

Resettlement and Benefit-Sharing Mode in Lao Nam Ou River Development

Mode de réinstallation et de partage des avantages dans l'aménagement de la rivière Nam Ou au Laos

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Abstract. Lao Nam Ou River Development is the priority project funded by Chinese enterprises in Belt and Road Initiative (based on Consultant, Contribution and Shared Benefit) which is integrally basin managed, planned and designed, constructed, commercially operated according to Chinese standards. Resettlement and Rehabilitation in Nam Ou Development were carried out on the basis of Benefit-sharing theory and principle, starting from planning and design, and finally realized win-win of project and social development in virtue of public participation. The thesis elaborated the benefit-sharing mode of Nam Ou resettlement mainly from avoiding and reducing resettlement, resettlement impact, public participation and sharing manners.

Résumé. Lao Nam Ou River Development est le projet prioritaire financé par les entreprises chinoises dans le cadre de l'initiative Belt and Road (basée sur un consultant, une contribution et un bénéfice partagé) qui est intégralement géré, planifié et conçu, construit, exploité commercialement selon les normes chinoises. La réinstallation et la réhabilitation dans le cadre du développement de Nam Ou ont été réalisées sur la base de la théorie et du principe du partage des avantages, en commençant par la planification et la conception, et en réalisant finalement un projet gagnant-gagnant et un développement social en vertu de la participation publique. La thèse a élaboré le mode de partage des avantages de la réinstallation de Nam Ou, principalement en évitant et en réduisant la réinstallation, l'impact de la réinstallation, la participation du public et les modes de partage.

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1 Introduction

Nam Ou River is the main tributary in left bank of Mekong River which is 475km long and has a catchment area of 26,000km², 1,700MW potential hydropower resource to be developed. In 2007, Government of Laos signed the agreement with Chinese enterprise to build and manage Nam Ou river with the theory of FULL LIFE CYCLE which means Integral Basin Management, Integral Planning and Design, Integral Construction, Integral Commercial Operation for Nam Ou Development. Up to August, 2019, Nam Ou River has been developed as 7 cascades in 1 reservoir by 2 phases, in which the first phase including Nam Ou 2, Nam Ou 5 and Nam Ou 6 has been built and commercially operated and the second phase is still being constructed.

From 2008 to 2015, the developer, together with Lao Resettlement Authority, has carried out the detailed site survey and research on project impact, impact analysis, resettlement planning and design by public participation, and finished ESIA and Resettlement Action Plan after consulting affected people's willingness and comments. In terms of the research, Nam Ou development has 145km² land acquisition area and 342km reservoir backwater which impact 61 villages, 11570 people, 798ha farmland and 3260ha forestland. Lao government reviewed, approved, and issued the Certificate for Environmental and Social Management Plan and RAP. Meanwhile, the government signed Concession Agreement, which is a contract between the government and developer and in which the government authorizes the developer to build, operate and transfer Nam Ou project to Laos under a certain operation and benefit-sharing mode and period for clearly defining rights and obligations, benefit-sharing. After that, the developer and authorities set up the resettlement working units and implemented Nam Ou resettlement according to the approved RAP.

In accordance with spirit of Belt and Road Initiative, Chinese enterprise established the basic principle of extensive consultation, joint contribution and shared benefits, resettlement as the priority and Benefit-sharing from basin planning, project design to construction in Nam Ou development. This paper elaborated the benefit-sharing mode of Nam Ou resettlement mainly from avoiding and reducing resettlement, resettlement impact, public participation and sharing manners.

