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

Consultation et amélioration du PNPCA pour le développement hydroélectrique sur le fleuve Mékong

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Abstract. As a trans-boundary river, the hydro-power development on the Mekong River has attracted the attention of the international community. Since the 1950s, the countries along the Mekong River discussed, consulted and established a multilateral mechanism to resolve disputes, reduce differences, authorize management, and share benefits. However it was not until 1995 that the available Procedures for Notification, Prior Consultation and Agreement (PNPCA) was basically established. This paper reviews the history of the development of a multilateral consultation mechanism by the countries along the Mekong River, analyzes the current consultation mechanism through a case example, and proposes relevant issues and corresponding improvement scheme.

Résumé. En tant que fleuve transfrontalier, le développement hydroélectrique sur le fleuve Mékong a attiré l'attention de la communauté internationale. Depuis les années 1950, les pays riverains du Mékong ont discuté, consulté et mis en place un mécanisme multilatéral pour résoudre les différends, réduire les différends, autoriser la gestion et partager les bénéfices. Cependant, ce n'est qu'en 1995 que les Procédures de Notification, de Consultation Préalable et d'Accord (PNPCA) disponibles ont été fondamentalement établies. Cet article passe en revue l'historique du développement d'un mécanisme de consultation multilatérale par les pays riverains du Mékong, analyse le mécanisme de consultation actuel à travers un exemple de cas, et propose des questions pertinentes et un schéma d'amélioration correspondant.

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With a total length of 2,639km and a basin area of 630,000 km^2, the Mekong River flows through five countries including Myanmar, Laos, Thailand, Cambodia and Vietnam, with a total head of about 491m. The population in the Mekong River basin accounts for 1/3 of total population of the coastal 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 (Claudia Ringler, 2004, P.31). In accordance with the analysis and research of relevant professional organizations, the hydroelectric potentiality of the Mekong River is over 32 GW, but the distribution is uneven. In accordance with preliminary analysis, 51% of hydroelectric potentiality is located in Laos and 33% in Cambodia (some are located on the boundary river reach). Hydro power development, flood control, farmland irrigation and navigation on the Mekong River will promote the social and economic development of coastal countries and local areas, and improve the production and living standards of the people in the region. However, due to complicated historical and political reasons and the allocation of resources and benefits of the Mekong River, the governments of the four countries (Laos, Thailand, Cambodia, and Vietnam) along the Mekong River have different attitudes and interest demands towards the development of the Mekong River. For example, Laos wants to develop hydro power stations to achieve the development goal of 'Southeast Asian storage batteries', Cambodia uses the water resources of the Mekong River to realize farmland irrigation and navigation, while Vietnam hopes to minimize the construction of dams to avoid salinization and soil erosion at the mouth of the Mekong River. Further, more and more domestic and foreign environmental organizations and foreign political intervention are involved and the environment for the development of the Mekong River is very complicated.

Taking the consultation process of the Pak Beng Hydro-power Project (PBHPP) on the Mekong River as an example, this paper introduces the multilateral development consultation mechanism for hydro-power development on the Mekong River and analyzes its deficiency and suggests its improvement.

1 Background of Hydro-power Planning on the Mekong Mainstream and Consultation

The hydro power development plan for the Mekong mainstream may be traced back to the 1970s. The early plan was based on the principle of high dams and large reservoirs. For example, in the *Guiding Plan for the Mekong River Basin (1970)*, seven cascades were planned on the Mekong mainstream from the estuary to Chiang Saen in Thailand (about 2,400km long in total), with a total storage capacity of 258.9 billion m^3 and a total installed capacity of 23.3 GW. The relocated population for a single hydro power project reached more than 300,000, which is a significant impact and does not comply with the economic and social development status of the Mekong River Basin, therefore the development plan failed to obtain support of the countries along the Mekong River.

