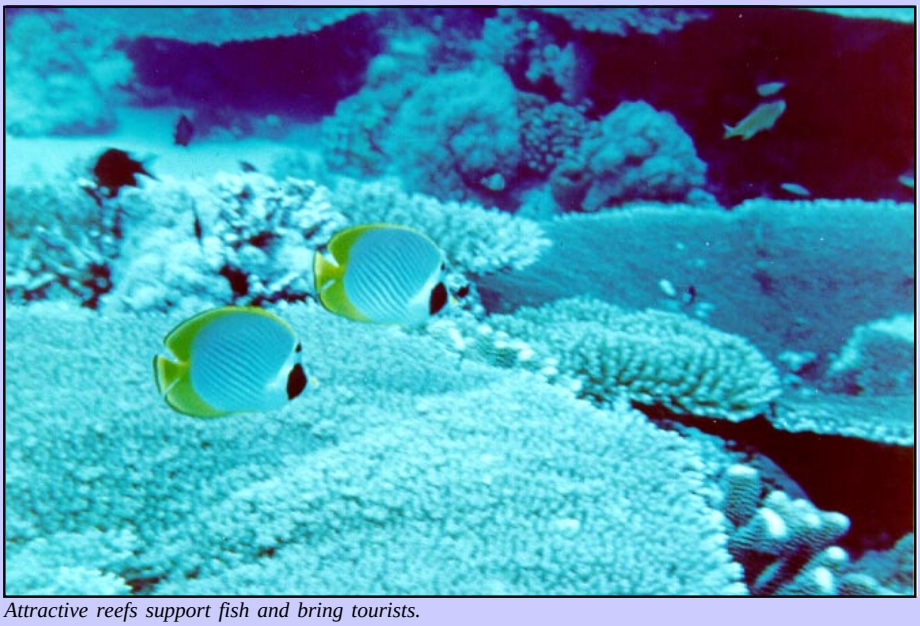

Attractive reefs support fish and bring tourists.

manage its resources. The community has already succeeded in getting the Cauayan Municipal Board to declare some 200 hectares of the Hulaohulao (the name of another giant) reef a fish sanctuary. CAMAFA, which has some 50 members, is reforesting the uplands, rehabilitating the watershed, replanting mangroves, carefully policing Caliling's coastlines and building a boat to chase illegal fishers away. It has also launched alternative livelihood activities to help raise members' incomes.

Caliling took its cue from a much-admired initiative on the other side of the island of Negros. In the eastern part of the two-province island, Silliman University, which is based in Negros Oriental's capital city of Dumaguete, has succeeded in getting people to recognize and act on the need to protect and preserve their coral reefs and marine resources.

Getting people's cooperation was not easy. Dr. Angel Alcala, former Silliman president and former Secretary of the Department of Environment and Natural resources, said: "The most difficult problem… is to convince the hungry communities (of Caliling) to protect their resources… People have a tendency to cut mangroves or remove corals because of ignorance on the roles of environment in ensuring bountiful harvests."

Alcala, 1992 winner of Asia's prestigious Ramon Magsaysay Award in Public Service for his pioneering work in the rehabilitation of the Philippine coral reefs, talked about such things as how a good coral reef produces 25 tons of fish per square kilometer annually while a destroyed reef yields less than 5 tons. But lectures could only go so far. As another Silliman faculty member observed, "Inherent in fisherfolk is the need to see in order to believe."

What clinched it for Alcala was being able to prove to the Caliling folk that what he was talking about can really come to pass. The marine biologist, who set up the Philippines' first marine sanctuary on Sumilon Island, Cebu, arranged for the fisherfolk to visit Apo Island, where Silliman University had persuaded the locals to set up a community-based coastal management program. Learning from previous experience about the need to involve local people, the Silliman team of professional community organizers worked hand-in-hand with Apo families from the beginning.

The Silliman team initiated the community-based Marine Conservation and Development Program in 1985 to enable local communities to protect and/or enhance their marine resources. The program included the establishment of marine reserves and sanctuaries. Livelihood projects, environment education activities, community development training, agroforestry and water development schemes, and outreach programs to get more communities involved were also undertaken.

