



Integrated Water Resources Management

Dong Nai Pilot Project, Vietnam
Nam Ngum Pilot Project, Lao PDR
Stung Sen Pilot Project, Cambodia



Coordinated projects financed by 3 French Water Agencies
(Loire Brittany, Seine Normandy, and Rhine Meuse)
and operated by the International Office for Water

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Dong Nai Pilot Project, Vietnam

The Dong Nai Pilot Project has been developed first right after the signature of a cooperation agreement in June 2007 between Mr Alain Juppé, at the time Ministry of Sustainable Development, and Mr Mai Ai Truc, former Ministry of Natural Resources and Environment in Vietnam. It aimed at providing technical assistance to the Vietnamese authorities for the implementation of an Integrated Water Resources Management approach (IWRM) through an application on the Dong Nai pilot basin. **The Kick off meeting took place in Hanoi - October 2009 - gathering about 100 participants mainly at national level while final conference presenting the project results and perspectives took place in the main city of the basin and economic centre of Vietnam, Ho Chi Minh City - April 2012.**



Dr Lai, Vice-Minister of Environment and Natural Resources, during the project final conference

The institutional support project and overall coordination was implemented by International Office for Water (OIEau) and financed by two Water Agencies: Loire Brittany and Seine Normandy water agencies. The French Ministry of Economy and Finance also supported the project through the allocation of a grant (FASEP fund) for technical assistance on Data management (OIEau) monitoring (Asconit Consultants) and River Basin Management Planning (SCE).

During the project, almost 200 days/person of training on IWRM tools and methods were provided.

A first river basin management plan has been drafted for the Dong Nai together with methodologies for shared data management and participative planning approach inspired from the European Water Framework Directive (WFD) principles and the French experience for implementation.

The actions implemented during this first step contributed to some decisive achievements:

- Preparation of a new Water Law by the MoNRE (Ministry of Natural Resources and Environment) with the support of French legal experts. This Water Law was voted by the Vietnamese National Assembly on June 21, 2012.
- Drafting of an implementation decree including the creation of river basin organisations (under adoption process)
- The official commitment taken by the Vietnamese during the last World Water Forum of Marseille to follow the Integrated Water Resources Management approach.
- The strong will of the Vietnamese Ministry of Natural Resources and Environment to create a Dong Nai basin river basin organisation and related consultative committee.

The achievement of this last decision is central for the reinforcement of the institutional and operational measures for the preservation of the water resources and aquatic environment in the Vietnamese river basins.

To go further, it will be necessary to support the building up an efficient Vietnamese team able to lead IWRM planning process and the different techniques for the elaboration of a financially balanced action program.

Perspectives for a second phase of the project

Bilateral meetings between the OIEau and the Vietnamese counterpart helped defining the content of the project phase 2 activities necessary to materialise the progress made in the understanding of the institutional developments needs for an efficient IWRM.

The proposition of a launching meeting for that second phase has been validated and should take place in Ho Chi Minh on October 2013. This meeting would be the occasion to gather the potential members of the Basin Committee.

Training in France of the Dong Nai River Basin Organisation team:

The training will concern the team composed of Vietnamese administrators and engineers who will be in charge of the implementation of the IWRM approach in the Dong Nai basin. The expected duration of the training is around 2 months.

Institutional support in Vietnam for the development of Dong Nai River Basin Organisation team activities:

An on-the-job training will be provided to support the successful start of Dong Nai basin organizations and connexion with its basin committee as detailed in the implementation decree.

Lao PDR - Nam Ngum Pilot Project

Lao PDR presents an exceptional biodiversity and has still abundant water resources of good quality. But the recent rapid economic and industrial development came along with new conflicts between the different water users (in particular hydropower, the electricity being mainly exported to Thailand and Vietnam, mining sector and irrigation), which call for urgent reaction. Moreover, environmental and socio-economic risks linked to the proliferation of dams, current important source of foreign currencies for the country, remain difficult to estimate by the national and local organisms.

Lao government is well aware of these issues together with the value of a sound environment as eco-tourism and related economic growth is another pillar of the country development. The government has a proactive policy in the field of environmental protection, as shown by the newly approved decisions: adoption of a national policy for water resources management, creation of the Ministry of Water Resources and Environment (MONRE) , the establishment of pilot basin committees for IWRM.

