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Recommendation of the JICA's Ad-hoc Committee on Development and the Environment in the Mekong River Basin

1. Introduction

The Lower Mekong Basin, except Northeast Thailand, has suffered from frequent droughts and floods, forest depletion, saltwater intrusion, deterioration of terrestrial water environment and other problems. In addition, several other environmental problems such as depletion of natural resources, urban overpopulation, resettlement of refugees, relocation of inhabitants, etc. have arisen since these thirty or forty years ago. Meanwhile, the population is growing rapidly. Therefore, it is important and necessary to protect people from such calamities, and to promote development, keeping good balance between development and the environment, and to support their rise from poverty.

In early 1996, the JICA (the Japanese International Cooperation Agency) which is under the Japanese Foreign Ministry established. an ad-hoc committee consisting of eight experts (on agriculture, forestry, fishery, hydroelectric generation, wild birds, culture and relics, social infrastructure and human development) in order to formulate new strategies and approaches to promote further dynamic cooperation with the aim to achieve the sustainable development emphasizing the environmental conservation in the Greater Mekong Sub-region(which covered the Yunnan province of China, Myanmar, Laos, Thailand, Cambodia and Viet Nam).

Thus, the newly organized Committee initiated studies in early 1997, with quite a different angle from those which had so far been mainly oriented to expedite the so-called "development" without paying much attention to the environmental impacts in the Mekong river basin. Discussions continued until the middle of 1998 among the Committee members since then, and, as a result, the Committee published a report. The full text of the report was written in the Japanese language only, but its Executive Summary was printed in English.

However, quite unfortunately, after the completion of the report, due to the newly arisen pressing needs to set up another national strategy, the JICA could not continue its efforts to sufficiently disseminate the contents of the study report and had to be satisfied only by distributing the report among very limited number of people concerned so that the variable opinion and conclusion contained in the report have absolutely remained unknown to not only the Japanese people in general, but also the majority of the riparian governments' officials and local people as well as to the people in the developed countries, the international organizations and the NGOs.

The purpose of this presentation is, therefore, to introduce the gist of the important parts of the Committee's report, which may have given a certain impact to the Japanese government policy in rendering technical and financial assistances to the countries in the Mekong river basin, particularly to Laos and Cambodia.

2. The Committee Report

The study of the Committee was carried out in two phases. The first phase was carried out in Tokyo to review the basin as a whole, based on collected references and information. Its purpose was to clarify and deepen each member's understanding on the current situation regarding development and the environment in the region (including the upstream basin). In the second phase, a field study was conducted, focusing on Laos and Cambodia, because the both countries were identified in the first phase as the aid-priority-nations in view of their current grievous situation.

The report consists of four chapters: Chapter 1 gives the "Aims and overview of the study", Chapter 2 reports "Current socio-economic situation in the basin", Chapter 3 discusses "Problems relating to development and the environment in the basin", and Chapter 4 puts forward "Recommendations in respect of development and the environment".

The following are a brief summary of the Chapter 3 and the Chapter 4.

3. Major problems relating to development and the environment (with some suggestions on their countermeasures)

:

(a) Agriculture

The basin experiences remarkable disparities in rainfall between the rainy season and the dry season., and the river flow rate and water level also fluctuate markedly. Taking such natural phenomenon into account, farming has been conducted in a form suited to the natural environment.

In Laos, due to limited amount of arable land and the instability caused by flooding/water shortages, irrigation is required in the existing farmland, while its upland area has to be developed for agriculture promotion. The increasing population engaging slash-and-burn farming over-exploits the land. It is therefore necessary to examine alternative means of development as much as possible: for example, to try to create new places for different kinds of agriculture production such as sericulture, cassava, poultry farming, fruit growing and processing and living by combining regional communities and regional resources.

In north-east Thailand, where the evaporation rate exceeds the annual rainfall, the irrigation is needed in most part. The sudden development of farmland after the World War Second, however, led to the degradation of the productive environment, including deforestation, erosion and salination. In the next 20 years, irrigation using smaller quantities should be promoted and, if possible, the variety of rice needs to be converted to the one of high-yield.

In Cambodia's lowlands on the Mekong, local inhabitants have long employed a form of farming which uses the soil carried by the flood waters and the fluctuations in water level.. However, there is a need in the future to seriously examine how to plan and implement medium/large scale irrigation development. On the other hand, prompt and effective measures should be taken to clear mines which have been scattered in farmlands and to return them for farming.

