

# **The Coastal Resource Management Experience in San Salvador Island**

*by*  
*Albert M. Dizon and Gloria Miranda*

## *Introduction*

The exploitation of marine resources is a critical issue plaguing the country, where approximately 85% of the total population lives in the coastal areas and 5% relies solely on fishing as their means of subsistence.

Destruction of coral reef habitats and over fishing lead to declining fish catch. Floods and soil erosion due to heavy rains have caused extreme siltation and decrease in marine resources. Almost all parts of the country's marine area have suffered from these problems.

The small fishers are often blamed for the degraded state of the coastal areas, mainly because of their use of dynamite, poison and destructive fishing gear. A significant number of fishers from San Salvador, Masinloc, Zambales as an example, had once been engaged in illegal fishing methods. They used sodium cyanide and dynamite to catch fish with seemingly no concern for the long-term effects of the practice on the marine resources. The use of destructive fishing methods reached an alarming state when the fisheries showed significant sign of depletion.

Illegal fishing by small fishers, at the scale it is conducted, is not the principal cause of depletion of nearshore fisheries. Rather, artisanal fishers resort to use of distinctive methods of fishing to cope with the loss of coastal productivity. Recent studies have shown that lack of adequate management of these rich natural resources led to over-exploitation and constant decline fish production, especially within the municipal waters. As a result, income of small fishers remain inadequate leading them to employ more efficient, even destructive fishing methods, such as blast fishing to increase their catch.

The government's ability to arrest the practice of illegal fishing has proven to be inadequate despite the existence of numerous fisheries and environmental laws, as well as bodies charged with enforcing these laws.

Hence, various coastal resource management projects have commenced in an effort to address these problems. So far, these have been successful small-scale, site-specific models/experiences involving coastal communities in the management of coral reefs and fishery resources.

## **Conceptual Framework**

Central to development efforts is the idea that organizations are rational instruments for achieving goals. Social organizations are needed to effectively promote development. In fact development can be looked at as the way in which resources, ideas and organizations are combined to bring about something that will count as improvement. Broadly, the self-strengthening or self-reinforcing character of stable social systems comes about when resources, ideas and organizations are combined in such a way that the resources are renewed or increased, the ideas are re-enforced and if necessary, corrected or adjusted in use, and the organizations formed are preserved and/or improved (Leaf, 1991).

Community-Based Resource Management (CBRM) is defined as a process by which the people themselves are given the opportunity and/or responsibility to manage available resources, define their needs, goals and aspirations and make decisions affecting their well being (Fellizar, 1993). CBRM implies both the mobilization and use of available resources by the community to achieve their avowed purposes and the community's ability to manage existing natural resources in their locality by employing "other resources or inputs available to them".

Whether in natural resources management or in social development, CBRM operates on the premise that resources are managed best when the people affected by decisions participate in the design and implementation of these decisions. CBRM seeks to improve these decision-making capacities by broadening options and by utilizing collective and democratic process.

Organizing for a community-based resource management largely differs from the traditional viewpoint of community organizing. CBRM requires a more comprehensive approach because it entails the need to recognize and consequently unify interest and sectoral groupings towards a common purpose - that of managing natural resources within the community. It does not only focus on the traditional issues of livelihood enterprise and community projects but it extends people's attention towards resource conservation and sustainable development.

The objective of community organizing for CBRM does not end in the formation of groups alone. In the end it becomes a venue where conflicts on resource utilization are resolved. Competing interests and uses ultimately becomes the focal points. Thus, its goal is/the formation of an organization which duly represents sectional interests, and whose activities impinge on the deterioration or enhancement and sustainability of a certain community resource.

## **HARIBON Strategy: Community-Based Resource Management (CBRM)**

The marine sanctuary in San Salvador Island was set up through the painstaking efforts of non-government organizations (NGOs), the local government unit (LGU) and the local residents. The marine conservation program in this sanctuary now reflects the people's recognition of the need to conserve the immediate marine habitat.

Haribon Foundation has been one of the first Philippine environment groups to recognize the key role of the communities in ensuring the sustainability of conservation projects through a combination of community development strategies and resource conservation activities. The community-based resource management program also known as CBRM thus effects a broader participation from the marginalized sectors of society towards achieving a genuine change and sustainable development through education and training of the resource managers of the community.

The intervention of Haribon Foundation's community-based resource management projects in selected fishing communities within the province of Zambales started as early as 1987. The foundation as a non-government organization, entered into an agreement with the Dutch embassy to implement a Marine Conservation Project in collaboration with the Department of Agriculture on December 1988. The project gave birth to the establishment of the San Salvador Island Municipal Marine Reserve and Sanctuary which has been maintained since then under a community management system.

The said project also paved the way for the implementation of various projects under its Community-Based Management Program such as the Philippine Netsman Project - a training project aimed to teach aquarium fish collectors the use of environmentally-sound fine meshed nets instead of the deadly sodium cyanide. Other projects include the Community-Resource Management Manager's Training, an organizational development training, the objective of which is to build, strengthen and equip the community organizations with the necessary skills and knowledge that will enable them to assume all other initiatives and projects on resource management.

The CBRM project sites cover several municipalities of Subic, Palauig, Masinloc and Sta Cruz, all in the province of Zambales in Central Luzon; municipalities of Infanta, Real, Burgos and Patnanungan in the Province of Quezon; Mabini town in the Province of Batangas; and Puerto Princesa in Palawan.

### ***Premise of the CBRM Approach***

The destruction of aquatic resources particularly the exploitation of coastal habitats has reached an alarming level. In the Masinloc and Oyon bays, for example, resource depletion can be traced to illegal fishing and destructive fishing methods such as the use of sodium cyanide, blast fishing, fine meshed nets, overfishing and poor enforcement of law against such practices (Christie et al, 1990).