Now completely in the hands of the local stakeholders, the Apo initiative has proven effective in preserving the coral reef and fisheries surrounding this small island. It has since become both a showcase and a model of successful community-based management program for other small island and mainland communities.

By 1992, most Apo fisherfolk believed that the marine reserve and

sanctuary on their island had significantly improved fishing, serving as a breeding place for fish.

CAMAFA member Leodegario Morales, an upland farmer displaced by insurgency in Negros, recalled their visit: "(There were) a lot of fish in Apo. Corals are protected. (We) saw that it was possible to protect corals and earn a good living. The people there owned appliances and good houses. The community was progressive and they have good schools."

The visitors also saw how conservation earned extra income by making Apo's rich coral reefs a major tourist attraction. Chua said, "We think we will earn more money if we can also attract tourists the way Apo has."

If Apo's community-based project has served as an inspiration to the neighboring land of the giants, another community-based movement in the Philippines has figuratively slain a giant.

Residents of the coastal town of Bolinao in Pangasinan, Philippine President Fidel Ramos' home province, have successfully barred the opening of a huge Taiwanese-financed cement plant in their community. Assurances by the proponents that the cement complex will not only be the biggest (it was estimated to cost P13.5-16 billion or over US$500 million) but the cleanest in the world did not weaken opposition spearheaded by the Movement of Bolinao Concerned Citizens, Inc. (MBCCI).

Helen T. Yap, Professor at the University of the Philippines' Marine Science Institute, says the controversy might have been the first time the community presented a really unified front. However, she believes that years of work by the Institute and others to raise the people's environmental awareness helped. The Institute has been in Bolinao since 1980, setting up a marine laboratory there. Its community-based Coastal Resources Management Project conducted educational campaigns on the recent controversy.

Yap recalled that even when they were just starting, they had more trouble selling their work to politicians than to ordinary people, even fisherfolk. "People who live on the coast appreciate their resources," Yap said. Thus, the locals readily accepted the laboratory in Bolinao, whose reefs form part of the Bolinao-Anda chain, declared as an "environmentally critical habitat" by President Ramos.

Members of the MBCCI consulted with the marine laboratory's scientists who warned that the cement plant would result in heavy dust fallout and depletion of groundwater. Potential environmental risks, particularly for marine resources, are also posed by increased quarrying, the operation of a coal-fired power plant, and pollution from cargo ships, among others.

MBCCI held rallies and wrote hundreds of letters to government officials, local and foreign NGOs, and the media seeking support for their cause. Virginia Pasalo, chair of the Women in Development Foundation, said, "We had to pray. It was our only chance."

Collaboration between experts and the local communities is also breathing new life into the waters of Guiuan in the central Philippines province of Eastern Samar. With their waters fished almost to extinction, the communities teamed up with the Guiuan Development Foundation, Inc. (GDFI), a social development organization set up by marine biologist Margarita de la Cruz to help fisherfolk.

GDFI organized the communities, promoted the use of more environment-friendly fishing methods, and introduced alternative livelihood activities. It asked experts from the Philippine Council for Aquatic and Marine Research and Development (PCAMRD) to assess Guiuan's waters and suggest solutions. On PCAMRD's recommendation, the Bagonbanua Marine Resource Replenishment Project was set up which served as a model for other marine reserves and sanctuaries in the area.

Similar community-based coastal management projects are now being launched in many parts of the Philippines. Like the ones cited, they are based on the belief that local resident resources users and stakeholders are the real coastal resource managers. Every successful project has, one way or another, transformed those closest to the resources into "decision-makers" on how best to protect and maintain the reefs, fish stocks, mangroves, and clean marine waters.

The approach is not simple. It is, in fact, quite difficult with many obstacles to overcome like poverty, growing population and weak formal government institutions. Successes, like those mentioned, are characterized by a combination of factors: strong NGO's, improved local government support, responsive donors, effective professional community-level workers and an increased willingness to try integrated approaches which link various government sectors with NGO and community groups.

