Report on the Final Evaluation (May 2008) LBCRM-PL/ICRM-PL

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Summary

The collaborative project implemented by SEAFDEC and DOF Malaysia, named Locally Based Coastal Resources Management in Langkawi (LBCRM-PL), started in August 2003 with an initial duration of two years (until July 2005) but was extended until December 2006. The project was again extended until December 2007 because of the tsunami that affected the area. Funding of the project from August 2003 – December 2004 was by the Japanese Trust Fund 1. From January 2005, the project was funded by Japanese Trust Fund IV which placed emphasis on human resource development. The project title was then changed to "Integrated Coastal Resources Management in Pulau Langkawi (ICRM-PL)." This evaluation is intended to assess the marine biological impact on the marine resources and the socio-economic impact on fishing communities towards the achievement of the project objectives.

Objectives of LBCRM-PL/ICRM-PL

The overall objectives of LBCRM-PL and later ICRM-PL were:

- 1. to provide technical assistance for the sustainable development of coastal fishery communities in Pulau Langkawi;
- 2. to introduce the CBRM approach for the management of fisheries in Langkawi; and
- 3. to implement a pilot project using the CBRM / ICRM approach in Kuala Teriang, Langkawi.

Targets

Based on the above objectives, the targets and focus for the project were:

- 1. the state of the marine fishery resources of Kuala Teriang,
- 2. the socio-economic status of community in Kuala Teriang,
- 3. enhancement in education, understanding and awareness of fisheries management in the local community in Langkawi and staff of DOF Malaysia,
- 4. increased awareness and understanding of CBRM and integrated fisheries management in the local community in Langkawi and staff of DOF Malaysia,
- 5. the implementation of CBRM,
- 6. the development of local communities *KEN/KPSP* and *KEW* (Women's Economic Groups or *Kumpulan Ekonomi Wanita*) for fisheries management, and
- 7. rehabilitation of the community after the December 2004 Tsunami.

Beneficiaries

The direct beneficiaries of this project are the fishing community in Kuala Teriang, Langkawi and their families. In addition, indirectly the fishing communities in areas adjacent to Kuala Teriang could also benefit from the project operations. Generally, there is strong support and commitment shown by fishers, the local community and other stakeholders.



¹ The detailed Final Report on the Evaluation of the ICRM-PL Project was published jointly by SEAFDEC/TD and DOF Malaysia in June 2008

Prospects for Sustainability

There is logical consistency between inputs and outputs of the project. The quality and quantity of inputs, e.g. technical expertise and equipment as agreed were delivered within the time frame specified. Specifically, the project has been good and encouraging where the community expressed their support. The DOF Malaysia has also been convinced that project can continue. But *the fishery resources must be available*.

Project Design

The project comprised many sub-projects and related activities specially those that are related to the state of the fishery resources. The socio-economic impact has been considered, e.g. status of the community. There is continuous community development and capacity building focusing on CBRM. As for the efforts on rehabilitation after the tsunami, these have been carried out through the various rehabilitation activities.

The institutional arrangement for project implementation depended on the lead roles played by SEAFDEC and DOF Malaysia. The increased awareness in CBRM and co-management of fisheries; and the development and upgrading of skills of members of *KEN* and *KEW* showed the project was "cost effective."

Technical expertise provided by the project was sufficient and this was very much appreciated by the community. The project team, from SEAFDEC and DOF Malaysia, acted very professionally and efficiently. The team successfully implemented the project and managed it well to meet the expectations of the community. At the national level, DOF Malaysia had planned for the involvement of officers from other Divisions, e.g. Extension and Fisheries Management Divisions in this project. The officer from the Planning Division played the role of project coordinator.

