

SUSTAINABLE DEVELOPMENT & WATER RESOURCES MANAGEMENT OF LOKTAK LAKE (SDWRML)

A project implemented by Loktak Development Authority (LDA) & Wetlands International - South Asia (WISA) and funded by India Canada Environment Facility (ICEF)



END OF PROJECT PERFORMANCE ASSESSMENT REPORT

May 2004

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Executive summary

The project 'Sustainable Development and Water Resources Management of Loktak Lake (SDWRML)', located in the state of Manipur, India was designed primarily to look into the water management aspects within the basin constituting the Lake. The SDWRML project was launched on February 1, 1998 for 5 years and later extended by one year. The project was completed at the end of March 2004 and the end of project evaluation was undertaken in the month of March 2004 to review the overall performance of the project.

As per the Performance Assessment Guidelines the evaluation focused on appraising the performance of the implementing organizations in formulation, implementation and overall management of the SDWRM project and their success in achieving results consistent with the project's Logical Framework Analysis (LFA), the Project Management Plan (PMP) and six key performance areas.

- ☒ Firstly, it must be appreciated that SDWRML project was launched at a stage when not only the socio-political milieu of Manipur had taken serious turns, but also the problems of Loktak Lake no more remained a simple one-dimensional phenomenon. It became extremely complex, multidimensional and the consequent situation was interdependent of a multiple socio-economic-cum-historical-cum-technological/scientific factors.
- ☒ However with regard to providing livelihood security to the project communities, the achievement of the project has been poor. It has not been able to create any significant impact on livelihood related activities with respect to the target communities. However the project has initiated a number of activities at the Research & Development or at demonstration scale. While the project has concentrated on technology development and technology trial of the activities, the activities remained incomplete with respect to its commercial viability and understanding the market potential.
- ☒ The most crucial relevance of the results of the project is in relation to the scientific data system and analysis. This would be extremely useful and guiding principles for planning interventions not only for Loktak Lake but also for similar Wetland development projects.
- ☒ There were hardly any intervention of a reasonable scale which was tried in the project in order to address the major and equally complex environmental problems related to Loktak Lake and its hinterland.
- ☒ The inner capacity of LDA has been built significantly as a result of the project. LDA which was primarily an engineering organization has taken up several developmental activities and has appreciated the role of local communities, which by itself a major achievement of the

project.

- ☑ The construction of Ithai barrage and the NHPC operation have certainly contributed to the deterioration of the environment of Loktak Lake and the people around it. The more important dimension of the barrage intervention was the apparent visual impact (i.e. water flow, inundation etc). As a result, apart from scientific investigation of the impact of Ithai barrage, the local people as well as the project staff seem to remain preoccupied with the idea that unless something is changed with the existing operational norms of the NHPC, nothing could be done to correct the situation. It appears that this mind-set was partly responsible to prevent seriously examining the alternative options or strategies which takes the NHPC operations as “given” in which any drastic change is not only difficult, but perhaps impossible.
- ☑ The project design is adequate, though the rest of the plan appeared missing the strategic focus on the ultimate goal. The indicators provided in the logframe were not quantitative and hence was left to subjective judgments during evaluation. It may be noted that the logframe or Result Based Management (RBM) principle of CIDA insists that the indicators must be “Objectively Verifiable Indicators (OVI)”.
- ☑ The project reporting and monitoring was quite efficient. Within the team WISA took on the responsibility of data collection and reporting. WISA being based in Delhi and skilled in communication did this job extremely well. Additionally WISA had a unique position of working both as internal and external members to the project. They could make targeted visits for the purpose of collecting information and prepare reports in Delhi.
- ☑ The project area lacked substantial number of NGOs with whom the project could partner. However, many of the localities had small informal youth clubs to organize youth for some local games or festivals. In the absence of the NGOs, the project could see the potential with these youth clubs and built their capability and partnered with them.
- ☑ On the fishery project, the project has been quite successful in adopting the design of a fish hatchery, which is originally a Chinese design. However the design was being used by the fishery department, but the size of their hatchery was quite big. The project has been able to down scale the design of the hatchery and construct it too.
- ☑ Documentation and communication activities of the project are fairly well developed. The project has a very good MIS system and has come up with number of attractive publications. Practically for each activity the project has developed a very good power point presentation. The project also has been able to make use of these communication materials during several workshops that they have conducted.
- ☑ There are clearly three environmental mitigation measures which seemed to be important to result conspicuous improvement of the lake:

Treatment and control of the Nambol River flowing through the town of Imphal carrying sewage

and other wastes to the lake, which act as an important source of nutrients for prolific growth of phumdi and also deteriorate water quality. This alternative would possibly be costly one, but this is an imperative need not only for the lake but also for Imphal town. It could be an essential part of an Urban Development Plan.

Enhancing present micro water-shed based catchment area treatment in order to reduce soil erosion and sedimentation of the lake.

As suggested in a recently conducted EIA report, construct a channel to increase the flow of water in the Sangai Natural Park area which could settle the Phumdi at the bed of the lake.

☒ Demarkation of the lake boundary should be an important element of the strategic focus. Without a clearly demarcated and government notified area and boundary of the lake, it becomes not only difficult to implement a focused and concentrated action plan, but also becomes administratively difficult to manage encroachment problem.