A Little Less *Bahala Na*[1] in Talibon, Bohol

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Setting

When Bohol Integrated Development Foundation (BIDEF) Inc. started to work in the municipalities of Talibon and Bien Unido in the north of Bohol, the challenge to us was how to work with the fisherfolk and the Local Government Unit (LGU) in tackling the problems of an area that had once been a hugely rich fishing ground.

Talibon has one of the largest municipal waters in Bohol stretching towards Leyte and Cebu in the Central Visayas portion of the Philippines (see map on next page). It has a population of some 45,000 with an estimated 2,500 full time fishers and a further 1,000 part-time fishers. Of a total of 25 villages (*barangay*), 8 are islands, and a further 11 barangays fringe the coast. Similar to the rest of coastal Bohol, fish is the largest source of animal protein and fishing provides a medley of ancillary industries and other employment to the inhabitants of Talibon.

Fisherfolk Tales

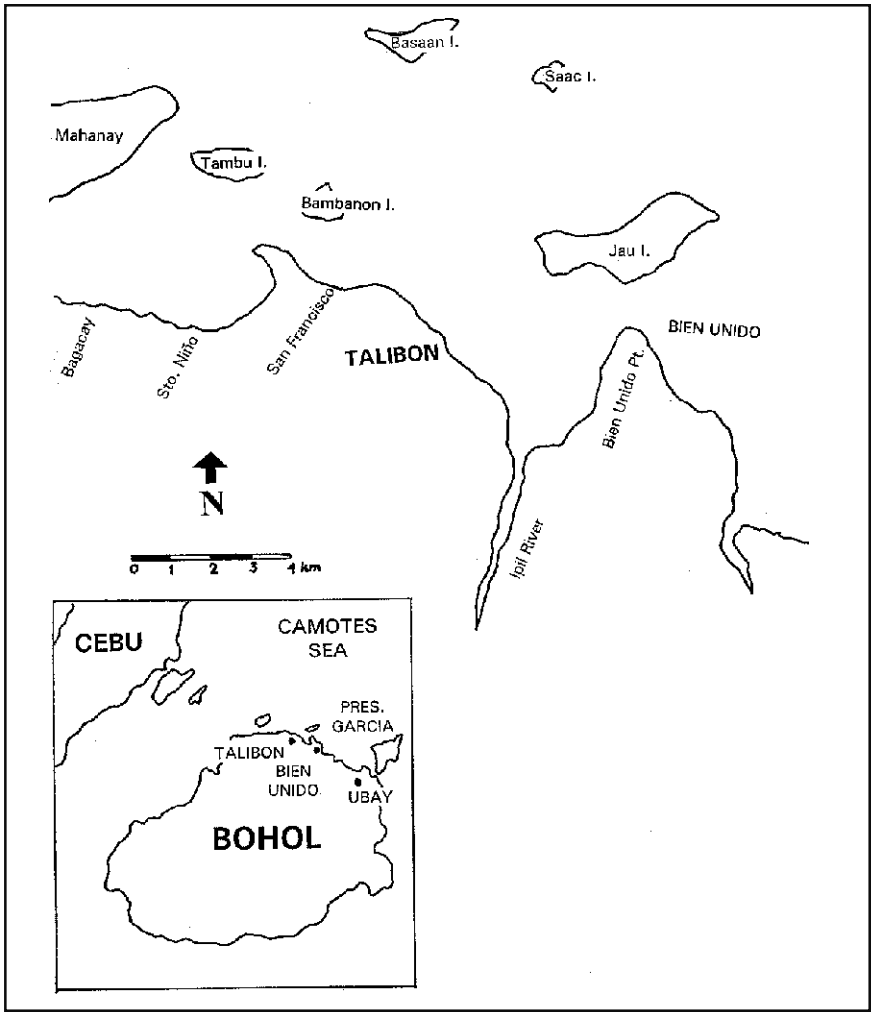
A stroll along the shoreline used to fill a basket with seafood in 30 minutes according to many elders in Talibon. Shells, crabs and fish would make easy picking along large stretches of the coastline. A lot of the elder fisherfolk are like national libraries with their store of information about the sea. They say that so much has changed in the sea in the last 40 years. For example, they describe how up until the 1950's, turtles the size of bulldozers would appear and people would flee. A local fisherfolk joke in Talibon now shows this change:

A fisher arrives at the pier clutching a live sea turtle ('pawikan'). He walks down the pier

Oyster culture strings ready for hanging in the Ipil river as part of the San Pedro small fisherfolk association's livelihood project.

