategy and MRC sustainable development

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Understanding the needs of Lao PDR

- Lao PDR is rich in natural resources, especially water resources
- We contribute 41% of the flow into the Mekong river (more than any other countries)
- Despite economic growth over the last decade, Laos is still the least developed country in the Mekong
- Lao people living in poverty about 28% (highest in the Mekong) and much higher in rural areas
- Therefore, it is the national policy and priority of the Lao government to lift its people out of poverty and graduate from LDC status by 2020
Development context of the Mekong

- Development in the Mekong basin started long ago
- Thailand developed hydropower and irrigation dams over the last fifty years
- Viet Nam benefited from hydropower development in the central highlands (upstream of Cambodia) as well as aquaculture and irrigation expansion in the Delta over the last century
- There were Mekong basin development plans in 1970s and 1980s but not much was implemented in Laos and Cambodia due to instabilities
- With peace and stability in the region, development in less developed parts of the basin are now taking off
1995 Mekong Agreement supports:

- **Cooperation** in all fields of sustainable development

- **Sovereign equality and territorial integrity:**
  - the right of riparian countries to sustainably develop its water resources

- **Reasonable and equitable development:**
  - Already developed parts of the basin cannot prevent or foreclose the opportunities of other less developed parts of the basin to develop
Lao PDR participated with other member countries in conducting MRC Assessments of basin-wide development scenarios 2011 (being updated under Council Study)

From the assessment we know:

- There is scope for further basin development

- Hydropower developments Lao PDR and China will provide additional water during the dry season

- Other countries can use the additional water to develop their planned water use (diversion, irrigation expansion, etc)
MRC scenario assessment: Transboundary negative impacts of the six mainstream dams in northern Lao PDR (including Xaiyaburi and Pak Beng) are relatively small and cannot be measured with confidence (other factors involved)
MRC Basin Development Strategy and PNPCA

- Lao PDR is following Basin Development Strategy and PNPCA
- BDS approved by the MRC Council of ministers in 2016
- Allows development opportunities in tributary hydropower development and mainstream hydropower development (but consider and address risks)
- Lao PDR also complies with MRC Procedure for Notification, Prior Consultation and Agreement (PNPCA)
  - Lao PDR submitted 27 notifications (the most information shared)
  - Lao PDR has done two prior consultations and now one more
Lao national development strategy

- National Socio-Economic Development Strategy 2016-2025 and the 8th Five Years Socio-Economic Development Plan (NSEDP) 2016-2020 focusing on:
  - Promoting economic growth 7.5% or GDP of 2.978$/cap. by 2020
  - Achieving MDG to reduce poverty rate below 5%
  - Promoting environmental protection and sustainable development
  - 70% forest cover by 2025
Sustainable hydropower development is good policy

- Hydropower is clean, zero carbon emission and renewable;
- With the present electric power generated by hydropower of 21,000GWh in Lao PDR helps reduced the CO2 emission by 19 mio.T yearly compared with coal fired.
- Hydropower is a non-consumptive use of water
- Sustainable and responsible development of hydropower can be a catalyst for economic development and can help bring millions of people out of poverty (as other developed countries have done)
Lao hydropower development policy and standards

• National Policy on Environment and Social Sustainability of Hydropower Sector – *now replaced by Policy on Sustainable Hydropower Development*

• Social and Environmental Standards and Obligations (SESO) – annex to Concession Agreements
Policy on Sustainable Hydropower Development:

• All large hydropower projects must produce a full Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP).

• The right of all project-affected people will be recognized, and achieved through a Resettlement & Social Development Plan.

• A watershed adaptive management and participatory planning strategy will be developed to stabilize land use, and manage Protected Areas.

• Consultations will be conducted with all project-affected communities.

• Revenue sharing with the Environment Protection Fund (EPF).

• Ensure financial and technical sustainability of the Project.
Meeting national and regional needs

Hydropower development has two primary purposes for Lao PDR:
1) Promotes economic and social advancement by providing a reliable, clean and affordable domestic power supply
2) Attracts FDI and earns foreign exchange from exporting electricity while contributing to economic development and sub-regional energy demand

Lao PDR has benefit-sharing agreement with our neighbors to supply power:
- 9000 MW to Thailand by 2025
- 5000 MW to Vietnam by 2030
- 1500 MW to Cambodia by 2025
National planning and regulatory process

- Lao hydropower development plan – list of projects at different stages of planning and implementation

- Many projects were studied and part of the Mekong Committee Indicative Basin Plan 1970/1987 and 1994 Plan/study by CNR

- Before implementation, all large projects strictly follow national policy on hydropower regarding technical studies, EIA and SIA and consultations with national and local stakeholders

- All large projects must be approved by the National Assembly

- During project studies and implementation, Lao PDR engages the best experts from around the world
Progress of Xaiyabouri HPP

- Capacity: 1285 MW = 7x175MW + 1x60MW
- Output: 7000 GWh/year of clean energy
- 500 kV connecting to Thailand via Khonkaen S/S
- Construction started **November 2012**
- Overall completion 73,8%:
  - Dam civil works 84,7% (Navigation lock 100%, Spillway/Sediment flushing 100%, Fish passing facilities – on-track)
  - Power house 69,3%
  - Power line 73%
- Expected COD: **end of 2019**
Progress of DonSahong HPP

- Capacity: 260 MW = 4 x 65 MW bulb-type
- Output: 2044 GWh/year of clean energy
- T/L 230 kV connecting to EDL grid via BanHat S/S
- Construction started February 2015
- Overall completion approx. 20%
- Expected COD: end of 2019
Mekong basin planning and consultation process

- Lao PDR shares information about hydropower plans as part of MRC basin planning process – scenario assessment, SEA, Council Study, and development of Basin Development Strategy

- We openly engage with our neighbors and other stakeholders as part of PNPCA process. We expect in return constructive comments and engagements and not unfair criticisms

- For Xayaburi project, we considered the recommendations from MRCS, made improvements to project design at our additional cost, and invite all to visit

- For Don Sahong project, we have openly engaged with member countries and partners, invited anyone interested to visit the site, and considered recommendations from the PNPCA process

- We commit to further dialogue as part of post-consultation and joint monitoring by MRC
THANK YOU