In 1994, the Mekong River Commission Secretariat (MRCS) proposed a *Run-of-river Hydro-power Development Scheme on Mekong Mainstream* (MRCs, 1994) in which 9 cascades were planned. The run-of-river scheme may greatly reduce the inundation loss and reduce a relocated population to 60,000. In addition, the installed capacity may reduce by 10 GW.

The latest development plan for the Mekong mainstream consists of 11 cascades, which, from upstream to downstream, are Pak Beng, Luang Prabang, Sayaburi, Pak Lay, Sanakham, Pakmong, Ban Koum, Phou Ngoy, Don Sahong, Stung Treng and Sambor respectively. They are developed by different developers by means of IPP (Independent Power Plant) and BOT. At present, the Xayaburi and Don Sahong HPPs have been

completed and put into operation in 2019. The Pak Beng, Pak Lay, and Luang Prabang HPPs have successfully passed the multilateral consultation mechanism while Sanakham and Phou Ngoy and other HPPs are prepared for submission for consultation.

Following the establishment of the Mekong River Commission (MRC) and based on the principle of sustainable development of the Mekong River in a constructive, cooperative and win-win manner, the new Mekong River Development Plan has been recognized by the governments of the four countries. This indicates that, although the countries have different attitudes towards the hydro-power development on the Mekong mainstream, they basically agree to '*develop, utilize, protect and manage the water resources of the Mekong River and other related resources in a sustainable way, protect, improve and manage the local environment and aquatic conditions, and maintain the ecological balance of the basin. ……promote the sub-regional development in a way of mutual assistance and cooperation among Mekong countries, enhance the overall benefits of the Mekong basin through cooperation, and take consistent actions to avoid risks*' (MRCs, 1995). Therefore, the development of projects on the mainstream should be based on 'constructive cooperation among countries' while the cooperation among countries is based on a multilateral consultation mechanism, such as taking Procedures for Notification, Prior Consultation and Agreement (referred to as PNPCA) as a main tool.

2 History of Consultation among Four Countries along the Mekong River

The multilateral consultation mechanism of the four countries along the Mekong River has a long history. Since the 1950s, a number of coordination agencies have been established, such as **Committee for Coordination of Investigations of the Lower Mekong Basin** （CCILMB） and **Interim Committee for Coordination of Investigations of the Lower Mekong Basin** （ICCILMB）. The consultation contents/components of these agencies are based on the development and utilization of water resources of Mekong River (Hu Yingjie, 2006) (including flood control, agricultural irrigation, water ecological protection, hydro-power development, etc.).

At the very beginning, the CCILMB put the flood control and hydro power development planning on the Mekong River under the guidance of the concept of Overall Development of the Basin. However, according to the **Mekong Charter**, the function of the Committee is very limited: It is limited to promoting and coordinating the planning and investigation of water resources development projects in the Lower Mekong Basin. By 1975, the Joint Statement on the Cooperative Principle signed by the four countries established the principle of '*reasonable and equitable use of the water resources of the Mekong River*'. It further stipulated that the projects on the mainstream and tributaries of the Mekong River shall be approved by the Committee before implementation.

However, with the increase of conflicts on the Indochina Peninsula, CCILMB was under impact. Vietnam and Cambodia suspended their participation in the meeting in the 1970s, and the Committee was essentially disintegrated. In May 1978, a separate ICCILMB (Jacobs, 1995, pp,135), a temporary and transitional organization, was established among Thailand, Vietnam, and Laos, which had no decision-making right as CCILMB, focused on such key projects as food, flood control and navigation and stopped the activities associated with the projects which are unable to be agreed upon. The member countries had its own right to develop the projects on the Mekong River within their own territory.