2 Elaboration of Issues and Relevant Research

Regarding the scope of benefit sharing, scholars usually refer to the sharing of economic benefits or material benefits. For example, Kong Lingqiang and other scholars (Kong Lingqiang, et al 2007) analysed four mechanisms of benefit sharing for hydropower resettlement, including sharing of hydropower taxes and fees, establishment of resettlement development fund, preferential electricity price for affected people, and long-term compensation for affected people. These proposals are financial arrangements put forward under the condition that resettlement has already taken place, but the economic and social benefits have been ignored, such as land, employment and other resources. Quan Hongyun (2014) believes that 'benefit sharing refers to a joint role played by the government, the market and citizens, ... to share the development results of reform and opening up, ... which include both material and non-material results' (P. 82). This concept is basically the same as the starting point of the *Guideline on Effectively Conducting Benefit Sharing of Hydropower Development* issued by 6 departments including China's National Development and Reform Commission. The latter holds that the content of benefit sharing should include improving resettlement compensation and subsidies, respecting local folkway, folk customs and religious culture, improving the living quality of resettlement villages and towns, strengthening capacity-building and employment promotion, etc. Both emphasized that benefit sharing should combine material and non-material, economic and social benefits.

Many policies and academic research have expounded in literatures the benefit-sharing mechanism after relocation. For example, the *Guideline on Improving the Follow-Up Support Policy for Large- and Medium-sized Reservoir Resettlement defines the target of support as 'Relocated People'*; Duping Hydropower Station takes the compensation fund for submerged land as the project investment, and shares the power generation benefits of the power station with reservoir resettlement (Yu Qingnian 2014, P. 69); Yang Wenjian, Duan Yuefang (2003), Zhu Wenlong and other scholars have all discussed the benefit sharing study of reservoir resettlement in the context of 'resettlement and rehabilitation', including the method of benefit sharing (Zhu Wenlong and Shi Guoqing 1995, P. 58), and the new pattern of 'Benefit sharing + Self-employment'. So, can benefit sharing be expanded to 'Avoiding or Minimizing Resettlement' and share the social and economic development benefits brought about by the project construction? This paper holds that, as stated in OP4.12 of the World Bank, 'Involuntary resettlement should be avoided where feasible, or minimized, exploring all viable alternative project designs', 'Avoiding or Minimizing Resettlement' can increase the beneficiary groups of the project, minimize and mitigate resettlement impact, maximize the benefits of project development, and effectively promote benefit sharing.

Scholars usually think that the government should draw some funds from the power generation benefits and electricity sales taxes as resettlement development funds or long-term compensation to enable affected people to share the benefits. However, under the circumstance of 'the expression mechanism for benefits is not perfect', it is doubtful whether this is the real hope of affected people and the only benefit. As pointed out by scholars such as Yu Qingnian (2014) and Chen Xiaoqing (2007), 'the expression mechanism for benefits is not perfect' is an obstacle to resettlement benefit sharing. Public participation plays a decisive role in the acquisition of resettlement benefits. Public participation not only helps affected people to accurately express their benefit appeal, but also is the premise of benefit sharing—citizens, government and market play a joint role and share the development results.

For Nam Ou River resettlement, based on the above issues, the discussion is focusing on the idea of minimizing resettlement as well as the basis, measures and ways of resettlement benefit sharing, and the mode of resettlement benefit sharing is expounded.

3 Avoiding and Minimizing Resettlement: Basic Concept of Benefit Sharing

Maximizing the resettlement benefit sharing is, first of all, to maximize the beneficiary population and minimize the resettlement impact. This is the basic concept of benefit sharing. In 1995, the U.S. company R.W. Beck carried out development planning of Nam Ou River Basin for the first time. It planned to adopt a 2-cascade development plan (See Fig.1 for details) to build two large-scale high-dam reservoirs to develop the water resources of Nam Ou River, with a total installed capacity of 1500MW, but at the same time, the flooded population that need to be relocated reached 57,000 (about 1.2% of Laos' total population in that year)—the resettlement impact is huge. The feasibility of developing a hydropower project at such a huge social and resettlement cost is doubtful, and it is difficult to ensure that the affected people share the benefits. The Lao government finally did not approve the plan. After accepting the entrustment of the Lao government, Chinese enterprises carried out a detailed baseline survey, including socio-economy, potential displaced population, sensitive objects, etc., organized public participation, released project information on the one hand and collected opinions and information from various stakeholders on the other hand through on-site surveys, symposiums, community consultations, etc. After fully analysing the distribution of important sensitive objects, towns and villages, they chose the development plan reasonably:



Fig. 1. 2-Cascade Development Plan.