In addressing the foregoing problems, community involvement and participation play a key role in institutionalizing change. The people needs to be convinced and accept that their economic base, the fishery resource in particular, is being depleted and in critical condition; thus, needs to be replenished and its aesthetic value and abundance restored back to its former condition.

The Haribon CBRM operates on the premise that the community perceive the need to protect the resources and that they are interested to work together towards sustaining the resource base to further improve their economic, socio- cultural, political and ecological well-being. Ultimately, the local community is seen as the effective managers who can best protect and develop the natural resources.

### ***Major Components***

1. **Resource Management and Planning** - includes the identification of a site ideal for sanctuary and reserve establishment, passage of a barangay resolution and municipal ordinance, development of management mechanisms, acquisition of necessary equipment and facilities and clarification of work relations among other concerned authorities in the locality.
2. **Research and Monitoring** - includes the collection of baseline environmental and socio-economic data; monitoring of project results and impacts through surveys of substrate and fish population among other data.
3. **Community Organizing** - identifies the community's needs and objectives, develop the people's confidence and will to work toward meeting and achieving them, takes appropriate action, and in so doing, extends and develops cooperative and collaborative attitudes and practices.
4. **Community Education** - provides information and raises community awareness about key topics/issues.

5. **Support activities** such as facilitation of construction of physical structures and development of alternative livelihood.
6. **Linkages and support of outside agencies and groups** to encourage active participation in project activities and to build responsible roles for concerned NGOs and government.

### *The Marine Conservation Project in San Salvador Island (MCPSS)*

#### *Brief History*

In late 1980s, the fishing community of San Salvador Island faced the same problems and challenges typical to similar communities in other parts of the Philippines: rampant use of destructive fishing methods, declining fish yields and disappearing corals. The condition of the coral reef of San Salvador Island in particular, correlates with an assessment of the Lingayen Gulf coral reefs. The studies by McManus (1988) showed 37% living coral cover. Gomez and Yap (1982) indicated that out of 12 reef sample stations in the province of Zambales, two were in good condition (50-74.9% living coral cover), three in fair condition (25-49.9%) and seven in poor condition (0-24.9%). Included in the latter was San Salvador's coral reef.

Given this backdrop, the Marine Conservation Project in San Salvador (MCPSS) aimed to raise the absolute number of fishes on the island's fringing reef and increase the fish yields of local fishers through the establishment of a fish sanctuary and a surrounding traditional fishing reserve area. The fish sanctuary was declared completely off limits to any form of fishing.

Implementating a marine resource management plans however could not be forced/imposed on the residents. Hence, one of the objectives of the MCPSS was to strengthen the capability of the local fishers through education and community organizing.

Realizing this meant that a slow but productive effort to gain maximum results in the community's socio-economic, environmental and political life is necessary to convince them that they can be effective managers of their resources. An encouraging move was the Memorandum of Agreement (MOA) signed April 4, 1989 between the Jaime V. Ongpin Foundation Inc., Municipal Government of Masinloc, Department of Agriculture - Masinloc, Haribon Foundation and the Marine Conservation Project Staff and the *Lupon ng*

#### *Tagapangasiwa ng Kapaligiran (LTK).*

Strengthening this MOA was the local government's issuance of Municipal Resolution No. 56, Series of 1989, supporting and allowing the establishment of Marine Conservation Project at

Barangay San Salvador. The said resolution was approved by the local Municipal Council on June 19, 1989.

### *Site Profile*

#### *The Environment*

San Salvador is an island barangay with an area of 380 hectares. It is about two kilometers west of Masinloc, Zambales in the South China Sea. Except for the east coast, which was once lined with mangroves, the island shoreline is white sand beach. The hilly interior is approximately 30% secondary growth forest, 60% rice fields and 10% mango trees.

Off the western, northern and southern coasts are wide reef flats dominated by sea grass beds with various species of algae. The crest of the fringing reef where most coral growth occurs shows the effect of a strong wave current with deep spur and groove formations dominated by massive and encrusting coral types. Those areas with the more delicate branching corals have been heavily damaged by dynamite and sodium cyanide use. Substrate survey ranges from 5% to 50% living coral cover with a mean of 20.7 (Ridao et al, 1990).

The residents of San Salvador Island have long been suffering from the effects of depleted coastal resources. An unfavorable offshoot is poverty from which emanate related problems such as malnutrition, illiteracy, poor education, lack of sanitary facilities, inaccessibility of basic health services, and absence of alternative livelihood, among others. Declining catches have led a good number of residents to succumb to over harvesting and illegal fishing thru use of explosives, sodium cyanide and fine mesh nets. These practices coupled by heavy siltation from the denuded forest of Ambles and agricultural run-offs have led to further decline in fish catch.

Marine biodiversity was ultimately affected as coral reef destruction proceeded unabatedly. Organisms like sea turtles and giant clams became extinct locally. Worse, fish density dramatically declined driving small fishers to go beyond their traditional fishing ground. Ineffective law enforcement or the lack total of it has equally contributed to the sorry state of the coastal resources. With 60% of its total population deriving their livelihood solely from fishing and about 36% switching between farming and fishing, the continued destruction of marine living resources has become a matter of survival for the poor.

### *The People*

The residents of San Salvador Island may be categorized into three distinct cultural groups, i.e., the native Zambales who reside in the northwest and southeastern portions of the island; the Ilocanos and Pangasinenses who reside in the northeastern portion of the island; and the Visayans who inhabit the southwestern part of the island. An estimated 1,519 people belonging to 395 families resided in San Salvador in 1992, with the Zambals comprising about 50% of the population, the Ilocanos and Pangasinenses about 20%, and the Visayans, 30%. Zambal is the main dialect used in the island.