The multilateral consultation mechanism organized by the four countries for the development of the Mekong River has lasted for decades. However, due to the actual interests and political conflicts of each country, the multilateral consultation became

formalistic and cannot solve the issues. Until April 5, 1995, Laos, Thailand, Cambodia and Vietnam signed the AGREEMENT ON THE COOPERATION FOR THE SUSTAINABLE DEVELOPMENT OF THE MEKONG RIVER BASIN 5 APRIL 1995 (referred to as the MA1995), and established a new Lower Mekong River Basin Organization, the Mekong River Committee (MRC). Under the MRC, the Council, the Joint Committee (JC), and the MRC Secretariat (referred to as the MRCs) are established. The Council is the highest authority of the MRC and is responsible for the policy-making of water resources utilization and trans-basin water diversion, resolution of disputes and supervision of all activities of the MRC. The Council consists of four representatives from four member countries, and the member countries take the position of chairman of the MRC in turn for a period of one year (see Figure 1: Latest Organizational Chart of MRC). The MRCs is the technical and administrative department responsible for the daily affairs of the organization.

A similarity between the MRC and ICCILMB is that, while protecting and utilizing the water resources of the Mekong River Basin, they have agreed that cooperation shall be based on sovereign equality and territorial integrity, which means that the member countries have independent right to develop projects. Specifically, the development of tributaries of the Mekong River within the territory of a country only needs to notify other member countries while the development of the Mekong mainstream including trans-basin water diversion projects requires prior notification to MRC, and requires consultation and agreement before implementation. Compared with the mechanism of CCILMB and Interim Committee, the MA1995 respects the territorial sovereignty of the countries and plays the role of communication and coordination in an active manner. For the new Procedures for Notification, Prior Consultation and Agreement (referred to as PNPCA) in particular, it is recognized by all the countries concerned.

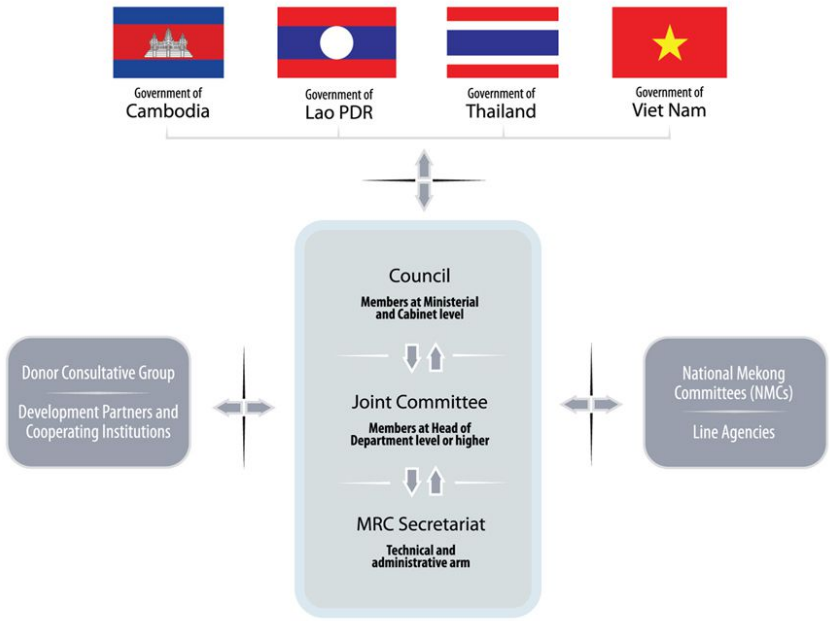

Figure 1 Latest Organizational Chart of the MRC

Source: Website of the MRC www.mrcmekong.org

'*Prior notification to MRC, and consultation and agreement before implementation*' is an important component of the well-known '*Procedures for Notification, Prior Consultation and Agreement* (November 2003)' (referred to as 'PNPCA') (MRC, 1995). To guide the implementation of the Procedures, the MRC exclusively formulated *Guidelines on Implementation of the Procedures for Notification, Prior Consultation and Agreement* (referred to as 'PNPCA Implementation Guidelines'). In addition, the MRC further formulated *Preliminary Design Guidance (PDG) for Proposed Mainstream Dams in the Lower Mekong Basin* (2009 edition, hereinafter referred to as the MRC PDG), which is the standard applied in the PNPCA consultation to assess the design of the mainstream dams on Mekong River and is one of the main supporting policies of the PNPCA.