Fig. 2. 7-Cascade Development Plan.

- Abandoning the 2-cascade large scale high-dam reservoir plan and adopting the 7-cascade low head development plan (See Fig.2 for details), with the installed capacity reduced from 1500MW to 1272MW;
- Adopting the runoff development plan to reduce project inundation, thus reducing the displaced population from 57,000 to 11,000 (See Table 1 for details) and preventing 46,000 people from leaving their homes.
- In addition to reducing direct resettlement, the plan avoids the impact on historic towns, important transportation facilities and a large amount of farmland.

Avoiding and minimizing resettlement: most local residents can stay in their homeland—free from the impact of relocation and marginalization, and meanwhile, can share the economic and social benefits brought about by the project development, including the improvement of public facilities and public services, the increase of employment opportunities and incomes, and community development, allowing important resources to be preserved and continue to generate benefits, with the total amount of benefit sharing increased.

Table 1. Optimal Development Plan for Nam Ou River to Avoid and Minimize Resettlement.

S/N	Item	Unit	R. W. Beck's Plan	Chinese Company's Plan
1	Villages affected	Nr.	236	61

2	Population affected	Person	57,000	11,570
3	Counties affected	Nr.	6	0
4	Resettlement cost	USD 1,000	427,500	144,500

4 Assessment of Resettlement Impact: Basis of Benefit Sharing

After avoiding and minimizing resettlement, Nam Ou River Project carried out an assessment of resettlement impact, including identifying the inevitable displaced target people to be affected and assessing the kind and the degree of impact they will suffer.

4.1 Identification of the affected objects

During the preparation phase, Nam Ou River Project analysed the affected objects as per Chinese and Lao methods separately but found that the results were quite different. Laos uses the normal water level (NWL in brief) to define the inundation area of the reservoir and uses the public consultation method to define the buffer zone of a reservoir (impact) so as to identify the affected objects. China determines the inundation treatment scope according to the determined design flood standard of inundation treatment (for example, the flood-control standard for cultivated land and garden plot is 5 years' return period, and that for residential areas is 20 years' return period), and according to the corresponding backwater enveloping curve of design flood of different objects; At the same time, the area where the stability of the reservoir bank is affected due to reservoir impoundment is defined as the reservoir impact area, so as to identify the affected object (Yu Haomiao et al 2013, p. 69). Comparing the two methods, it can be found that the Lao method does not consider the impact of flood backwater and the target population in geological unstable areas, and the affected population identified is much less than that by the Chinese method (See Fig.3 for details. The white line is the boundary line of the inundation treatment range designed by the Chinese method, and the net line is the boundary line of the inundation treatment range designed by the Lao method).

According to the actual hydrological regime and topographic conditions of Nam Ou River, determining the scope of inundation impact and identify the affected objects by simply using normal water level and public consultation lacks scientific basis, and flood inundation risk is relatively high. In order to accurately identify the affected objects, Nam Ou River Project has carried out the following work:

- Hydrological and sediment engineers have set up more than ten hydrological stations throughout the basin to observe hydrology and sediment, and collect information on water level, flow and sediment transportation;

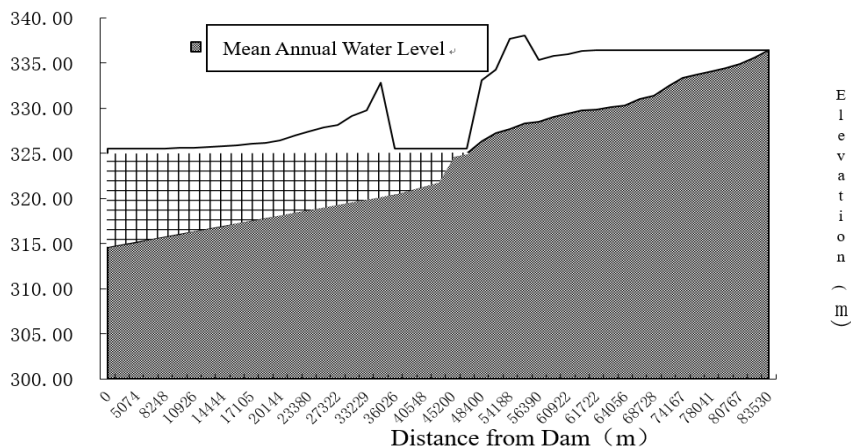


Fig.3. Inundation Treatment Range of Nam Ou River Reservoir Area with the Methods of China and Laos.