[1] *Bahala na* does not have an exact English equivalent. The closest translation would be "What will be will be."

on his way to the market to sell the turtle. A local official then shouts out of his office to the fisher walking past with the turtle. The fisher gets scared and immediately throws the "pawikan" back into the sea. The inspector rushes out of the office and asks why the fisher threw the turtle back into the water. The fisher says that he thought the inspector was going to arrest him. "Not at all," says the inspector, "I was going to say that I will buy the rum if you grill the turtle as 'sum-suman' (food taken while drinking)."



MAP OF TALIBON, BOHOL.

Working With Fisherfolk Communities

BIDEF Inc. entered Talibon and Bien Unido in 1994 through a two-year community-based coastal resource management project of the Foundation for the Philippine Environment. There were many of the classic problems in the area thus, requiring as much of a multi-disciplinary approach as our budget would allow. One of the biggest problems was illegal fishing, with a good chance of seeing and hearing dynamite blasts in the morning or evening. This was accompanied by a cocktail of other illegal fishing gears regularly exhibiting themselves in the area. "Planting rice" refers to dynamite fishing in the area, with the phrase describing a newly ploughed field, giving a good idea of what a recently dynamited reef looks like.

The fishery showed classic signs of overexploitation. The size of hooks had plummeted along with the mesh size of nets since the 1970's. Fishing gears had subsequently become ever more efficient with many trawls and a variety of scaring devices being used. Illegal fishing had become a way of life, with financiers controlling much of the illegal fishing gears, credit and marketing facilities, as well as enjoying strong political clout. There was even a fisherfolk organization whose main objective was to financially help one another if they ever get caught fishing illegally. The obvious result was of course habitat destruction.

The main aim of the project was to organize the fisherfolk into strong self-governing groups managing their own resources. To accomplish this, the program focused on research, community organizing, resource rehabilitation, networking and advocacy as well as training.

After the first year, the fisherfolk were organized and registered as small fisherfolk organizations with an average of 25 households in each. These organizations were made up of household units where women and youth participation was actively pursued. A series of seminars were conducted ranging from environmental awareness to leadership training to a marine biologist training. These all had good attendance so that slowly, the fishers began to internalize new knowledge and improved attitudes. The seminars ended with barangay and municipal level coastal resource management planning weekends and various cross visits. The participants then prepared their plans for the next two years with Bidef offering a package of tools and technical help.

Management Tools Used

Some groups opted for mangrove reforestation. Between 1994-1995, 15 hectares of mangrove stewardship contracts were awarded to fisherfolk organizations and individuals. The fisherfolk were paid to collect the propagules which they planted for free.

BIDEF facilitated the installation of artificial reefs (AR) in several areas of Talibon. Some ARs were used as anti-trawling devices while others were dropped in fish sanctuary areas as aggregating devices. Indigenous attraction devices or fish shelters made from coconut fronds were also used in several sites. Bidef supplied the materials while the fisherfolk designed and built the structures. Various measures were implemented to ensure that the ARs were properly managed.

Establishment of fish sanctuaries began in March 1995 with a 3-hectare marine reserve (with "no take" and "passive fishing only" zones) declared by one of the small fisherfolk organizations. This was followed by the declaration of 5- and 8-hectare sanctuaries within the same year. Talibon now has 8 sanctuaries, ranging from 3 to 40 hectares in size. All of these are supported by approved barangay and municipal ordinances. These areas include non-Bidef sites, proving that some of the project outputs have been successfully replicated in other areas.

A livelihood programme was also started. Fishers chose what they thought would be the best for their group while the project staff provided technical services. However, some activities failed due to a typhoon in 1994 which damaged houses. A few of the organizations extended loans to members for repairs.