Most people live along the coastline of the barangay which is distinctly divided into sitios. Occupation, cultural background, and family linkages are fairly homogeneous within each sitio. Striking differences among sitios are observed and manifested. Mostly people engaged in aquarium fishing inhabit a sitio called Cabangun. Many of its residents came from the Visayan region. They started to migrate to San Salvador Island in the 1960s but had difficulties integrating with the Zambal community. This was rooted in part to cultural differences and to resentment among Zambals against the use of sodium cyanide in catching aquarium fishes, a trade that gives the Visayans a higher average monthly income compared to those who use traditional and legal fishing methods (Buhat, 1994).

However, the introduction of nets in aquarium fish gathering led to many families shifting from sodium cyanide use fishing with nets. This paved the way for the partnership of all island residents in managing their coastal resources. The people through the *Samahang Pangkaunlaran sa San Salvador* (SPSS) and the power vested on them to perform citizen arrest, boldly protected and managed the coastal resources in San Salvador (Haribon, 1994).

Practically all of the household heads fish for their families' sustenance, with each household owning at least one motorized or manually operated *banca*. Many of them support their dwindling income from fishing/aquarium fish gathering with inland farming of rice, coconut, mango, and other crops; and through other jobs in Masinloc, such as fish vending, tricycle driving, and other occasional odd jobs.

### *The Community-Based Coastal Resources Management (CBCRM) Approach in San Salvador Island*

**Community Entry.** Haribon's first community worker arrived in San Salvador in 1987. At that time, most people in San Salvador were so pessimistic that positive changes in both social and

environmental order of the community would come about. The barangay was even cited as being poorly organized and underdeveloped compared to the mainland barangays of Masinloc (Cristi, 1988).

A barangay council member who was then also connected with the Bureau of Fisheries and Aquatic Resources (BFAR) gave his unwavering assistance to the community worker. He had a good understanding of the historical roots of resource degradation in San Salvador, tracing how use of illegal fishing devices were introduced in the island and thrived through the years.

### *Preliminary Resource Base Activities*

Development activities commenced through the community worker's integration and familiarization with the community's dynamics. Intervention was initially aimed at restoring the abundance and aesthetic value of the coastal resources. Auxiliary activities like fish census and snorkel surveys ensued to be able to gain an initial understanding of the resources' current status. This greatly helped in the formulation of future undertakings.

Surveys conducted showed that live substrate cover ranges from 5 to 50% with a mean of 23% for the whole island. Table 1 shows the findings of the substrate survey in the least damaged area, which was declared a sanctuary, and the surrounding traditional fishing reserve area.

The condition of the resources called for drastic but well-grounded action. The fast deteriorating coral reef situation (as shown on the surveys conducted) inspired the worker to suggest the idea of establishing a marine sanctuary, reminiscent of the experience of Silliman University in Apo Island. This was the best possible management scheme conceived at that time and was brought to the people for consultation.

### *Identifying People for Core Group Formation*

The formation of the core group occurred very naturally in the island. Experiences on the drastic decline on fish catch and the foreseeable positive impact of a marine sanctuary in preventing further marine resource depletion convinced some people of the need to pursue such project. Consequently, five people decided to bond together in order to translate the existing discontent on the current state of the resources into both preventive and curative actions. They later on composed the "core group".



The arrival of another community worker in 1988 has helped put greater social dimension on the proposed marine conservation project. The core group was empowered through environmental education using both the formal and informal approaches.

### *Exposure Trips*

To concretely elucidate the potentials and benefits of a marine sanctuary, a cross visit trip to Apo Island in Negros Oriental was conducted. Core group members went along with the community workers to study painstakingly the processes undertaken by the people in setting up a marine reserve. The visit was in itself, a venue to see tangibly the way a community meaningfully address resource-based problems.

The trip was an unforgettable experience for those who joined it. Members of the core group were virtually encouraged to come up with the same strategy especially in line with the purpose of resource restoration and enhancement. Unknown to those who joined the exposure visit, the trip would be a trailblazing event that will become the instrument leading to a broad-based integrated coastal resource management plan for the whole Masinloc and Oyon bays.

### *Environmental Education*

Environmental education played a key role in the establishment of the sanctuary. After the trip to Apo Island, the core group evolved into a committee called *Lupong Tagapangasiwa ng Kalikasan* or LTK, (Environmental Management Committee). The members themselves (fresh from the Apo island trip) shared convincingly the role of marine sanctuary in coral rehabilitation and enhancement of dwindling fish resources. Information on marine biodiversity and ecology shared during formal and informal studies to core group members were in turn relayed to the island residents.

With the MCPSS in mind, the LTK drafted a resolution for the establishment of a 127 hectares marine sanctuary, which would off limits to fishing (see fig. 1). This was submitted to the municipal council in July 1989. The proposed Marine Conservation Project in San Salvador Island (MCPSS) however, initially drew strong oppositions among the locals. Resistance came from all corners of the island vehemently rejecting the proposed marine sanctuary. The LTK and community workers reaped cynical remarks and the mere sight of them made the people turn into bitter disgust.

The solution was to set up information drive and environmental education campaign. The LTK members had taken the cudgel of pushing for the MCPSS by incessantly conducting day and

night visits to convince project oppositors. Fortunately, the unwavering support and commitment of the few but dedicated people paid off. Although some people remained adamant of the project, majority eventually became convinced of the benefits of the marine sanctuary.