- Mapping engineers carried out on-site survey of Nam Ou River to form a 1: 5000 topographic map of land utilization map;
- Geological engineers conducted geological investigation along Nam Ou River to collect the bank stability information;
- On the basis of finishing collecting the above information, resettlement experts established a calculation model for the land acquisition area based on the Chinese method, and carried out the baseline survey, including socio-economic surveys and Inventory-of-Lost (IOL) survey.
- According to the actual situation in Laos, resettlement experts have organized public consultation on the project development, land acquisition, flood-control standard, and IOL for many times, listened to public opinions and expressions of interests, and finally determined the affected people.

4.2 Impact analysis

Resettlement impact of Nam Ou River Project is analysed based on the content and degree separately, and the specific methods include socio-economic survey, IOL survey, public consultation, etc. The IOL survey of Nam Ou River land acquisition is a joint working group formed by the provincial resettlement committee established by the Lao government in accordance with relevant laws and regulations of Lao government and in combination with Chinese methods. Developers, officials of relevant government agencies at all levels, and resettlement representatives participate in the joint work to identify resettlement targets and investigated the content of impact.

After investigation and confirmation, the content of the resettlement impact of Nam Ou River Project includes the main sources of income (especially the production and living of the vulnerable groups), land, food, housing, family property, business opportunities for self-employed households, community and public facilities, religious and cultural facilities, etc. Some of these impacts are direct property losses, some are losses of long-term development opportunities, and some are spiritual or cultural impacts.

In identifying the impact degree, the distinction is mainly based on the content of impact. In terms of material-object losses, the impact degree (d) of the resettlement object, community and counties/districts is determined after comprehensive analysis based on the results of the IOL survey (L) and in combination with the family resources of affected people,

the overall resources of relevant communities as well as the overall resources of relevant counties/districts (T), namely:

$$d = \frac{L}{T} \times 100\% \quad (1)$$

Where:

- d refers to the impact degree of resettlement;
- L refers to the actual loss of resettlement, communities or relevant counties/districts;
- T refers to the family resources of affected people, the overall resources of communities and the overall resources of counties/districts.

The material-object impact is identified and classified according to three levels: minor impact ($d < 20\%$), moderate impact ($20\% \leq d < 50\%$), and severe impact ($d \geq 50\%$), and the following mitigation measures are targeted to compensate and resettle people, and provide development plans for communities and relevant counties and districts. For the spiritual and cultural impacts, the main method is to listen to, by way of public consultation, the opinions of the affected people and analyse them.

In addition to the direct impacts obtained through the above-mentioned investigation, the potential and indirect impacts have also been analysed and studied through public consultation. This paper takes the following items as examples:

- Property losses are often greater than the direct losses investigated

Take cultivated land as an example, if the loss of cultivated land is calculated conventionally, it is usually 6 to 7 times the average market price of the output in the previous 4 years (Prime Minister's Office of Lao PDR 2005). However, the surrounding terrain of Nam Ou River reservoir area is steep and cultivated land resources are very scarce, so it is difficult to allocate a large number of lands according to the resettlement method of 'Land for Land'; In addition, the labour skills and level of Lao labourers are very low. After land allocation, it is difficult for them to restore their original labour output in a short time without follow-up auxiliary measures.

- The labour capacity of affected people changes before & after the project

After resettlement, the surrounding environment changes greatly, for example, the production capacity of land (traditional agriculture), the objects of labour production (other agriculture) and even the labour forms (non-agriculture) changes. In the great changes, the ability of affected people is often not enough to cope with.