Project Document

- **Main reference** used and is very important (for continuity especially when officers are transferred/changed)
- **Project design matrix gave good summary** of activities and indicators to evaluate performance (*performance indicators* are very important to evaluate if objectives are met, they should be *simple and understandable by fishers and communities*)

Institutional Relationship

- Lead role by SEAFDEC and DOF Malaysia
- Existing institution established through Kumpulan Ekonomi Nelayan (KEN) that was established in 2001
- Participative approach by stakeholders
- Stakeholders identified

Efficiency & Adequacy of Project Implementation

- Funds sufficient except for monitoring and impact survey on Artificial Reefs (ARs)
- Timeliness of Input Delivery delivered within time frame planned
- Technical expertise sufficient, professional, knowledgeable & relevant
- Managerial & Work Efficiency of Project Team professional and efficient
- Implementation difficulties no major problems
- Minor problem in scheduling of meeting dates among SEAFDEC, DOF Malaysia and fishers
- Insufficient number of DOF staff an additional officer required

However, funds should be made available for staff from relevant Divisions of DOF Malaysia to ensure continuity of activities. Furthermore, the Extension & Management Divisions Officers should be involved, and that the activities and success story should be transferred to other sites.

Monitoring & Reporting

The List of documents prepared that included the following are very useful:

- Project Document
- Marine Resources Monitoring Report
- Monitoring Socio-economic Survey Report
- Biannual Project Progress Reports
- Travel Reports
- Minutes of Project Steering Committee and Implementation Coordination Committee

Reports in the form of Minutes of the Project Steering Committee and ICC meetings; Biannual Project Progress Reports and travel reports from the implementation of project activities are also sufficiently clear and adequate. However, the process of introducing co-management of fisheries (including CBRM concept) at Kuala Teriang, Langkawi, should be prepared as main output, considering that this process is to be repeated at other sites. Such document would therefore be used as a reference and thus, should be made available.

Project Results

The following observations were noted:

- Resource Monitoring Survey
 - No consistent assessment was made
 - Sampling design for resource monitoring should be reviewed and improved (CPUE and length frequency) and the time frame should be extended
 - Monitoring to be continued at AR area
- Socio-economic monitoring survey was completed and the results are useful
- Community based resource management, Zoning arrangement, Local Enforcement Unit & Resource Enhancement activities came up with very good results
- Awareness, strengthening and motivation on CBRM and fisheries co-management are very important for the stakeholders
- Fisheries Resource Management Plan (FRMP) should be finalized, adopted and implemented as soon as possible
- Local business development for both *Kumpulan Ekonomi Wanita* (KEW) & *Kumpulan Ekonomi Nelayan* (KEN) would be sustained
- Training, study tours, courses have been very useful as these have upgraded the capabilities of the fisherfolk
- Physical upgrading and equipment provided especially after the tsunami, have contributed a lot to the rehabilitation of community.

Specifically, the conclusion from the Marine Resources Monitoring Survey seems to suggest that a consistent assessment of the status of the fishery could not be made with the data so far collected. A sampling design to enable sufficient numbers of specimens to be sampled and measured should also be developed. It is necessary that the impact of ARs (Artificial Reefs)/FEDs (Fish Enhancing Devices) on the fishery resources be evaluated and results should be properly translated and communicated to fishers, community members, *KEN/KPSP* and other stakeholders to further enhance their understanding and acceptance of the need for fisheries management and conservation.

KEN/KPSP and KEW were grateful and satisfied with the financial and infrastructure (buildings and equipment) contribution provided by the project through SEAFDEC and DOF Malaysia as well as through the Japanese Grassroot Tsunami Relief Fund. They also appreciated the training courses and study tours conducted to help develop their capacity in CBRM; fishery resources management, conservation and rehabilitation; fishing gear technology; repair of boats and engines, and in the development of human capital in small fishery-related business enterprises.

Sustainability of Project

- Mechanism & framework to ensure sustainability of CBRM & co-management of fisheries
 - Framework developed
 - Maintain momentum in implementation of activities
 - Training including leadership training
 - Information dissemination
 - Conduct of scientific surveys, monitoring of ARs and document
 - Monitor progress of KEW, KEN businesses

Conclusions

- Project achieved its objectives of introducing CBRM through provision of technical assistance to community through pilot project at Kuala Teriang
- Community is able to start co-management of fisheries
- Impact of project on coastal fisheries could not be quantitatively assessed
- No drastic change in socio-economic status but increased awareness in CBRM and holistic approach to fisheries management
- Project successfully implemented

This project has achieved its objectives of introducing the concept of CBRM through the provision of technical assistance to the community through the pilot project at Kuala Teriang, Langkawi. However *KPSP* may not be fully ready at this point in time to independently implement CBRM and manage the fishery. DOF Malaysia will continue to play a lead role in the co-management of the fishery in Kuala Teriang and is confident of continuing these activities together with *KEN/KPSP*, *KEW* and other members of the community.