LTK had boldly taken the challenge of explaining to the municipal officials the biophysical viability of the project and its importance in upgrading the coastal resources of the barangay. A municipal ordinance was passed providing legal and political back up for the MCPSS.

An adaptive mechanism for the sanctuary's management was introduced soon after the enforcement of MCPSS ordinance. The rampant use of *kunay* (beach-seine type) had invited sharp criticism and contentions from the community. For many people, the gear was potentially harmful to the resources for it indiscriminately caught big and small fishes alike. A huge segment of the community classified *kunay* in the same category with dynamite and sodium cyanide for the simple reason that it posed equal threat in the marine environment.

For the proponents of *kunay*, it was not easy to give up the gear since it represented a sizeable amount of investment and had appeared to yield lucrative profits. The issue went as far as the *kunay* proponents working for the abolition of the MCPSS. They drafted a resolution on this end and went around to convince people to sign it. These people were once the active advocates of the project but turned oppositors when their interests went in conflict with that of the MCPSS. Their efforts however, were rendered fruitless as people simply rejected the resolution. In a nutshell, the use of *kunay* was disallowed in the reservation area and its users were forced to move to neighboring coastal barangays where restrictions do not exist.

### *The Installation of a Livelihood Arm*

The need to introduce enterprise development activities along with coastal resource management (CRM) was a major concern next to the establishment of the MCPSS. Parallel activities that respond to the livelihood needs especially of the displaced fishers demanded equal attention. Consequently, the alternative income committees better known as *Tulay sa Kaunlaran* (TSK) was formed.

Two activities were undertaken by the TSK: the loan assistance program and swine fattening/rearing project. The fund came from Jaime V. Ongpin Foundation Inc. channeled through the barangay council. At least 10 families received piglets while a number of people have availed of the loan assistance program. In upgrading organizational development skills, leadership and

planning workshops were conducted. These were geared at enabling the committees be at par with the demands and requirements of their roles and functions.

Commendable intentions and ends did not always lead to a happy ending though. Conflicts cropped up especially when the management of the projects was placed in the hands of the people. These worsened with the inadvertent recall of the community workers at the time that the project was on the verge of difficulty coupled with TSK members still building their competencies. As a result, pigs were either butchered during special occasions or sold prematurely because of pressing financial needs.

The same befell the loan assistance program. Those who borrowed were not able to pay back. The TSK sought the intervention of the barangay council to run after people with unpaid debts. And since the long overdue opening of the consumer's cooperative store had been frequently postponed, the TSK chairperson decided to use the remaining grant to supplement the capital build-up of the members to pursue the opening of the cooperative store.

In essence, previous livelihood initiatives were seemingly a fiasco. The projects did not flourish mainly because of TSK members' limited skills in handling enterprise development. The TSK members were overwhelmed by the immense responsibility of sustaining and developing the activities not to mention their inadequate capabilities, which did not match the actual work requirements. The lack of proper orientation and appropriate values and foresight toward livelihood activities accounted to why the aforesaid projects fizzled out.

### *Keeping Up The CBCRM Fire Burning*

A lull period of roughly eight months put the work at a standstill in Zambales. A feeling of apathy gripped the members to greater indifference. The formation of a local organization free from the clout of the barangay council remained a primary concern in the island. If and only if an organization exhibited a strong representation of all sectors and independently pursued developmental activities could the ideals of CBCRM be realized? Such was the resounding theme all throughout the evolution of the island populace into a collaborative coastal manager.

The committees were not ready for the changes that swiftly overtook the community. Illegal encroachment in the marine sanctuary was becoming a serious problem. A ruined training center and other issues were simply too much for the committees to bear. Members of the TSK were astounded to have encountered violators armed with guns. Adding pain to injury was the fact that the organization remained subservient to the barangay council. To break free from the latter's

shadows was the only way if they would have to be recognized as an independent local organization pursuing its own programs and plans.

Although quite willing to police the sanctuary even to the extent of losing their own lives, members of the LTK were forced to get the assistance of the municipal officials the Mayor particularly because of the growing threats from the violators. As a result, a Philippine National Police (PNP) detachment was deployed at the interior of the island. It was later on decided by the barangay council that the PNP along with the local guards could better man the MCPSS if the detachment is posted right in front of the sanctuary. However, the PNP detachment did not last that long. Connivance of some members of the PNP with the violators worsened the situation and accounts of illegal encroachments in the sanctuary alarmingly went up. Members of SPSS agreed to bring the matter to the authorities, which led to the detachments, pull out.

A local organization called *Samahang Pangkaunlaran sa San Salvador* or SPSS (Association for Development in San Salvador) was eventually formed. It came out as a result of leadership training. This was a response to the need for setting a clear- cut boundary between a local organization and the barangay council. Thereby, is geared towards increasing the people's foothold on the resources increasing not just their access to it but also their role as stewards and managers of the environment.

### *Strengthening of SPSS*

The newly formed organization was initially dormant. In fact, traces of an organization can hardly be found in the community. Only the MCPSS was then the visible project constantly taken care of by people whose commitment to resource conservation and development appeared unwavering. Aside from the name SPSS, no sign of vitality could be felt of an organization. The meetings conducted were poorly attended with a maximum of only 10 appearing in meetings.

Attempts to formalize and mobilize a local organization had always been derailed by resentment and bitterness especially within the leadership of TSK and LTK. Political and cultural schisms not to mention the internal bickering among members reinforced the rift within the community.