- Custom, traditional, informal rights and interests are affected

The source of income for resettlement is often complicated, with habitual and informal income accounting for a large proportion of household income, such as fishing income, non-timber forest products (NTFP), etc. These revenues are not recognized in impact surveys and impact assessments and are often difficult to sustain after the completion of projects.

- The production and life of women change before & after the project

Under the traditional labour relations, women play an important role, for example, they are the main contributors in family labour and agricultural production, and their family status is relatively high. In the native community, women often use gravity water diversion system for outdoor bathing, which has become a cultural tradition. After resettlement, the above situation tends to change—such as changes in family labour objects or labour forms—and women do not have an advantage. After relocation and settlement, the floating population in the community will increase dramatically and the cultural tradition of outdoor bathing cannot be preserved.

- Public facilities and services cannot meet the growing demand

After resettlement, the original public facilities and public services will increasingly be unable to meet the demand due to environmental changes, including population increase and new diseases.

5 Policies and Practices: Measures of Benefit Sharing

Laos is one of the least developed countries in the world. According to the research of Yoko Yamaguchi (2008), a Japanese scholar, ‘for Laos, hydropower is not only the power supply, but also plays an important role in stabilizing finance ... Laos is a country with a weak financial foundation that cannot be maintained without aid (fiscal revenue is far less than fiscal expenditure)’ (p. 23). In 2018, Laos' GDP per capita increased to USD 2,568 (5 times more than the GDP per capita of USD 511 in 2005), but judging from the economic structure of its growth, the growth of GDP and GDP per capita was mainly driven by investment in power infrastructure. In fact, since 2000, the foreign aid that Laos receives each year accounts for 2% to 3% of its finance and the balance of its foreign debt is over 70%.

Direct sharing of economic returns from project development by resettlement is also not in line with the actual situation of Chinese enterprises investing in hydropower in Laos. The operating period of the projects invested and operated by Chinese enterprises in Laos is only 25 to 30 years. On the one hand, they should allow the Lao government to exchange resources for equity; on the other hand, they should bear the construction risks and operational risks of the project, such as soaring construction costs and difficulties in recovering profits from the project. Therefore, the formal formulation of policies to allow affected people to share project returns will seriously increase the burden of project development.

On the basis of summing up the experience of other Chinese enterprises in Laos and combining with the actual situation of the project, Nam Ou River Project puts forward benefit sharing measures for Nam Ou River resettlement, mainly including the following:

5.1 Taking the Concession Agreement (CA) negotiation as an opportunity to stipulate the interests of the government and affected people

Laos is an agricultural country, and land is the most relevant interest in the resettlement process. Therefore, how to effectively arrange land for people is very important to Laos. In order to realize benefit sharing in project development, CA, as the main development agreement and benefit distribution mechanism of the project, is very important for clarifying the rights and interests of the government as well as the relationship between the government rights and interests and affected people's interests.

The CA of Nam Ou River Project stipulates the rights and interests enjoyed by the government, for example, the government can levy taxes and related charges, including corporate income tax, individual income tax, customs duty, resource tax or resource fee, etc. Correspondingly, after paying the resource fee, the project developer obtains corresponding rights, and collective or state-owned land resources from the government, which can be transferred to the affected people for livelihood restoration, relocation and settlement as well as community reconstruction, so as to enable affected people to share the benefits.

5.2 Adhering to the principle of ‘Land for Land’, improving the standard by changing ‘compensation’ to ‘sustainable development’

‘Land for Land’ is one of the main principles for resettlement in Laos. Nam Ou River Project abides by this principle. After obtaining the land allocated by the government, it arranges a large amount of funds for the development and consolidation of the land to provide the affected people who have lost the land with land not inferior to the original level (both in quantity and quality).