Up to now, by means of the PNPCA consultation mechanisms, the MRC has completed or is carrying out the review of such hydro-power projects as Xayaburi, Don Sahong, Pak Beng and Luang Prabang.

3 Mechanism of the PNPCA Consultation

The PNPCA consultation mechanism has been implemented for the Xayaburi, Don Sahong, Pak Beng, and Luang Prabang HPPs, and played the role of '*Promoting Cooperation, Improving Overall Interests, and Avoiding Risks*'. Considering the technical data defects of the Xayaburi and Don Sahong HPPs and the disputes of the projects over the mainstream or tributaries, this paper takes the PBHPP (with the PNPCA fully implemented) as a case and introduces the implementation status of the PNPCA consultation at three levels from the organizational and functional arrangement, review scope and content, public consultation and stakeholders.

3.1 Organizational and functional arrangement

In addition to the MRC Council above, the main institutions that play the roles in the PNPCA consultation include the Joint Committee (JC), the Joint Committee Working Group (JCWG), the MRCs, and the National Mekong Committee (NMC). Strictly speaking, the NMC is not a subordinate institution of the MRC, but a ministerial or deputy ministerial institution established by the governments of the four countries along the Mekong River. It is mainly responsible for the liaison affairs between the government of the country and the MRC to ensure the delivery of documents in compliance with the MRC and convey the views of the MRC to the government of the country, but the institution has no decision-making authority.

The Joint Committee (JC) and its functions: In accordance with the provisions of Article 5.4.3 of the PNPCA, the JC is authorized to specifically implement the 'Prior Consultation' for the proposed project, establish the JCWG with the cooperation of the MRCs, perform the 'Prior Consultation' with regards to the use and development of water resources by each member country, and solve the difference in the consultation of member countries (MRC, 1995). The difference of member countries solved by the JC refers to diverging interpretations of technical issues, which means that the resolutions of the JC can be interpreted as technical issues. In contrast, as the highest council of the MRC, it deals with such disputes as whether the use of water resources is reasonable, fair and equitable, or whether the member countries take all necessary measures as required to mitigate the potential adverse effects on the Mekong River and other disputes.

The Joint Committee Working Group (JCWG) and its functions: In accordance with the provisions of Article 5.3.3 of the PNPCA, the JC may set up a working group in the 'Prior Consultation' of the proposed project to support the PNPCA, provide guidance to the MRCs, and organize a team of experts to make an independent evaluation for the proposed

project with a view to reaching a consensus or agreement. Therefore, the JCWG is not a permanent body.

The MRC Secretariat and its functions: In accordance with the provisions of the PNPCA Implementation Guidelines, the MRCs provides technical and administrative support for the PNPCA consultation, summarizes the review comments of the project and organizes administrative affairs under the guidance of the JCWG.

3.2 Scope, content and process

For the proposed projects with different purposes and scopes, corresponding procedures are arranged for the PNPCA consultation. For such cases as the use of water resources on the mainstream in the rainy season and the trans-basin water diversion between tributaries which have relatively small negative impacts and small extent, the sponsoring country only needs to make the 'Notification' rather than the 'Prior Consultation' with the MRC and other member countries.

However, for such cases as the trans-basin water diversion between the Mekong mainstream and other rivers, the use of water resources on the mainstream in the dry season, and the trans-basin water diversion which have significant negative impacts and large extent, not only the 'Notification' shall be made but also the Prior Consultation' with other member countries is required.

For different matters, the PNPCA process, methods, and evaluation items are not the same. See Table 1 and Figure 2 for details.