Four marine-based cultures failed, including that of mud crab (*Scylla serrata*), due to a variety of technical and external factors. Some of the more visible successes, however, were the classic pig dispersal, grouper fish grow-out and sale, oyster culture, *Eucheuma* sp. (seaweed) farming, sea crab culture and solar electricity.

The Role of the Local Government Unit

By 1995, fisherfolk organizations became more active. They began to do their own lobbying and networking and to access funds from on-line government agencies for their various projects. A meta-legal campaign was also waged against illegal fishing in most barangays.

The new mayor, Juanario Item, conducted a series of barangay consultations and told the illegal fishers that they all had to stop engaging in illegal fishing. In three months, the local Philippine National Police had built their own boat and begun the awesome task of arresting illegal fishers. Those arrested included not only local residents of Talibon but also transient fishers from as far as Cebu and Leyte. The LGU of Talibon has now over one million pesos from illegal fishing fines and an array of impounded illegal fishing paraphernalia which are regularly burned to ensure that they would not be used again.

Some household incomes dropped due to the arrests. For instance, in one barangay, the school attendance dropped by over 60% during the first few months of the ban due to the inability to pay the school fees. BIDEF had no funds with for this kind of assistance. Those who engaged in illegal fishing said they had to continue with their illegal trade but would be happy to stop if they could have an alternative livelihood. In response, the Mayor released small loans to fisherfolk co-operatives amounting to over one million pesos.

The Gains of Cooperation

BIDEF organized municipal and barangay Fish and Aquatic Resource Management Councils (FARMC) in 1995. Both FARMCs are waging a good advocacy campaign against the remaining illegal fishers in their barangays as well as accessing small livelihood projects for their members.

A seminar and field trip about the importance of the Danajon Double Barrier Reef was held for the municipalities of Talibon, Bien Unido and Getafe. This is when co-management with the Talibon LGU and the fisherfolk truly began.

In early 1997, a new association called FISHWAT (Fishery Warden Association of Talibon) was formed and over 100 people were trained as deputized fishery wardens. The adequate representation of fisherfolk leaders, LGU members and BIDEF staff made possible the arrest of illegal fishers and the implementation of management measures at the community level.

All the fisherfolk organizations have now been federated into one group called the *Federasyon sa Gagmayng Mananagat sa Talibon* or FEGAMATA. Hopefully, this would enable them to become a lobbying voice at both barangay and municipal levels of governance.

A request to the Municipal Council to allocate budget for BIDEF to design a participatory zoning plan for the municipal waters and document its projects has been made. Hopefully, the LGU will eventually declare the whole area as a marine park.

Conclusion

According to fishers, fish catch has been increasing, with improved abundance and size of the mixed pelagic and demersal fishery. Many species have also reappeared. Needless to say, the fish market is thriving, with an abundance of fish species that they claim to be much larger thus, considered of higher quality. The consumers confirm this and are happy to note that the price has remained pretty steady.

Artificial reefs ready to be dropped to stop the intrusion of trawls and other illegal gears within traditional fishing areas of fisherfolk organizations.

An indicator of increased catch is the doubling of the number of passive fish corrals (*bungsod*) in the area. Another is the recent construction of 11 stationary bag net fishing gears locally called "newlook". This fishing technique has not been used for over 10 years in the area, being no longer feasible in the late 1980s due to the smaller catches.

The Talibon project is by no means complete. Yet, Talibon is well ahead of nearly all other areas of Bohol. The fisherfolk friendly Mayor and Municipal Council have proven to be effective law-making and implementing authorities in the area and they have made a lot of things happen within the municipality. Fisherfolk have become strong advocates of ecological protection and some of the organizations have been successful in accessing their own funds and waging good advocacy efforts.

Fish have reappeared quickly in demersal and barren areas. The fisherfolk are quite content just with a hook and line and some previous non-fishers have now taken up fishing as a supplementary livelihood. This suggests that fisheries management measures can really be seen and felt at the local level, and even more importantly, over a relatively short span of time.

The project is now working on its sustainability through training for trainers in the barangay and municipal resource management councils. A fisherfolk federation is also being developed.