### *The CBCRM Framework*

If there was one activity capable of unifying people, it was the MCPSS. It served as a symbol of commitment that reckoned people to begin with what they have started concertedly regardless of how unfavorable the present circumstances were. The marine sanctuary reminded the

people of their attempt to preserve and conserve the environment. The MCPSS was an essential hallmark that enabled the organization regained the spirit that once spurred them to establish a Marine Conservation Park. It was once the instrument that put people together towards an agenda on resource management; it was again used to awaken a sense of unity in the organization to continue its campaign for a sound resource utilization and management.

Sustaining the program required a strengthened organization. Support CBCRM mechanisms were installed to be able to spot rights on target the precise areas of the organization, which needed development. The mechanisms were rooted from a solid environmental orientation expressed through a Community-Based Resource Management (CBCRM) framework. The said framework graphically describes the components that respond to the common issues and problems typical of a resource-dependent community. The facilitating mechanisms/components are built in the framework in order to operationalize the goals into realistic and achievable targets.

## **Resource Development**

### **Community Organizing**

### **Resource Management**

#### **People's Empowerment**

#### **Economic \ Livelihood**

#### **Development**

#### **Enterprise Development**

### *The CBCRM Implementation Arms*

#### *Community Organizing*

Community Organizing (CO) in the resource management setting underscores the bonding of people as inspired by the need to enhance the degraded resources. Coastal resources made up the livelihood base in San Salvador. Further exploitation of the resource base would end in starvation and non-access to life's necessities (e.g., decent shelter, proper education, etc.) for its residents. This perception drove the members of SPSS to act concertedly and collectively to set desired changes and development goals into right context and perspective.

CO was in itself a significant stride towards empowerment. It was where people broke away from apathy in order to articulate their minds and hearts out. The act of bonding provided a liberating experience through which people discovered their talents, opportunities and resources at

their disposal, heightened collective awareness, which inspired them to take relevant courses of actions. An organized group equipped with a proper mindset, values and principles was sure to move forward to empowerment, self-reliance and responsible managers of their resources. This was the underlying principle that set the trend and premises of community organizing in San Salvador Island.

On this score was strengthening done to SPSS. A new breed of leaders was highly called for in reviving an organization from its downward trend. Community organizing had to be reset to spotting of a new set of leadership to reconceptualization of approaches and strategies in project implementation. The basis for selecting the second set of leaders of the organization was contingent on the following criteria:

1. Showed keen interest on and passion for coastal resource management;
2. Regularly attended to meetings and activities of the organization;
3. Exhibited leadership potentials and at the same time was respected in the community;
4. Was willing to learn and share learning as well; and;
5. Possessed a strong belief to change and were willing to be an instrument of development both for the organization and the community.

Correspondingly, the structure of SPSS was set up. This was derived from the vision, mission and goals formulated during the planning workshop of SPSS (see Figure 3). Election of officers also followed. New officers were added in the roster of SPSS leadership while quite a number of former committee heads still gained a vote of confidence from the general membership.

### *Advocacy and Networking*

Advocacy and networking were the means of taking local issues to a wider scope either for alliance building or for ventilating specific concerns to the public for common scrutiny. This was used to elicit support and foster partnership with groups upholding similar concerns and interests.

The coal plant issue in Masinloc for instance, has opened a threshold of communicating their concern for the environment and for airing out hostilities on environmentally unsound projects. The people in San Salvador witnessed the changes in their fish catch and its increase was attributed to the fish sanctuary. There is therefore no iota of chance that projects such as the coal plant will pass without resistance from the island's residents.

Advocacy and networking enabled the people to understand organizations advocating for similar agenda and the same development activities. It was a source of strengthening and

opportunity for the expansion of the SPSS as the organization eventually took bigger issues and concerns.

A network bonding all the people's organizations in Masinloc has been facilitated. It was referred as the Federation of Environmental Managers in Masinloc. The formation of the said federation was greatly influenced by the ongoing resource management projects in San Salvador. The federation aimed to translate the experience in the island into a larger scale-the Masinloc and Oyon bays. The federation envisioned its role as the principal managers that will be primarily responsible in policing, manning and implementing the policies and regulations for the whole bays. These functions are to be done along with the support and assistance from the local government units, (LGUs) non-government organizations (NGOs) and government agencies (GAs).

### *Sound Resource Management*

Management of the resources was primarily viewed in terms of giving value out of its receding fertility. Thereby, the setting up of MCPSS was aimed at enhancing both the food and cash security of the people. SPSS being a staunch advocate of proper resources supervision, valued the nature as posing life of its own. This recognition was nourished by in-depth attachment-building exercises aimed at commanding a deeper homage and recognition for the resources. Thus, environmental education sessions were underscored to reiterate stewardship principles and proper values on resource management.

Symbiotic and co-operative relationships among species on land and sea were vividly related in the environmental education sessions and was espoused by the people's own experiences as fishers and farmers. Consequently, a comprehensive management plan was formulated as part of the organization's expression of their renewed relationship to nature.

Restoration of the nature silted by tree planting, mangrove rehabilitation and restocking of giant clams were initiated by SPSS. A regular boat and foot patrolling corroborated resource management while most members of LTK voluntarily underwent warden training in the bid to police the whole of Masinloc and Oyon bays.

SPSS reconstructed a training center, which they referred to later on as "home for development". The training and education activities on the use of nets for catching aquarium fish had also contributed to the dramatic obliteration of sodium cyanide. The resource management theme of SPSS was "sound resource management is equals to sustainable livelihood".

### *Enterprise Development*

Enterprise development is a bottleneck in any development endeavor. Not so many groups could claim total victory when it comes to a successful livelihood enterprise down in the community level. The same difficulty is expected to be met in San Salvador especially with the recent history of unsuccessful livelihood projects in the island.