Table 1. PNPCA Process with Different Scope and Contents

	Case for Notification	**Case for Prior Consultation**
Scope	1. Use of water resources on Mekong mainstream in rainy season 2. Trans-basin water diversion between tributaries (incl. Tonle Sap Lake)	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/ Document	1. Feasibility study report 2. Project implementation plan 3. Progress schedule 4. All data	1. Feasibility study report 2. Project implementation plan 3. Progress schedule 4. All data 5. Other technical data and information
Procedure	1. The NMC of notification-sponsoring country delivers the documents of the proposed project to JC via the MRCs	1. The NMC of notification-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. 2. Other member countries assess and feedback their comments to JC through the Secretariat 3. If necessary, other member countries may request additional technical data and information; the JC will instruct the MRCs to establish a working group or expert team as necessary to carry out assessment and impact analysis on project development 4. The JC signed a resolution on the consensus reached. The sponsoring country shall not implement the project before other member countries have discussed and assessed the project; the JC shall record the comments and concerns of the member countries. 5. Refer to Figure 2: PNPCA Process Chart of PBHPP.

Due to complicated hydro-power system and a wide range of aspects, the components to be assessed for the hydro-power projects on the Mekong River during the PNPCA consultation are much more complicated. The JCWG or the expert team will follow the MRC PDG and refer to the relevant policy guidelines on Dam Safety of International Commission on Large Dams (ICOLD) and World Bank (WB). The feasibility and possible negative effects of hydro-power projects are assessed for such five aspects as Navigation, Fish Passage, Sediment Transport and Geo-morphology, Water Quality and Aquatic Ecology, Dam Safety, based upon which the specific improvement measures are proposed.

Figure 1. 'Prior Consultation' Chart of PBHPP on the Mekong River (MRCs, 2017)

3.3 Public consultation and stakeholders

The target of the Prior Consultation does not cover MRC, nor the governments of the countries involved and the developers of each cascade in the basin, but covers the government agencies, NGOs, academic and scientific research institutions of other countries in the Mekong River Basin, and the donor groups to MRC out of the Mekong region. Due to the sensitivity of the development of the Mekong mainstream, certain foreign political organizations or groups have also participated, such as the embassies of Australia, the United States, Japan.

4 Advantages of the PNPCA Consultation

The PNPCA consultation is an important achievement from dispute to cooperation among countries along the Mekong River. From the perspective of form, the PNPCA consultation for hydro-power development on the Mekong River has been recognized and established by all countries concerned, which is more standardized and reasonable than the original multilateral consultation mechanism, and the parties engaged in the consultation are more diverse and extensive. The MRC plays a more significant role in the consultation and cooperation of hydro-power development on the Mekong River.

From the perspective of achievements, the PNPCA consultation achievements are very rich, and many procedural communications have been completed, such as JC meetings, JCWG meetings, information sharing and consultation meetings between MCS, information sharing meetings of regional stakeholders, etc.; several reports and documents have been completed, such as *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*. More importantly, the PNPCA consultation facilitated two achievements: *Statement on Prior Consultation Process for Mekong Hydro-power Projects* (referred to as 'the Statement') issued by MRC, and *Joint Action Plan* formulated for the specific implementation of the prior consultation procedures for Mekong Hydro-power Projects.

The Statement and the Joint Action Plan mainly put forward requirements for project development from five aspects: navigation, fish passage, sediment transport and river morphology, water quality and aquatic ecology, and dam safety. Targeted comments are proposed according to the characteristics of different projects. Taking the PBHPP as an example, the main requirements of *the Statement* and *the Joint Action Plan* are as follows:

- Cooperate with upstream and downstream countries to conduct model test for flood forecast, and use appropriate operating rules and communication and coordination to minimize the local and trans-boundary impacts;
- Optimize the design related to sediment, improve the efficiency of sediment flushing, and minimize and mitigate the impacts of sedimentation;
- Improve the design of upstream and downstream fish passages;
- Deepen the assessment on trans-boundary cumulative socioeconomic impacts;
- Take measures to ensure the freedom of navigation;
- MRC's joint monitoring of the project is intended to facilitate the assessment of the project impacts on hydrology, sediment, water quality, aquatic ecosystem and fishery. The developers shall periodically share monitoring data and information updates with the MRC and accept the supervision of MRC.