An important lesson is that the most important stage of the project is community organizing and that the project needs a good mix of experienced staff with a variety of backgrounds. Being adaptable to the needs and wants of the fisherfolk is also essential.

While we were able to operate alone initially, it was only until co-management was implemented that the resource management really progressed. The time lag between the project start in 1994 and the change of officials in the local government unit in 1995 gave us time to get the fisherfolk organizations up and running, before approaching the co-management stage.

We look forward to working further with the LGU until we can all see the results of our endeavors—LGU's, fisherfolk's and non-government organization's. Good resource management takes time to develop, as does devolving the management of the resources to the resource users. But once community-based development begins to gain momentum, it becomes sustainable indeed.

[We hope that the Talibon example can spread to other parts of Bohol and beyond! Editor]

Acknowledgements

The entire BIDEF Inc. staff, especially the Talibon and Bien Unido team, composed of Bobby Rosales, Victor Orevillo and Gilde Auxillo and of course Talibon's Councilor Jose Wayne Evardo and Mayor Juanario Item assisted with this article.

BIDEF Inc. is a medium-sized non-government organization based in Tagbilaran City. It advocates fisherfolk-based coastal resource management. It has been working for over 9 years in resource management and has 4 coastal municipalities of Bohol with some 40 barangays within the "Bosicadd" program as project sites.

leadership models

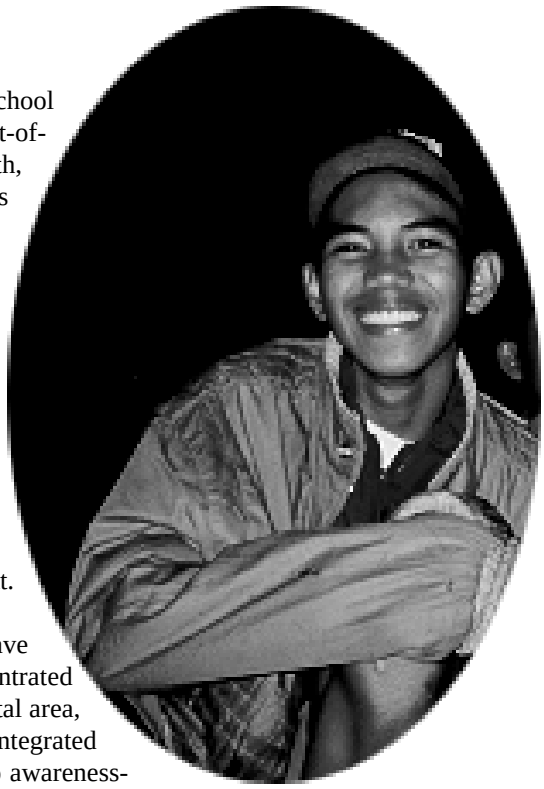
A New Generation Coastal Leader

Whenever the term *leader* is mentioned, most people think of age, experience, wisdom and knowledge … in short, people would immediately think of someone who has been around for a long time. Many people forget that leaders can also be young; and while relatively inexperienced and new to the role of being a leader, these youngsters can be very energetic, motivated, enthusiastic and action-oriented.

The Edicto family of Biliran Province, Philippines, provides us with a good example of this youthful leadership phenomenon. The budding leader in its midst, Arnel has emerged as a young citizen interested in conserving the natural beauty that surrounds his home *barangay* (village) of Tabunan in the municipality of Almeria. The grandson of a fisherman, Arnel embodies respect and admiration for the sea that has not only provided his family with a traditional livelihood, but with hours of recreation as well.

In January of 1997, Arnel was one of two selected by Plan International-Baguio and the United States Peace Corps to represent the youth of Biliran at the week-long Youth Ecology Camp at Camp John Hay. Arnel, then a second-year high school student, represented Tabunan High School. While at Camp John Hay, he met about 40 other youth from around the nation, all of whom were involved in environmental awareness and conservation. Plan International-Bagiuo introduced the concept of a Youth Conservation Corps and encouraged the students to enjoin other young people in the environmental movement when the participants go back to their homes.