In spite of perceived difficulties in implementing enterprise development, the current phase of work revealed timeliness to go into livelihood projects. For one thing, there has been an established resource management regime in the island through the on-going marine conservation project. Relieving the pressure on the marine resources entailed parallel in-land activities that could either supplement the livelihood or provide economic alternatives to people.

It was thereby appropriate to temper the existing resource management activities with concrete viable economic enterprise. The past experience provided the lessons while the vision and mission set the realistic goals. The workers, however, decided that any activities done within the livelihood premises must be well-considered and executed with great care and accountability.

This required that value clarification and formation must go together and that any possible livelihood activity should meet the following:

1. Started from and within the people's available resources;
2. At least a good number of members have knowledge of, skills and experience on the project;
3. Must be transferable, viable and marketable if the project is introduced by outside institutions;
4. Premised on the people's needs and problems; and;
5. Environmentally sound.

A list of possible livelihood activities was deliberated upon based on the said criteria. Proposals ranging from swine raising, poultry, handicraft, loan assistance, cooperative expansion, *palay* buying, mushroom culture, to mention a few, have all been considered and thoroughly studied. These were narrowed down to only two livelihood options: cooperative expansion and *palay* buying. The selection process subscribed to the criteria and believed to be beneficial not only to members of SPSS but also to the community in general. A feasibility study has been prepared by the SPSS illustrating the mechanisms and flow of project implementation. The feasibility study was presented and defended to Haribon program coordinators.



The cooperative expansion was soon undertaken after the fund was released to SPSS. Two stores were constructed other than the existing store of SPSS in one of the sitios in the island. The existing store was however buttressed through the supplemental fund given to the store. At that time, the store was assailed by problems like increasing uncollected debts and internal conflicts among the members. The fund gave the members the impetus to regroup and assess the areas which required improvements. Volunteer members who acted as store caretakers managed the cooperative stores. They did not receive allowance or privileges except for a 10 percent share from the annual gross income of the store. Preliminary training and education activities were provided prior to the release of funds. Refresher course on cooperative management was given to members backed up by two consecutive exposure visits to the successful cooperatives in Central Luzon.

SPSS ventured into *palay* (unhusked grain) buying after the coop expansion. With a very limited capital amounting to only P65, 000.00, enterprise development activities were designed in a way that it would bring sure gains and returns to the organization while servicing the needs of the community. The concept of *palay* buying came from the experience of fisher-farmers who accounted for the sector with very minimal income, and sometimes incurred losses after selling their grain to the local traders in the town proper. Local traders chiefly dictate the price of grain while the capital input invested by the farmers was hardly recovered due to existing lopsided systems. A sizeable amount is invested by the farmers from planting to harvesting, to transporting of unhusked grain to the mainland unmatched with the rapid increase of the price of husked grain.

On the other hand, this has rendered many people in the island unable to cope up with the said rapid increase. As such, *palay* buying was proposed by most members and studied painstakingly by the livelihood committee. A flow chart has been made as to how the livelihood committee would go over the project. The committee made the buying price of grain in the island reminiscent of the prevailing price in the town proper. This was relatively better as farmers were spared from expenses in gasoline, porters and tricycle fares. *Palay* screeners were posted in four sitios in the island while the unhusked grain was gathered at the center cooperative store.

Eventually, the husked grain was retailed at the coop stores, pegged at a very reasonable price. SPSS members made it clear among themselves that the price of rice should never be influenced by the price increase in the town proper. The price of husked grain must always be subject to the volition of the general assembly and must never be detached from the real intention of providing service to the poor and marginalized ones. The profit that can be gained out of the

project was viewed more as a means to sustain the service of affordable rice for the island's populace.

A carabao was bought by the organization. This was meant to render service to the cooperative stores by transporting merchandize to and fro the stores and the port where goods are generally unloaded. This was particularly true to the store at the center located at the hilly interior of the island where members had to carry up the merchandize especially during the rainy season. Besides, hiring porters would exceed three times the price of the carabao if computed in a span of one year. Hence, SPSS decided to buy the carabao which was also used for fund raising purposes of the organization especially during the planting and harvesting seasons.

The organization also tried mango processing. The Department of Science and Technology sent a team that taught the members of SPSS the ways and techniques of fruit processing. The project was undoubtedly lucrative. However, lack of know-how in packaging and in adeptness in quality control made the proposed project subject for further studies. SPSS was however convinced that mango processing is implicitly a lucrative venture.

Given the skills and capital to support the enterprise, it is deemed as a reliable supplemental activity that will help stabilize the price of mango and avoid possible waste especially on its peak season. The market value of mango usually plunges down during the peak season. Furthermore, boxes of mangoes meant for export are being rejected because of failure to pass the international standards. These were seldom consumed in the local market. If excess or rejected mango can be processed, it will not only regulate its price, but livelihood options out of the product can also be explored. Thereby, mango processing was seen as very promising and viable economic enterprise in the island.

### *Training and Education*

Three basic stages characterized the work in the island. These were organizational formation and strengthening, capability building and actual implementation of development plans.

Training and education sessions were basic to all stages. In fact, these were designed from the onset to provide skills upgrading and enhancement opportunities and at the same time serve as a momentum-building initiative.

To ensure that any intervention in education and training will coincide with actual community needs, a training needs analysis has been conducted in informal forms through meetings, informal discussions and house visits.

Values clarification and formation were intrinsically introduced and underscored in the training and related community education. This was translated into “attachment-building” exercises aimed at viewing the environment as possessing life of its own and vulnerable to destruction and death. Attachment building was integrated in the seminars and training.

Attachment building actually came out of the need to deepen the commitment to resource management. The recognition of resources as God-endowed and the stewardship given to mankind over the resources was emphasized time and again to make it part of people’s day-to-day life.