☒ Livelihood enhancement is the most critical aspect of the future action plan. In fact the reduction of dependence on the lake resources also depend on the plan. Not only this action plan should be economically viable and technically feasible, but also should be in a scale to cover as much affected local population as possible and in a relatively large scale operation. In fact, instead of pursuing small mini-scale interventions in a number of demonstration level projects, whose economics and marketability not yet established (and doubtful e.g. compost), there are two economic activities which have the potential to develop into flagship economic activities for livelihood enhancement:

☒ A draft Water Management Plan (WMP) has been prepared, which is an external important output of the project. However as it has not yet been endorsed by the stakeholders, particularly by NHPC, the application of the WMP is doubtful. Hence the project must take immediate steps to get the WMP endorsed.

☒ The project has come to stage where it has prepared the WMP, collected lot of data, undertaken lot of demonstrations etc., now it is time for the project to get into application of all these for implementation. The project has submitted a project to the Planning commission for a long term project. The project is also following up with North East Council (NEC) for a similar project. However in both the cases, when the project would be sanctioned is not clear. The project has already faced a break in funding and the staffs are quite scared. At the same time the project has only spent 70% of the total budget. Hence if it is possible under ICEF principles, the project may be given a no-cost extension for one or two years to complete some of the current activities and provide continuity to the project, so that it is ready for taking up the big project when it comes.

Recommendations

Considering that this is the end-of-ICEF Project review, the recommendations are necessarily related to follow-up for future action plan. These recommendations are classified into three broad issues:

Strategic focus

Technology Interventions for Alternative Livelihood Program

Sustainability of the local Institutional Framework.

1. Strategic focus

After six years of intensive scientific studies and some experimentation of demonstration level development projects, it is perhaps the right time to revisit the strategic focus for a long term future action plan. Broadly the strategic focus could be the following:

Alternative environmental action to reduce proliferation phumdi of the lake, and improve the water quality considering the barrage operation as 'given' and unchanged.

To clearly demarcate and notify the exact boundary of the lake area.

To initiate measures to reduce the dependence of the people on the resources (fish etc) of the lake

To identify a few potential scaled up economically attractive livelihood enhancement programs.

To identify an empowered administrative and organizational authority (e.g. LDA) to plan and implement the focused action plan along with appropriate financial budgetary allocation

2. Alternative environmental action

There are clearly three environmental mitigation measures which seemed to be important to result conspicuous improvement of the lake:

Treatment and control of the Nambol River flowing through the town of Imphal carrying sewage and other wastes to the lake, which act as an important source of nutrients for prolific growth of phumdi and also deteriorate water quality. This alternative would possibly be costly one, but this is an imperative need not only for the lake but also for Imphal town. It could be an essential part of an Urban Development Plan.

Enhancing present micro water-shed based catchment area treatment in order to reduce soil erosion and sedimentation of the lake.

As suggested in a recently conducted EIA report, construct a channel to increase the flow of water in the Sangai Natural Park area which could settle the Phumdi at the bed of the lake.

3. Demarkation and notification of Lake Boundary

This should be an important element of the strategic focus. Without a clearly demarcated and government notified area and boundary of the lake, it becomes not only difficult to implement a focused and concentrated action plan, but also becomes administratively difficult to manage encroachment problem.

4. Reduction of dependence on lake resources

Any externally sourced disturbance on natural water body like Loktak Lake tend to create problem of equilibrium. The dependence on lake resources (e.g. fish, vegetables, fire wood etc.) of a sizeable population of Phumdi dwellers and lakeshore population on almost daily and continuing basis is not at all a congenial factor for sustaining the health of the lake. There are clearly two strategic action plans for achieving the reduction of the dependence:

Attractive resettlement plan for the Phumdi dwellers backed by remunerative livelihood program. Restricting fishing as far as possible, this would also depend on attractive alternative livelihood programs (discussed in the next point). The alternative of fishing net in replacing Athaphum could be seriously followed up.

5. Livelihood enhancement

This is the most critical aspect of the future action plan. In fact the reduction of dependence on the lake resources also depend on the plan. Not only this action plan should be economically viable and technically feasible, but also should be in a scale to cover as much affected local population as possible and in a relatively large scale operation. In fact, instead of pursuing small mini-scale interventions in a number of demonstration level projects, whose economics and marketability not yet established (and doubtful e.g. compost), there are two economic activities which have the potential to develop into flagship economic activities for livelihood enhancement:

Hatcheries and fishponds

Largely stall-fed cattle holding and dairies along with chilling plant or large chilling container and transport system to the market. The viability of dairy would be easier due to almost weed like natural growth *Para grass* as a complete food or fodder.

However, for both of these scaled up livelihood programs should be dovetailed with a marketing potential and as well as appropriate local level institutional framework as economic enterprise.

6. Administrative and implementation authority

A strategic intervention plan is of no consequence if it is not backed up by appropriate policy framework and an empowered organizational authority. Given the long experience, the LDA appears to be the appropriate organizational set up to undertake the implementation of such program. But, the actual functioning of such authority and linkages with various government and non-government organizations need to be worked out.

7. Endorsement of Water Management Plan

A draft Water Management Plan (WMP) has been prepared, which is an external important output of the project. However as it has not yet been endorsed by the stakeholders, particularly by NHPC, the application of the WMP is doubtful. Hence the project must take immediate steps to get the WMP endorsed.

8. No cost extension

The project has come to stage where it has prepared the WMP, collected lot of data, undertaken lot of demonstrations etc., now it is time for the project to get into application of all these for implementation. The project has submitted a project to the Planning commission for a long term project. The project is also following up with North East Council (NEC) for a similar project. However in both the cases, when the project would be sanctioned is not clear. The project has already faced a break in funding and the staffs are quite scared. At the same time the project has only spent 70% of the total budget. Hence if it is possible under ICEF principles, the project may be given a no-cost extension for one or two years to complete some of the current activities and provide continuity to the project, so that it is ready for taking up the big project when it comes.