Upon his return to Biliran, Arnel began his mission. He gave several talks in local high schools, discussing issues that ranged from environmental awareness to conservation activities. Eventually, the first-ever Youth Ecology Club in Biliran was formed at Arnel's Tabunan High School. With an initial membership of 12 volunteers ranging from high school youth to out-of-school youth, the Club has spent the last eight months making parents and neighbors aware of the fragile nature of the environment. While most activities have been concentrated on the coastal area, the Club's integrated approach to awareness-building has included sponsoring nature hikes along the neighboring volcano ridges, camping in the upland forest, and composting activities.



With Arnel as vice-president, the Club has participated in several beach clean-ups at the neighboring beach resort and along the barangay shoreline; encouraged the cessation of coral destruction in barangay waters; assisted the local fishing association in the physical preparations for a barangay marine sanctuary; and began tree-planting in deforested upland areas. In addition, the Club is meeting with a local piggery owner on the environmental impacts of the animal wastes currently being dumped into a river leading to the ocean. The teachers of Tabunan High School have also been introduced to the International Marine Alliance's CREST (Coral Reef Education for Students and Teachers) Manual. They use it to teach both about the environment and English.

Arnel currently plays an important role in assisting the Provincial Agricultural Office (PAO)-Fisheries Section and the Provincial Environment and Natural Resources Office (PENRO) by serving as a warning-system for sea turtle capture. Due to his efforts, the PAO and PENRO have been able

to save three hawksbills and one green turtle from the soup-pot. There is already talk in the Provincial Capitol that this young man should receive a certificate of appreciation from Governor Wayne M. Jaro for his environmental effort at the barangay level!

Arnel, indeed a young fourteener, is quickly gaining experience and insight in the ways of coastal environmental advocacy. With a lot more work, plenty of encouragement and a little luck, perhaps, he can cultivate enough coastal environmental awareness in Almeria and nurture in the hearts of its people the role that citizens play in conserving it, transforming a few believers and doers into a multitude.

By **Thomas Bayer**,
Training Coordinator, CRMP

the news

Earthwatch Expedition in Batangas, Philippines

An Earthwatch expedition was conducted from June 11-July 2, 1997 on coral reefs in Balayan Bay, Batangas to update past surveys conducted from 1991-93 and in 1995. The diverse and abundant reefs in the area provide many diving and photographic opportunities for both local and foreign SCUBA divers, and they support sustainable fisheries. The surveys showed that most of coral habitat substrates had improved remarkably in condition since 1991. However, although the reef substrates are intact, it cannot be ignored that they are also subjected to increasing pressure from overfishing in some areas, occasional destructive fishing and careless tourist operations.

The long-term goal of this coral reef monitoring project is to assist with management and protection of coral reefs in Mabini. The survey results provide feedback on the status of three sanctuaries as well as additional baseline data on potential management sites. In 1991, The Haribon Foundation established a marine reserve with three small sanctuary areas in collaboration with the local government of Mabini and two villages (*barangay*) in the Calumpan Peninsula. The barangays and resorts manage these sanctuaries. Now more sites are being eyed for sanctuaries.

The survey team comprised of 4 staff and 2 teams of 6 and 8 volunteers from England and the United States. Earthwatch Inc. organized the volunteer group while The Haribon Foundation and the Coastal Resource Management Project (A. White) facilitated the work through its crucial link with the barangay residents, resort operators and other members of the different communities in the study area.

68-year-old Earthwatch volunteer, Jane Jones, surveying the reef.

Those interested in the survey results can obtain a copy from the Principal Investigator, Alan White, c/o CRMP. Incidentally, the results are also part of Reef Check '97 (see next article).

By **Dolores Ariadne D. Diamante-Fabunan**,
CRM Specialist, CRMP

Global Coral Reef Status: Action at Last

Reef Check '97, the first global survey of human impacts on the world's coral reefs has been completed as part of the International Year of the Reef. Organized by the Institute for Environment and Sustainable Development (IESD) of Hong Kong University of Science and Technology, the survey involved over 100 marine scientists and 750 recreational divers who surveyed 300 coral reefs in 30 countries and territories between 15 June and 31 August 1997. (The data from the Earthwatch expedition in Batangas were also included.)