The Vietnamese Mekong delta experiences flooding and saltwater intrusion so that it is necessary to aim for measures to respond to the flooding in the wet season and the saltwater intrusion in the dry season. In addition, it is expected to proceed to stages from small-scale activities compatible with the natural environment towards medium /large scale farming while constantly monitor development in upstream countries, which has a large impact on farming.

(b) Forestry

The degree of deforestation varies slightly among the riparian countries. But deforestation is caused by slash-and-burn farming, commercial logging, large-scale development, the gathering of

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fuel and illegal logging. In Laos, the majority of high-quality timber with a commercial value has already been logged. Both in Thailand and in Laos, logging continues, despite the existence of regulations. Currently, extensive deforestation is found in projects such as highway construction, dams and reservoir construction, etc. whereas contractors do not pay much attention to it.

It is necessary to carefully watch satellite pictures and to draft land use plan. A system should be created whereby the forestry agency takes responsibility for the re-generation of woods, monitors logging, regenerates forests and carries out afforestation. A sustainable system should be created for the management of forests in local village authorities. For the people who wish to remain in mountain areas, all kinds of supporting measures should be taken to ensure them develop close exchange with the market economies of flat regions and efforts should be made to raise the living standard and to promote education.

(c) Fisheries

The inhabitants of the Mekong basin heavily rely on freshwater fish as a source of animal protein. Nevertheless, due to all kinds of economic activities such as the water resources development, logging, expansion of farmlands, use of agricultural chemicals and sewage from cities, the fisheries are suffering from adverse effects such as increased saltwater damages (in north-east Thailand and some part of Laos), increased water pollution, submerged trees, the loss of coastal mangroves and increased influxes of earth and sand (to the Great Lake and reservoirs in north-east Thailand).

The construction of dams and weirs should be avoided if possible. In case some construction has to be made, nevertheless, construction methods which retain the shape and state of rivers as near as possible to their natural state should be used.

(d) Hydroelectric Development

With rising populations, pressure to expand food production and to generate power to supply energy to increasing industries has been augmented. Due to it, the requirement to build dams and powerhouses has become imperative throughout the Greater Mekong region. To answer to the pressing needs, a number of dams and powerhouses are being constructed and/or planned, particularly in Laos.

However, reservoirs for large-scale dams have adverse impacts on the natural environment and also on the social environment such as resettlement of inhabitants. Even small scale hydropower development often causes troubles such as the disappearance of elegant waterfalls and also the creation of river sections where the water has receded.

In Laos, the government has given concessions to private enterprises for power development. Taking into account what has been occurring currently in Laos and in else-where in the Mekong, there is a keen requirement to draft the environmental guidelines and to keep rules for their observance for hydropower development..

(e) Transportation

So far until today, everywhere in the Mekong basin, people are suffering from both bad road conditions. It is obvious that more new and better roads, highways, airports/ airstrips and sea/river

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ports should be constructed in the Greater Mekong sub-region. However, the provision of such means of transportation often cause negative implications which involves environmental degradation: the construction of new seaports and expansion of existing ones sometimes affects mangroves, coral reefs, seaside scenery and coastal fishing while the construction of highways and airports often causes social problems such as the division of regions, relocation of inhabitants and noise.

(f) Communications

Similar to transportation, people in almost everywhere are suffering from poor provision of communication system. Drastic improvement of the communications is essential for the pursuit of efficient development and for the enlightenment of inhabitants in remote regions of the Mekong. On the other hand, development of communications may also be more negative than positive for people who were born and raised in mountain and farming villages who may have seldom opportunity to see the outside world., and there are concerns about the kind of changes the spread of communications would bring in future to the innermost parts of societies, including some potential psychological impacts.

(g) Urban social infrastructure

Among a number of problems caused by the rapid increase of population in major cities and towns in the Mekong basin, poorness of facilities for draining sewage and rain-water as well as for the disposal of both household and industrial wastes are source of headache. Also, increasing consumption threatens to create a shortage in the water supply. The lack of waterworks has led to the high infant mortality rate and to the outbreak of disease and other deterioration in the hygiene situation. In addition, the on-going industrialization and urbanization threaten to increase potential damages of a flood. Everywhere in the major cities and towns , people are suffering from shortage of the supply of electricity. All such problems mentioned above have become serious, year after year.

(h) The environment in/around the Great Lake

The richness of fish production in the Great Lake is well known. Nevertheless, in some places, the lake is said to have been in a state of eutrophications, ammonia and nitric acid, due to the influx of household sewage near Phnom Penh and also due to water pollution caused by the use of agricultural chemicals in the area surrounding the lake.. Another problem which has recently drawn attention is sedimentation: a lot of sand and gravels have been being piled up in the Tonle Sap river nearby Phnom Penh.

