



PNPCA Consultation and Improvement for Hydro-power Development on Mekong River

Haomiao Yu, Hohai University & PowerChina Kunming Engineering Corporation Limited Shaojun Chen, Hohai University

Presenter: YANG Guang

PowerChina International Group Limited



Mav 30th . 2022







1.Introduction

- With a total length of 2,639km and a basin area of 630,000 km², the Mekong River flows through 5 countries including Myanmar, Laos, Thailand, Cambodia and Vietnam. In accordance with the analysis and research, the hydroelectric potentiality of Mekong is over 32 GW, but the distribution is uneven. 51% of hydroelectric potentiality is located in Laos and 33% in Cambodia.
- Hydro power development, flood control, farmland irrigation and navigation on the Mekong River will promote the socio-economic development of riparian countries and local areas, and improve the production and living standards of the people.









1.Introduction

- The population in the Mekong River basin accounts for 1/3 of total population of the riparian countries. The basin is densely populated and is featured by diverse ethnic groups, religions and cultures. It is rich in natural resources but relatively backward in social and economic development.
- Due to complicated historical and political reasons and the allocation of resources and benefits of the Mekong River, the governments of the 4 countries along the Mekong have different attitudes and interest demands towards the development of the Mekong River. Further, more and more political intervention makes the development complicated.









1.Introduction

• Will Mekong be developed?

Riparian countries have agreed to 'develop, utilize, protect and manage the water resources of the Mekong River '.

How to develop Mekong?

The method is to establish the mechanism of Procedures for Notification, Prior Consultation and Agreement (PNPCA).







ICOLD & CFBR Symposium

Sharing water: Multi-purpose of reservoirs and innovations

Partager l'eau : Multi-usages des réservoirs et innovations



2. *History of Consultation*

In the 1970s, Mekong had 7 cascades as per Guiding Plan for the Mekong River Plan with total storage of 258.9 billion m³, installed capacity of 23.3GW and more than 300,000 people to be relocated for every project.

In 1994, MRCs proposed 9 cascade development plans. The use of runoff development greatly reduced inundation losses, and the displaced population was reduced to 60,000, at the same time, the installed capacity was reduced by 10,000MW.

In 2007, the latest development plan have 11 projects with Pakbeng, Luang Prabang, Xayaburi, Paklay, Sanakham, Pakmong, Ban khum, Phou Ngoy, Dong Sahong, Stung Treng and Sombo, the installed capacity was reduced by 3000MW but the affected people fell by a further 50%. In the 1950s, the CCILMB was established. In 1975, the Joint Statement on the Cooperative Principle stipulated that the projects on the mainstream of Mekong shall be approved by the Committee before implementation.

In May 1978, a separate ICCILMB was established temporarily among Thailand, Vietnam, and Laos, focused on such key projects as food, flood control and navigation, The member countries had its own right to develop the projects on the Mekong River within their own territory.

April 5, 1995, riparian countries signed the AGREEMENT ON DEVELOPMENT OF THE MEKONG RIVER, and established a new MRC. The basic principle is, the development of the Mekong mainstream requires prior notification to MRC, and requires consultation and agreement before implementation







2.History of Consultation among Four Countries along the Mekong River

The MRC consists of the Council, Joint Committee and Secretariat:

- The Council is the highest institution of MRC, responsible for policy formulation of '*water resources utilization and inter-basin water transfer*', dispute resolution and supervision of all activities of MRC. Each of the four riparian countries will send a representative.
- The Joint Commission is the body that implements the specific policies and is responsible for resolving differences among member states in consultations.
- The Secretariat is the technical and administrative department responsible for the day-to-day affairs of the institution.



















3. Mechanism of the PNPCA Consultation

	Prior Consultation
Scope	1. Trans-basin water diversion from Mekong mainstream in rainy season
	2. Use of water resources on Mekong mainstream in dry season
	3. Trans-basin water diversion in dry season
Content/	1. Feasibility study report
Document	2. Project implementation plan
	3. Progress schedule
	4. Other technical data and information
Procedure	The NMC of sponsoring country delivers the documents of the proposed project to JC via the MRCs. MRCs
	delivers the documents to other member countries for assessment and reply.
	Other member countries assess and feedback their comments to JC through the Secretariat
	The JC signed a resolution on the consensus reached.
	PNPCA concerned about 5 issues related to project development: Navigation, Fish Passage, Sediment Transport
	and River Morphology, Water Quality and Aquatic Ecology, Dam Safety
	pls see the case of PNPCA process: Pak Beng Hydropower Project









4. Advantages of the PNPCA Consultation

In the form, the PNPCA on Mekong hydropower development has been recognized and established by riparian countries. It is more standardized than the original negotiation mechanism. The parties involved in the negotiation are more diverse and extensive.

In terms of results, the PNPCA results are very rich, and several procedural communications and reports have been completed:

- JC meetings, JCWG meetings, Information sharing and consultation meetings between MCS, information sharing meetings of regional stakeholders, etc.
- Project Status Report, Scoping Assessment Report, Technical Review Report (TRR), National Comments Matrix, National Information Sharing Report, Regional Stakeholders Comments Matrix, Regional Information Sharing Report.
- Statement on Prior Consultation Process for Mekong Hydro-power Projects issued by MRC,
- Joint Action Plan formulated for the specific implementation of the prior consultation procedures for Mekong Hydro-power Projects.









5. Deficiency of the PNPCA Consultation

(1) The participants are diverse, but the evaluation criteria and basis are different

- The guidelines used in PNPCA is *MRC Preliminary Design Guidelines*, which are broad, introductory and cannot guide developers on how to deal with key issues. The standards and basis of each cascade project are different.
- Secondly, the technical review professional unit of each project is inconsistent.
- Finally, *Preliminary Design Guideline* hasn't been updated with the development.
- (2) The consultation mechanism lacks effective financial guarantee
- The PNPCA is supported by the developer with special funds. This financing model lacks long-term vision and cannot be effectively guaranteed. Moreover, the Statement and the Joint Action Plan require follow-up funding guarantees to monitore hydropower development.



Mav 30th . 2022







5. Improvement of the PNPCA Consultation

















5. Improvement of the PNPCA Consultation

(1) Establish a unified technical standard for hydropower development in the Mekong River Basin

- Establish a unified hydropower technical standard that conforms to the characteristics of the Mekong River to guide developers to build hydropower projects on the Mekong.
- MRC secretariat should have a professional team to ensure the consistency of each project review.
- (2) Carry out research on the benefit-sharing mechanism in the Mekong River
- Put forward the benefit-sharing requirements for the hydropower development of the Mekong River, establish a benefit-sharing fund for the development of Mekong, and promote benefit sharing among countries, regions and groups through hydropower development such as building infrastructure, social service facility construction, poverty alleviation, minority development, capacity building, etc.
- (3) Establish a funding guarantee plan for PNPCA
- It is proposed to levy a 'PNPCA package' work funding from developers of proposed projects on the Mekong River, which should cover 'prior consultation' until the project 'joint action'.









Thanks for your attention !

yuhaomiao_kmy@powerchina.cn yangguang@powerchina-intl.com



May 30th . 2022