In addition, after drawing lessons from other project failures—the compensation (replacement cost) for the loss of assets (entitlement) alone is not enough to ensure the livelihood recovery of resettlement—Nam Ou River Project proposed sustainable

development measures, i.e. within 5 years of the recovery of land productivity, the developer provides development subsidy funds to affected people, which is included in the project development cost. The formula for calculating the subsidy is:

$$f = t \times a \times p \times 5 \quad (2)$$

Where, f refers to the amount of Resettlement Development Subsidy;

- t refers to the weight of rice produced per hectare of land (tons/hectare per year);
- a refers to the area of cultivated land (hectares) lost by affected people;
- p refers to the actual market price of rice (USD/ton);
- 5 refers to the land productivity recovery period of 5 years.

Resettlement Development Subsidy Fund not only enables affected people to survive the fragile period of livelihood recovery, and ‘more-production-brings-more-income’ encourages affected people to develop agricultural production, making the agricultural production and planting results in the resettlement areas far exceed the development goals.

If some people wish to resettle themselves, Nam Ou River Project will calculate the compensation according to the standards stipulated in Technical Guidelines on Compensation and Resettlement in Development Projects and compensate them in cash.

5.3 Providing appropriate employment posts, especially for women, to improve women's status and sense of participation

Providing employment posts is an important way to share benefits, not compensation for losses. According to statistics, the policy of providing employment opportunities to local labour force has been implemented ever since the preparation of Nam Ou River Project in 2011. Up to now, the number of local employment posts of various types directly provided by Nam Ou River Project has exceeded 3,786 (Employee localization rate exceeds 50%) and is still increasing. Meanwhile, there are countless local jobs indirectly driven by the construction of the project, for example, engineering construction and subcontracting, banking and finance, catering, tourism and accommodation, commodity retailing, etc.

In terms of employment posts, Nam Ou River Project focuses on and provides training and recruitment for women, and has set up posts dominated by women such as logistics service posts and public relations posts. Among them, the logistics service post has a low complexity. Affected people who are willing to provide labour can take up their posts through simple training. Their main work includes company canteen service, public area sanitation cleaning service, etc. The work of the public relations post is more complicated, which requires the workers to have certain knowledge background and local public relations, and only after comprehensive training can workers take up their posts. Both of the average labour incomes (USD 166/month and USD 500–650/month respectively) of the above two posts are far higher than the farming incomes (about USD 33/month) before the project development, which not only helps to improve the social status and family status of women, but also helps to improve women's sense of participation in project development.

5.4 Strengthening skills training and changing ‘single agricultural planting’ to ‘simultaneous multi-industrial development’

Nam Ou River Project provides skills training and the second, third options for and resettlement besides ‘single agricultural planting’. For example, the livelihood restoration program for resettlement of Nam Ou cascade 6 includes tea planting and rubber planting.

Nam Ou Cascade 6 Project is located at the upper courses of the whole river basin, with steep terrain. The high altitude and climate resources are very suitable for planting crops such

as tea and rubber. Prior to the construction of the project, many enterprises had invested in planting rubber, tea and other cash crops in the surrounding areas of the project. As the climate resources fit the above cash crops, the benefits are quite abundant. For this reason, and after performing investigation of climate resources and soil, analysis and planning of industrial models, and training of the most critical production skills, tea and rubber planting have become the second and third options for livelihood recovery.

Taking tea planting as an example, each displaced family (6 members) is allocated 1 hectare of garden plot with an average yield ranging from 1500 kg to 3000 kg. In 2018, the Lao tea market price was about USD 7.50/kg. After deducting the seedling cost of USD 7,500/ha and material & labor cost of USD 1,500/hectare, each family can obtain a net income of more than USD 9,750 (seedlings need to be provided by the developer) after entering the tea harvest period (after the three-year seedling period ends). As the brand value of Lao tea increases and the price of tea continues to increase, the income level of affected people will continue to rise.

Production skill training for displaced people is a prerequisite for simultaneous multi-industrial development, which can improve the production skills, allow profit sharing from local employment directly, and reduce the risk of large inflow of foreign labor and workers.

5.5 Focusing on centralized relocation and resettlement to improve the living standards, supported by self-resettlement to respect the will of displaced people.