The first two-years phase of the pilot project aims at supporting the government in this process. It started in March 2011 by an international seminar on water resources management. Ten missions have been realised with the participation of French experts from the Rhine Meuse and Loire Brittany Water Agencies, as well as the International Office for Water, responsible for project coordination and management. It supported both the national IWRM policy implemented by the Department of Water Resources of the MONRE and the Nam Ngum River Basin Committee Secretariat basin

The work done until June 2013 was implemented including various workshops in close connexion with the River Basin Management Planning development agenda on the Nam Ngum. It was targeting a working group inspired from the multi-sectoral composition of the Nam Ngum Basin Committee and was aiming at setting the conditions and a good general framework for Integrated Water Resources Management (IWRM) on this basin.

This institutional support program, including advice from experts from the French water agencies carrying a long lasting experience of River Basin Management Planning in France has been greatly appreciated for its important contribution to enable Lao PDR to gradually gain practical experience for developing and testing the principal tools for IWRM: governance, local stakeholders awareness, planning, funding mechanisms, data management.

The focus of the end of the first phase has been the establishment of the program of measures:

- definition, prioritisation and localization of the future actions and measures to be implemented within the basin, in order to tackle the main objectives and stakes that have been defined with the Secretariat of the Basin Committee;
- estimation of the costs and financial balance of the program;
- potential funding sources for the measures implementation.

At the same time, a reflective work on the functioning of the Nam Ngum Basin Committee (vision, operating rules, main issues to take into consideration for IWRM, etc) has been done and the resulting documents submitted to the General Director of the Nam Ngum River Basin Committee Secretariat.

The last 3 missions in 2013 were dedicated to:

- "Water Information Systems and monitoring": It resulted in recommendations and advices to set the legal base for data sharing between institutions, to be taken into account in the future Water Law, currently under revision. This work completed the provision of tools and training to Department of Water Management to organise data flow management for sustainable improvement of information management in future River Basin Management Cycles.
- on the planning process, and more specifically on the establishment of a methodology for the preparation of the program of measures, its economic analysis, its restrictions and its financial balance. Results have been presented to the working group during a seminar in Vientiane.



Participants to the seminar on the training for the methodology for the preparation of the program of measures.

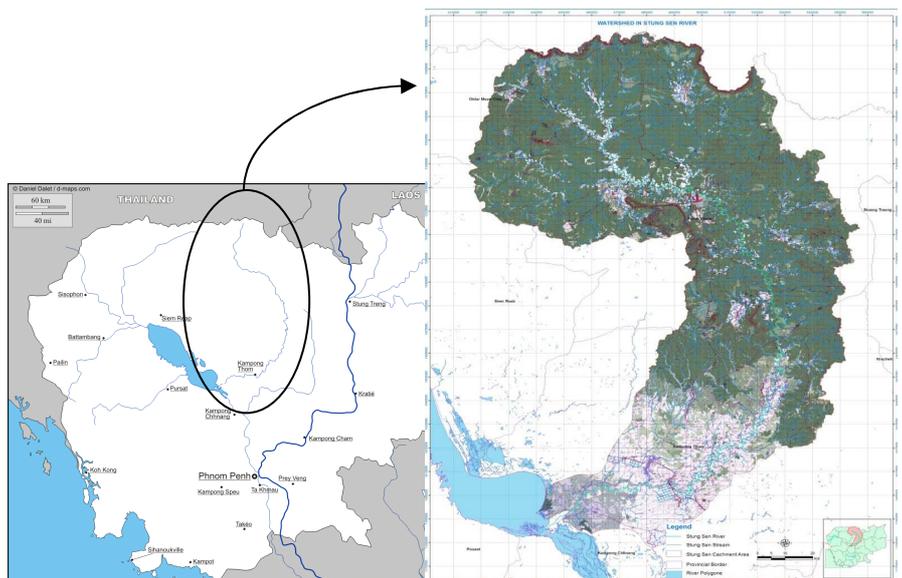
- And a last mission that gave the occasion to officially present the final results of the first phase of the project to the Lao partners, and to present the prospects of development for the second phase of the project (2014-2015).