The model of CBRM as practiced in one country cannot be introduced in totality to another country. Its introduction and implementation has to be adapted to the local historical, social, cultural, economic and development situations. It is for this reason that this project was started as a pilot scale project in Langkawi, Malaysia. The Kuala Teriang community still needs to be guided and prepared. The community is able to start co-managing the fishery with assistance from DOF Malaysia. The community will be empowered in stages to implement CBRM measures to manage the fishery independently in the future.

The impact of the project on coastal fisheries could not be assessed quantitatively because of inadequacies of the data collected. A review and improvement in sampling methodology to be used should be undertaken. The time frame for monitoring the fishery and collection of data should be extended.

There was no drastic change in the socio-economic status of the fishing communities in Kuala Teriang and Kuala Chenang between 2003 and 2006. However the Kuala Teriang community has benefited in terms of overall development in relation to increased awareness in CBRM and the holistic approach to fisheries management within the time frame of the project. The Kuala Teriang community was exposed to the need for active participation in activities related to fisheries management and conservation, including enforcement of rules and regulations.

Leadership and managerial capacities for CBRM and fisheries co-management were enhanced. Local community voluntary work and participation in conservation was demonstrated and enhanced through the crab bank (crab marking) sub-project. *KEW* and *KEN/KPSP* also benefited in the development of local businesses.

The project has been implemented successfully. It had created a significant impact for the introduction of CBRM/ICRM and fisheries co-management on the local communities at Kuala Teriang and adjacent villages. It could have produced an even much greater impact with the dissemination of more extension documents and information to the local community and other stakeholders.

Prospects for sustainability of relevant and related activities after the termination of this project are good. It is important that the first FRMP (Fishery Resource Management Plan) be implemented quickly. It is necessary that DOF Malaysia immediately initiates actions stipulated in the FRMP.

Recommendations

- The zoning arrangement as agreed should be incorporated into the FRMP. The FRMP should be accepted, endorsed and implemented quickly.
- The process of introducing co-management of fisheries and CBRM at Kuala Teriang, Langkawi, should be documented for reference and to be applied in other sites.
- Monitoring and assessment of the fishery in the area to study the effectiveness of ARs for resource enhancement should be continued. Results should be documented.
- A study on the impact of ghost fishing on the fish resources of the area could be initiated by FRI.
- A study to monitor the effectiveness of the crab bank (crab marking) sub-project is proposed.
- Monitoring of squid fishing with light lures is proposed.
- The project on mangrove re-planting should be monitored for effectiveness together with the Drainage and Irrigation Department.
- Information dissemination could be further enhanced through publication of technical papers, non-technical papers, extension documents, flyers, brochures as well as through electronic media.
- Public awareness and education of the community on fishery management and conservation should be further enhanced.
- The progress of KEN/KPSP and KEW businesses should be monitored through the use of selected indicators.
- A Division 1 Officer from DOF Malaysia (or contract officer) should be stationed and dedicated to the project site in addition to the Extension Officer for more effective implementation, monitoring and evaluation.
- DOF Malaysia should continue to maintain the momentum established or further develop the close rapport and communication with *KPSP* to ensure the sustainability of fisheries comanagement and CBRM activities.
- Funding for the implementation of FRMP should be made available by DOF Malaysia.
- The Fisheries Management Division of DOF Malaysia should implement the FRMP and play a lead role in further developing fisheries co-management and CBFM related activities in Malaysia.

Follow-up Assistance

- 1. Training courses, upgrading of skills and relevant human resource development programs including leadership training should be conducted
- 2. Exposure to Good Manufacturing Practices (GMP) and Hazard Analysis and Critical Control Points (HACCP) procedure to improve quality of products produced by *KEW*
- 3. Study tour to local CBRM project in Malaysia, e.g. Tagal in Sabah
- 4. Enhancement of community voluntary work
- 5. Provision of a marker buoy to mark the ARs in the area for safety in navigation and fishing
- 6. Final wrap-up seminar for information exchange on "lessons learnt"