In terms of effectiveness, the PNPCA consultation system ensures that all stakeholders listen to the opinions of all parties on the MRC platform, express their own interests, and

even participate in the formulation of the action plan and the supervision of the implementation of the plan.

5 Deficiency and Improvement of the PNPCA Consultation

There are still many deficiencies in the specific implementation of the PNPCA consultation, which are presented as follows:

(1) Diverse participants with different assessment standard and bases. The PNPCA consultation attracted many participants, but the differences are also presented in terms of the standards and bases of the PNPCA consultation. At present, the basic standard adopted in the PNPCA is the MRC PDG. However, the requirements of the MRC PDG are broad and introductory. For example, it requires reference to **International Best Practice** but does not give an explanation with regards to the definition of 'international best', which is a deficiency in terms of standardization and cannot guide developers on how to deal with critical issues. Therefore, the developers often use their own familiar technical standards and specifications for design of the projects, and the standards and bases of each cascade used are different.

Secondly, the MRCs is responsible for organizing the technical review of the project, but the technical reviewer of each project is not the same, which will further aggravate the different assessment consequences in the case of inconsistent standards and bases.

Finally, the MRC PDG in force was published in 2009, and the relevant contents are no longer suitable for current hydro-power development technology and social and economic development.

(2) Lacking of concern over project benefit sharing in the consultation mechanism. Hydro-power development on the Mekong River has entered a peak stage, and for a long time, the low-level infrastructure and the poor social and economic status in the Mekong River Basin are expected to be improved. However, the MRC as the organization responsible for the communication and coordination of hydro-power development on Mekong River, has not raised concern over and emphasized the benefit sharing of the project while formulating the PNPCA consultation mechanism, which may aggravate the difference of interests and negative attitudes towards hydro-power development among stakeholders.

(3) Lacking of effective funds guarantee in the consultation mechanism. At present, the PNPCA consultation is organized by the MRC but funded by hydro-power project developers. This funding model lacks long-term vision and cannot be effectively guaranteed. On one hand, the funding for the current PNPCA consultation is case-specific solution, and the funds need to be re-raised once other issues arise. It lacks the initiative and timeliness to solve the issues. On the other hand, the PNPCA consultation is a long-term undertaking. After prior consultation, the MRC will continue to monitor hydro-power development and take joint actions in accordance with the Statement and the Joint Action Plan. Therefore, the PNPCA consultation cannot continue if no subsequent funds guarantee is available.

(4) There is a wide range of stakeholders, but topics are easily politicized. In recent years, due to the participation of Chinese companies, the hydro-power development on the Mekong River has become a sensitive event in sensitive regions. The governments and organizations of Western countries such as the United States, Japan, Australia, and Germany have intervened in the PNPCA consultation in various forms. Some are the donors for the MRC such as the German Agency for International Cooperation (GIZ), the Japanese International Cooperation Agency (JICA), etc., some are the consultants, research institutions, and some are directly involved as political identities, such as embassies.

The topics in the PNPCA consultation are often politicized. For example, participants often exaggerate the impact of the operation of hydro-power projects on the upper reaches of the Mekong River (the Lancang River) in China on the downstream. In recent years, the government of China has established a number of dialogue mechanisms with countries along the Mekong River, in which Water Resources Cooperation is an important aspect. First, the Lancang-Mekong Water Resources Cooperation Center has been established as the main dialogue and communication party with the MRC. Secondly, Lancang-Mekong Water Resources Cooperation Information Sharing Platform has been established for the information release of hydro-power projects in the Lancang River Basin and for the timely notification of hydro-power operation status. The impact of China's hydro-power projects should be a technical issue rather than a political issue.