This second phase will benefit from important progress made during the first phase as the institutionalisation of the Nam Ngum River Basin Committee (NNRBC) through the decision n° 10/PM of the Prime Minister the 29 January 2013. The challenge of the second phase of the project will be to build a common understanding of the issues and values of the basin to be tackled and maintained through the basin action program. It is thus of prime importance to prolong the work with the Basin Committee Secretariat in order to support the building up of a successful River Basin Management experience in the Nam Ngum and its extension to other basins.

Cambodia-Stung Sen Pilot Project

Integrated Water Resources Management is a priority field of French cooperation in the lower Mekong Basin countries; The Cambodian project started last in September 2012. It is sound with the two other decentralized cooperation projects, funded in the region by Loire Brittany, Rhine-Meuse and Seine-Normandy Water Agencies, aiming at improving the water related governance through the promotion of Integrated Water Resources Management (IWRM) in Vietnam (Dong Nai pilot project) and in Lao PDR (Nam Ngum pilot project). Based on the same structure as the two first successful projects in the neighbouring Mekong countries, the Stung Sen River Basin has been selected to be the pilot RBM Planning practical application in Cambodia. It is the main tributary of the famous Tonle Sap lake.

This rural basin, poorly industrialised and economically developed, is located at 130 km from Phnom Penh, and covers an area of 16 340 km². It is mainly located in the provinces of Kampong Thom and Preah Vihear. Stung Sen mainstream (465km of length) is presently under study for the establishment of two hydroelectric and irrigation oriented dams.



Tonle Sap Basin

Close up on Stung Sen sub-Basin

The Tonle Sap Authority (TSA) under the Ministry of Water Resources and Meteorology is the Cambodian partner for this project. Its main mission is to coordinate the management, the preservation and the sustainable development of the Tonle Sap Basin, which constitutes an exceptional hydrographical system.

The Tonle Sap is the biggest lake in Southeast Asia. It covers an area of 250 000 ha during the dry season (4.500 millions of m³, between 1 and 2 meters deep) and 1,6 million ha in the rainy season (135 000 millions of m³, 8-11 meters deep). Its hydrology depends on the Mekong: during the rainy season, the Mekong flows into the lake and 20% of its flow is absorbed. In the dry season, the flow reverses and the lake supports the Mekong flow. The rest of the water comes from the own lake basin through the 11 tributaries, including the Stung Sen. The richness of the ecosystem is exceptional, especially considering the aquatic life - this area is one of the most productive in the

world for fishes - but also for forestry: the lake is surrounded by a "flooded forest" remarkable for its biodiversity.

In the medium term, TSA wishes to establish a Water Development and Management Master Plan for the whole Tonle Sap Basin. This will be needed for the preparation of a sound program of measures/actions. It implies starting collecting the existing information and data, to create consultation bodies at local and national scale and to organize a monitoring system.

In the short term, the objective is to test new governance practices on a sub-basin of the Tonle Sap Basin, namely the Stung Sen River Basin. This project started with the launching seminar held in October 2012 in Phnom Penh, and will allow building and reinforcing the capacities of the TSA, the MOWRAM and its representations in the Provinces and Districts, for the following topics:

- Organisation of the methodological and technical capacity building of the Cambodian institutions and the stakeholders of Water Resources Management.
- Establishment of a management plan for a sustainable use of water resources on the Stung Sen Basin.

The work done during the first year (October 2012-2013) focused on the first steps of the planning process (characterization of the river basin) and on the elements needed for the implementation of a participative process (training on the enabling environment for the establishment of Stung Sen Basin Committee with a stakeholders' analysis to select the future members of this basin committee). The training sessions that have been hold during French experts' short-term missions, with the support of the long-term regional expert based in Phnom Penh. This allowed giving to the TSA and MOWRAM key experts a good knowledge in order to be able to carry out the implementation of an IWRM policy in Cambodia.



Meeting with local elected (Chiefs of communes, Chiefs of Districts and Governor of Kampong Thom Province) in the downstream part of Kampong Thom