The envisioned expansion of a cooperative through the satellite stores in key areas of the island led to cross visits to successful cooperatives in Central Luzon. Training and education sessions covered environmental awareness to actual skills enhancement which capacitated SPSS to smoothly move towards the implementation of enterprise development and resource management activities.

#### *Learnings, Recommendations and Conclusion*

The coastal resource management experience in the island of San Salvador has bore fruitful results in terms of people taking direct responsibility to their own development. Most importantly, the people have learned the importance of unity through the local organization as an essential prerequisite to change and genuine development. The coastal resource management initiative in the island has undoubtedly elevated the appreciation of people on the natural resources. God and a heritage from the previous generations for instance, viewed not just as a livelihood ground but also as endowed the marine resources. Thus, was taken care of by the people with homage and through responsible management.

The whole community organizing initiative in the island was directed towards resource restoration and development. Its concrete end goal was biodiversity conservation. The resource management experience on the other hand, was one of a classic struggle that typified a community endeavoring to save the sea as its only major source of livelihood from further degradation. It was however realized in almost five years of coastal resource management experience that conservation efforts must not be detached from the concept of stewardship, values and culture other than its usual character as a livelihood base.

The position taken by the local organization to put up a marine conservation project even if it meant giving up a sizeable fishing ground reflected a renewed understanding of their role and relationship to nature. The commitment to incessantly protect and soundly manage the project was a

translation of their knowledge and practical understanding of livelihood in the resources as well as its cultural, recreational and spiritual values.

Community organizing as a strategy in facilitating a community-based coastal resource management program could not have been that effective without the provision of equally important components such as: training and education, enterprise development, resource management, and networking and advocacy. These components formed the whole essence of a CBCRM agenda in the island. It helped the people realized and recognized the state of the local environment and at the same time, encouraged them to respond to the encompassing problems usually at play in resource-dependent communities.

The CBCRM components have effectively enhanced the local organization's capability for resource management and its skills to come up with equally relevant undertakings. In-house or organizational strengthening was underscored which included awareness-building and values formation. The ongoing resource management activity has in fact included in-land resources. Livelihood options were derived from either the natural resources or the collective material resources of the people as in the case of cooperative, *palay* buying and the pending mango processing enterprise. The principle was plain and simple " start where the people are and build on what they already have".

The fast depleting resources can be attributed to cash and food security issues. It was thus appropriate that economic or livelihood options stemmed from the resources per se. The question of control over the resources must be underscored in the island in order to impress among the members their intrinsic responsibility of drawing up blueprints in reference with the normative methods the resources must be managed. The experience of establishing the marine sanctuary must invoke greater participation from the people especially in the formulation of policies and plans for resource management. As such, more people can articulate their experiences and conditions as a jump off point in mapping out relevant coastal development plans.

Learnings were drawn from the five-year wealth of CRM experience. For one thing, it entails a personal commitment and a clear foresight on the part of the worker to be able to last and live in the area without the usual comforts of electricity, water supply, among others. Moreover, the swift turnover of staff has often bogged down the activities in the island. Nevertheless, it is difficult to establish whether this has a correlation with the geographical location of San Salvador. Its implication, however, has tremendously affected the activities and in fact, placed the organization in a precarious condition. It was the same reason why the committees namely, the *Tulay sa Kaunlaran*

(TSK) and *Lupon ng Tagapangasiwa ng Kapaligiran* (LTK) remained subservient to the barangay council and took quite some time before it finally evolved into a legitimate local organization.

The untimely provision of funds did not actually help SPSS. The livelihood fund was given in good faith and meant to enable the organization balance the ongoing resource management activities with viable economic enterprise. The fact that the livelihood committee does not have the required project and financial management skills as well as the foresight on how to develop the project, it was almost certain that the activity was bound to failure. The case of the loan assistance and swine-raising program almost created a dichotomy among the people in the island. The barangay council in fact was the one going after the people with unpaid debts. This could have been avoided had the formation and strengthening of a local organization been prioritized prior to any livelihood undertaking.

For resource management activities to further thrive and truly diffuse to other coastal barangays in Masinloc and in the neighboring coastal towns, initiatives ought to be persistently in line with the principles of empowerment, self-reliance and sound resource management. Empowerment in the sense that people should have the foothold to draw the development processes from conceptualization, implementation to evaluation. Laws specifically on environmental protection and management must be in the hands of the people to implement and pursue, in safeguarding the environment as well as the well-being of people largely dependent' on the resources for subsistence. SPSS has to proactively go into policy advocacy in order to regulate laws and policies reflective of the small farmers' and fishers' interests.

Self-reliance meant that small fishers/farmers must constantly be afforded with means and capabilities of breaking away from their dependency to those possessing the political and economic power. SPSS has to constantly supplement the assistance it received from assisting institutions\organizations with the members' own indigenous skills and resources for sustainability and self-sufficiency.

The organization will surely taper off in terms off its intensity and aggressiveness in the activities it has undertaken. Some members might wax cold and issues of apathy and internal conflicts might again resurrect. It is thereby vital that the organization have a full grasp of these to avoid reacting to mere symptoms, and apply lasting solutions by getting into the roots of the problems. There are three suggested propositions in order to maintain and further strengthen the coastal resource management endeavor in the island:

1. Extension of community organizing to other coastal municipalities and barangays in Zambales;
2. Continuous capability building; and
3. A comprehensive livelihood program.