Centralized relocation means that after a clear plan is formed through public consultation, the government allocates land in a unified way and carries out restoration and reconstruction as per unified standards and functions. Self-resettlement means, in the case that there are claims by displaced people, giving direct compensation to their property and allowing them to arrange by themselves.

For relocation, Nam Ou River Project mainly adopts centralized relocation and self-resettlement based on fully soliciting the wishes of displaced people and the specific conditions such as ethnic, religious, cultural and family groups in the community. Communities with abundant reserve resources generally tend to get resettled nearby and backward, only those with no reserve resources and no sustainable livelihood will adopt the method of remote relocation.

The resettlement area under centralized resettlement is far superior to the original community in terms of both resettlement standard and function. For example, the housing structures in the resettlement area are all brick-concrete structure—safe, spacious and bright, while the housing in the original community is basically civil structure—unstable in structure and low and dim. Functionally, the resettlement area has newly added public-affair discussion area, health and medical service room, expanded temples and schools, facilitating the way for displaced people to participate in public affairs, improving the health management level, and enriching the religious and cultural education of displaced people.

In addition, bathing rooms have been set up in the resettlement houses, so that women do not need to bathe in public areas or outdoors, which takes care of women's privacy and safety and ensures that women can also share the benefits of project development.

5.6 Establishing Reservoir Development Fund (RDF) to protect the environment and benefit people

In addition to the above-mentioned resettlement measures, Nam Ou River Project has also set up a RDF in CA, which is included in the project investment cost by the developer, with an amount of about 15% of the total resettlement cost. The RDF is mainly used for forest

survey, compensation for timber cutting, forest management and wildlife protection in the surrounding areas of the reservoir, as well as to solve the impact of water quality, bank instability and other human activities in the reservoir area, and provide corresponding education and training. Through the establishment of the RDF, people are ensured to share the benefits brought about by the development of the project, and the habitual informal rights and interests of affected people (such as forest product collection, etc.) are partially restored.

In addition, for the use of the waters of the reservoir, Nam Ou River Project CA stipulates that the use and management of the waters is not owned by the developer of Nam Ou River Project, and that the government can endow the people with the right to use the reservoir. People can not only continue to use the waters to fish for supplementary household income, but also change the local climate after the formation of the reservoir, which facilitates the artificial breeding in the reservoir. The benefits are very obvious.

In order to ensure that affected people benefit from the project, Nam Ou River Project has put forward self-examination indicators for the resettlement effect, that is, the income of affected people increasing by 20% in two years, 40% in four years, 60% in six years, 80% in eight years and 100% in ten years. The goals will be assessed in future resettlement monitoring.

6 Public Participation: Ways of Benefit Sharing

When Chinese enterprises develop hydropower projects in China, they often carry out benefit sharing work from top down through implementing policies and complying with the mode determined by the system. For example, six departments including China's National Development and Reform Commission jointly issued the Guideline on Effectively Conducting Benefit Sharing of Hydropower Development, which require improving the livable quality of resettlement villages and towns, promoting the industrial development and upgrading in the reservoir area, and improving the compensation and subsidies for resettlement. Whereas in foreign countries, the mode of public participation is from bottom up, starting from the direct demands of affected people, and then formulating corresponding benefit sharing mechanism. The resettlement under this mode is easier to achieve social harmony and sustainable development.

Public participation runs through the whole process of Nam Ou River resettlement and is also the main way for Nam Ou River Project to realize benefit sharing:

First of all, Nam Ou River Project has carried out a large amount of project information disclosure work, such as releasing project information to residents along the bank in the project identification phase, and disclosing important project information including the NWL, possible flood situation, resettlement targets, resettlement plan and measures in the project preparation phase, especially in the planning, design and implementation phase. The information disclosure work, organized by local government organizations at all levels, is attended by the developer and technical units, as well as a wide range of local residents' representatives. The information is as detailed and accurate as possible. The forms of information disclosure include radio, television, on-site seminars and the internet.