An examination of changes of flow conditions, degradation of water quality and sedimentation, etc. is required not only for the future of the Great Lake but also for the benefits of people situated in downstream/upstream of the Mekong.

(i) The Mekong Delta

Construction of livelihood environment and public infrastructure is in progress in the delta region although it is still far behind schedule. while every year, flooding occurs and submerges a large part of irrigation systems, and in the area which is not affected by flooding, salts are accumulated and most consist of brackish water, where seawater travels up into the river. There is no doubt that flood defenses and saltwater measures would improve productivity However, the long-term impacts over the natural environment, particularly biodiversity, has not been adequately forecast.

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5. Recommendations to the Japanese government on development for environmentally-friendly assistance

Taking the current as well as the foreseeable future problems and their countermeasures mentioned above into full consideration, the Committee summarized its recommendations to the Japanese government after repeated, serious discussions among members on how to cope with such problems in the region with environmentally-friendly manner. The following are gists of the summary ;

A. General

(a) Aid to the least developed countries (LLDC) should be based on "love and respect" for those nations and their people and, moreover, should be driven by the local residents.

(b) Truly successful development assistance would be brought by considering the environmental conservation from the outset.

(c) Development assistance with priority on the environment should first take a comprehensive, wide, macro-view approach, and next incorporate micro-innovations that address more specific concerns.

(d) People are mostly worried by physically negative impacts such as probable exhaustion of resources and the degradation of the environment which may be caused by development. But it is important to consider not only such physical impacts but also the spiritual and psychological impact of development on the local residents.

(e) Large-scale development projects, such as the projects proposed in "Strategies for development of the Greater Mekong Area" must:

- address the true needs of communities in the region.
- assess in a fair and comprehensive manner socio-economic, mental and environmental impacts before, during and after development.
- proceed in a gradual manner that does not put undue stress on the target region.
- proceed from start to finish in a manner that is open to public scrutiny.
- not interfere and in conformity with the scenery or regional culture.
- modify or adjust to changing situations and conditions.

B. Agriculture and Forestry

Emphasis must always be placed on conservation of the natural environment, including preservation of biodiversity. This means producing a comprehensive database of information on environmental resources. At the same time, development must also respect the lifestyles of the residents in the target region. This means:

- supporting forest management while showing an appreciation and respect to shifting (slash-and-burn) agricultural practices as much as possible.
- promoting agricultural practices that are, first of all, in harmony with the natural environment, and, next, based on suggestions and requests of farmers themselves. The provision of infrastructure should, for the moment, begin with small-scale developments, which can be

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controlled and managed by farmers themselves ,who are the beneficiaries. Then it should be gradually moving to implement medium or larger scale irrigation development as needs increase. In any event, participation of the residents them-selves is essential in such initiatives; What is imperative is to bear in mind not to degrade the natural environment and local communities. - giving balanced consideration to the importance of preserving animal habits and to the needs for development. This means reaching consensus on the methods, limits, pace, etc. of development with all those concerned.

C. Hydropower

Efforts must be made to minimize negative natural and social impacts and to measure the region's potential for energy development from comprehensive viewpoints in order to promote local electrification as much as possible. At the same time, it is important to verify the position of the local government and to obtain its consent.

D. Water

It is important to build a system to monitor the quantity and quality of the water in both the mainstream and its tributaries of the Mekong to ensure that its development does not bring changes that result in international or domestic conflicts.

E. Transportation

Highway construction should exert minimal impact on the environment and support the construction and maintenance of feeder roads to smaller towns and farming villages to enhance the lives of residents.

F. Communications

Communications will contribute greatly to future development. Support should be extended to promote maximum gain and minimum loss to the communities not only in physical terms, but in less tangible forms as well.

G. Urbanization

Japan must extend its tradition of assistance for improved urban living environments to smaller regional cities, listening carefully to the views of the residents and extend-ing support to meet their specific needs.

H. Cultural and Natural Heritages

Maximum effort must be devoted to the preservation of natural and cultural assets, while emphasizing the support and maintenance of indigenous traditional technologies, habits and others.

6. The last word of the Committee Report and the author's conviction

The above list of gists which was unanimously supported by all the members of the Committee contains valuable implications, but the author has added one more sentence at the very end of the Committee's recommendation:

" People in all six riparian countries are mostly Buddhists. If people remember the extraordinary warm compassion and mercy of Buddha, they could certainly achieve the most desirable sustainable development in this region without accompanying conflicts or environmental destruction."

It is the author's conviction that Japan, as another Buddhist country, may be in the better, suitable position to share the same view and sympathy with its aid recipients in this region..

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