### *Community Organizing*

Community organizing is a recognized prerequisite to any community endeavor. CO is a vital and a must an approach to contextualization of development interventions. Consultations would not suffice for the people's involvement in designing appropriate resource management schemes. The relationship between people and the environment and the proper use of the latter's bounties would only bring out its truest meaning and essence by giving the marginalized people the freehand to determine their symbiotic relation to nature and their responsibility to take care of the latter. This is delineated well in the CO activity as people learned of their inherent rights to protect and manage the resources as the rightful stewards. To make this happen, the marginalized sectors, particularly the fishers and farmers have to reassess their condition taking into account the state of their resources and how a lopsided relationship evolved from this. Awareness raising is an essential element in organizing. This will enable the stakeholders to be more critical, analytical of the current conditions, and expressive of desired changes.

Basically, this brace up the commitment of the people as they are involve in issue/problem scanning to coming up with activities and projects congruent to the identified needs. The call for SPSS is to always go back to the basic. What consolidated them into an organization must be kept afresh if this is to bind them continually. Replicating the CRM experience however, would need the community organizing skills of some leaders in order to diffuse the CRM initiatives.

### *Continued Capability-Building*

Continued capability building is an essential component in enabling the local organizations achieves self-reliance, empowerment and proper resource management and utilization skills. Conscious efforts must be done to identify the organizational needs and skills needed by SPSS to further equip the members with capabilities tantamount to its growing task. Capability-building both in the formal and informal methods, should include deepening of social analysis, strengthening of relationships, and value prioritization. These have to be done in the framework of CBCRM with due emphasis on the sustainable development perspective.

### *Value Formation*

Just as systems and methods are important in CRM, and so are right values required for a successful undertaking. The SPSS has to clarify its values and relate these with the way it perceives the environment must be treated and managed.

Degradation and exploitation of resources can be attributed also to erroneous values motivated by greed and misconceptions on the environment. In this light, collective values are to be honed up centered on team building, responsible stewardship and appropriate resource management orientation. It is high time that the members of SPSS themselves share their values to other communities. In so doing, the organization has to gather and institutionalize the values possessed and developed by the members in the years they have been involved in resource conservation.

### *Enterprise Development*

A resource management regime is already in place in the island. The Haribon has resolved that it could only embark to livelihood development only when a resource management alternative is already established and operating in the community. In the case of San Salvador, resource management can be considered one of the strongest components of the CBCRM framework. Needless to say, SPSS has significantly responded to the challenges of maintaining and developing the marine sanctuary.

Enterprise development, however, remained a component of CBCRM that required further development. The cooperative has surely improved. Gauging from the increase in annual earnings, and capability to put up its own concrete cooperative store and expansion of basic services - all indicated a growing cooperative enterprise. However, resources that can provide supplementary income remained unexplored or improperly studied. The case of mango processing is an example of a business enterprise with so much potential but failed to materialize mainly because this was thought of only when the project was about to terminate. Up to the present time, the organization is still grappling with the real concept and meaning of enterprise development. The need to start off with a more concrete small-scale enterprise must be given more emphasis and time especially if the organization is to develop its skills in economic/livelihood development.

A comprehensive enterprise development program ought to be designed in order to supplement the livelihood derived from fishing. A community like San Salvador that could actually

boast of a rich and diverse coastal resources, should really pay serious attention with the ways and means the resources could be translated into viable economic activities. If ever San Salvador would receive another funding, it is highly recommended that its thrust be focused in enterprise development. After all, what is called for right now in the island is an alternative economic base that could go alongside with resource management activities.

The coastal resource management experience in the island has uniquely described the people's commitment in bringing about desired changes in the coastal resources. The problems and needs encountered and experienced by the island's populace were the factors that translated these into organizational vision, mission and goals. In scaling up the resource management agenda in a municipal and provincial scale is to put the whole CBCRM framework in operation. This connotes that the activities in San Salvador should convincingly set a good precedent worthy enough to serve as a model to other communities. Support from all institutions whether private or government should come in to be able to effect immediate but substantive transformation to the fast decaying natural resources.

Lastly, SPSS ought to focus its foresight to giving services to other resource -dependent communities. Mere testimonies of members on how they came up with a resource management alternative and their dedication to spur an island-wide development is already a story where people can draw learning and inspiration.

## **REFERENCES**

- Buhat, D. 1994. Community-Based Coral Reef and Fisheries Management, San Salvador Island, Philippines.
- Christie, P., White, A & Buhat, D. 1994. Community-Based Coral Reef Management on San Salvador Island, Philippines.
- Fellizar, F.P. Jr. 1993. Community-Based Resource Management: Perspectives, Experiences and Policy Issues. ERMP Report No. 6. Environment & Resource Management Project. Philippines.
- Fox, J. & R. J. Fisher. 1990. International Irrigation Management with Farmers Participation: Getting the Process Right in Community Organization and Government Bureaucracies in Social Forestry. Hawaii. 1990.



Gomez, E. O., H. T. Yap. 1982. Coral Reef Degradation and Pollution in the East Asian Region. Marine Sciences Center, University of the Philippines, Diliman, Quezon City.

Haribon. Accomplishment Report for Coastal Environment Project. 1994.

Leaf, M. J. 1991. Elements of Sustainability of Local Development. A Paper Presented During the Commemorative Programme for the 20th Anniversary of the United Nations Centre for Regional Development. Japan. 1991.

McManus, L.T. 1988. The Coral Reefs of the Lingayen Gulf: Challenge to Resource Management. Tropical Coast Area Management.

Ridao, A. R. & Cura, Rose Tan, Christie, Patrick, and White A. T., "Evaluation of the Marine Conservation Project in San Salvador Island, Masinloc, Zambales", 1991.

Romero, G. 1991. The San Salvador Marine Sanctuary. A Case Study. (Unpublished).