Secondly, after the information is disclosed, the wishes and thoughts of affected people are collected as much as possible. Information disclosure is the first step. Nam Ou River Project attaches great importance to the collection of people's wishes, especially in important resettlement plans and measures, carefully collect attitude from different perspectives and carry out exchanges and communication with them. The collection of people's wishes is organized by the developer, attended by representatives of government officials and affected people. The collection is mainly conducted by means of questionnaires, information forms, etc.

Finally, important resettlement decisions are made jointly by affected people, the developer and the government. Decisions involving the vital interests of resettlement—the relocation way to be adopted, remote relocation or nearby relocation, agricultural resettlement or diversified resettlement, centralized resettlement or self-resettlement, etc.—are made together with displaced people based on multiple proposals proposed by the developer. Joint decision-making is organized by government departments, with the developer and affected people participating in the decision-making, and the basis for the decision-making is a common signature.

Through the above public participation, people's benefit will be shared fairly, openly and impartially.

7 Deficiencies and Suggestions

In spite of this, there are still deficiencies in the resettlement of Nam Ou River Project, and there is still much room for development in benefit sharing. This paper puts forward the following deficiencies and suggestions for discussion and research:

- Establish and improve the benefit sharing mechanism at the national level

In recent years, the economy and society of Laos have been greatly developed, and the development in the industrial field, especially in the energy field, has reached an unprecedented height. The hydropower development in Laos not only enables Laos to have the richest clean energy in the region, but also has achieved the construction goal of 'Southeast Asian Battery' after selling electricity to Vietnam, Cambodia and Thailand. Although the economic structure of Laos still needs to be adjusted and the per capita income level still needs to be improved, from the perspective of long-term development, Laos should establish and improve the benefit sharing mechanism for hydropower development not only from bottom up, but also from top down, i.e. from the national level, to help people get rid of poverty quickly and realize sustainable development.

First of all, Lao's migration compensation standard is relatively low, and resettlement-related laws should be revised and raised to a reasonable market price level.

Secondly, in addition to compensation, the resettlement laws should clearly stipulate the rights and interests of affected people in the development of projects;

Thirdly, the proportion and form of benefit sharing as well as the negotiation can be stipulated in CA by following the former practices of negotiation. For example, referring to 'requiring developers to allocate a certain proportion of tax revenue from power generation benefits to affected people as development funds, affected people enjoying preferential electricity prices, etc' mentioned in academic circles, developers can extend the concession period correspondingly.

- Under the mode of public participation, affected people's cognitive and action abilities should be improved.

The prerequisite for public participation is that affected people have sufficient knowledge and action capability to ensure that they can rationally participate in discussions and make correct decisions. At present, Lao affected people have relatively low education level and lack of action capability.

Firstly, the capability of affected people to participate in decision-making is insufficient. Their attitudes change before & after decision-making. Uncertainty affects the results of resettlement.

Secondly, the effect of affected people's production skill training is not effective. Due to their low education level, the training in non-agricultural production and other agricultural fields they receive cannot meet expectations, resulting in low output in production practice.

Widely improving the education level of the Lao people is the foundation. The first consideration of Nam Ou River Project in resettlement is to improve the level of educational

facilities and provide donations to teachers to encourage them to devote themselves to basic education. In addition, Nam Ou River Project has increased its investment in the production skill training of affected people and has repeatedly trained affected people to ensure that their livelihood recovery meets expectations.

- Superior resettlement conditions reduce the labor enthusiasm of affected people

Nam Ou River Project has specially set up a Resettlement Development Grant and a Transitional-Period Resettlement Subsidy in the resettlement process. In the implementation process, the subsidy is paid in full from the perspective of resettlement. Some people are unwilling to continue to engage in productive activities because the subsidy exceeds the original family income level. After passing the stipulated transitional period for resettlement, they cannot achieve the goal of livelihood recovery or even return to poverty due to the waste of land and labor skills.

The phenomenon of returning to poverty due to giving up labor has occurred frequently in Nam Ou River Project and projects developed by other Chinese enterprises, which has attracted the attention of the academic community and the Lao government, and this issue is under discussion.

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