(5) China has close relations with the Mekong River (MR) but is absent from relevant consultations. Although the government of China and research institutions have established dialogue mechanism on water resources, they have rarely participated in the PNPCA consultation organized by the MRC for years. Without China's participation, the topics such as Impact of China's Hydro-power Projects and Joint Upstream and Downstream Regulations that frequently mention in the PNPCA consultation will not be fundamentally resolved.

As for above deficiencies, this paper proposes the following improvement measures:

(1) Establish the unified technical standards for hydro-power development of Mekong River Basin. Although the economic and social development of the four countries along the Mekong River is different, the development of the Mekong River is closely related to the development and benefits of the people of all countries. It is necessary to establish unified and complete hydro-power development technical standard in compliance with the features of the Mekong River to guide the developers in the development of Mekong hydropower projects, rather than simply refer to the Western standard system. In terms of technical review, the Secretariat shall organize a relatively stable and fixed professional team to ensure the consistency of review for projects.

Taking into account the associated features of the Mekong-Lancang River and the current status of hydro-power projects developed in China, Chinese research institutions shall be active to participate in the development of technical standards for Mekong hydro-power and the building of professional review teams.

(2) Carry out study on the benefit sharing mechanism of hydro-power development on the Mekong River ASAP. The MRC is the leader of Hydro-power Development Consultation Mechanism of the Mekong River, who has the conditions, responsibility and obligation to accelerate the study of the Benefit Sharing Mechanism for Hydro-power Development on the Mekong River, puts forward the requirements for benefit sharing for hydro-power development on the Mekong River, establishes the Benefit Sharing Fund for Hydro-power Development on the Mekong River, and promotes benefit sharing among countries, regions, and groups in hydro-power development, and uses the Benefit Sharing Fund to develop infrastructure, social service facilities, poverty alleviation, ethnic minority development, and capacity building in the Mekong River Basin, so as to maximize the social benefits of project development.

(3) Establish a fund guarantee plan for the PNPCA consultation. In view of the fact that the PNPCA consultation is organized with a process, but there is no fund guarantee, it is recommended to levy/collect working funds for the PNPCA consultation package from developers of the proposed projects on Mekong River instead of case-specific solution, and the funds shall cover prior consultation until the Joint Action of the project. After the collection of working funds, the Secretariat of the MRC shall formulate the detailed

PNPCA consultation plan and funds guarantee plan to ensure the smooth carrying out of the PNPCA consultation in an orderly manner.

(4)The PNPCA consultation shall take the matter on its merits and reduce politicization. Hydro-power development on the Mekong River is an important matter related to regional development and people's happiness, and hydro-power development is a highly professional technical work. The MRC should give full play to the advantages of consultation in organizing the PNPCA consultation, discuss matter on its merits and discuss technology itself. As for the Impact of China's Hydro-power Projects and other similar topics, the data and information should be obtained from official communication channels (such as the Lancang-Mekong Water Resources Cooperation Center), and dialogue and communication should be directly made with relevant agencies, so as to avoid turning hydro-power development on Mekong River into a geopolitical battleground.

(5) The main body of PNPCA negotiation should be expanded within the Mekong River Basin. The development of the Mekong River directly affects the countries in the Mekong River basin. However, in the consultation process, countries in the region such as China and Myanmar's governments, non-governmental organizations, and stakeholders have little participation, while countries outside the region are very active in participation, including system building, capacity building, development planning, project development, etc. China, Myanmar are very close to the downstream countries. It is necessary to increase the participation of China and Myanmar in the development, from the government level, the upper Lancang River project level, the scientific research institution level, and the Chinese developer level of the Mekong project. The participation of China and Myanmar can reduce the misunderstandings and losses caused by information asymmetry, and expand the social and economic benefits of joint development, consultation and construction and sharing.

At present, China is already building the Lancang-Mekong cooperation mechanism, and it should take this opportunity to actively participate in the PNPCA negotiation, take the initiative to answer and clarify doubts about the so-called 'Chinese power plant impact', and actively respond to proposals such as 'upstream and downstream joint dispatch', and integrate into the Mekong River and the development of riparian countries.

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