Reef Check survey methods were developed such that they are simple enough so that experienced divers with a minimum of a high school education could be fully trained in less than one day and allow each team to survey one reef per day; yet, include a strict quality control system and produce results that provide scientifically valid answers to key questions about human impacts on coral reefs.

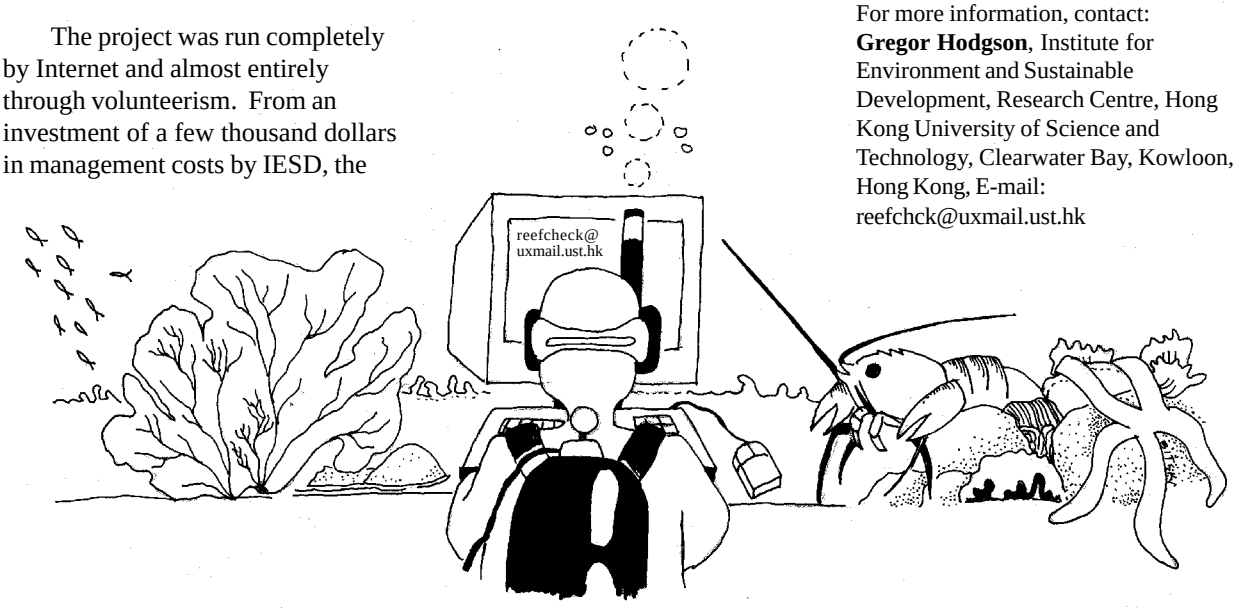
The project was run completely by Internet and almost entirely through volunteerism. From an investment of a few thousand dollars in management costs by IESD, the project produced about US$2 million worth of invaluable data worldwide. Preliminary results from about 230 sites have been released. A full report will be published later this year.

Results were rather alarming. No lobsters were recorded in 81% of the reefs surveyed. An average of 17 giant clams was found on the Indo-pacific reefs in contrast to 150-250 recorded in several protected sites in the Red Sea and Australia. According to the Sarawak Reef Check team, "99% of the reefs have been damaged by blast fishing." And to think that some scientists previously assumed that the reefs in this eastern coast of Borneo would still be untouched. The average percentage of living coral cover on reefs was 31% globally. However, only 7 sites indicated problems due to sewage pollution. Sewage pollution may be more important on reefs near urban areas which were not common in this study. The good news is that results from marine parks with proper management demonstrate the effectiveness of conservation to allow various species and populations to recover.

The world has reached the stage where it is technologically possible to monitor and to manage marine resources. Reef Check works well as a rapid assessment tool and indicates where additional, more detailed scientific studies are needed. Repeated annual surveys will be useful to determine if management practices are working and populations of indicator species are recovering. An annual "State of the World's Reefs" report is needed, based on both Reef Check and more detailed studies.

[Excerpted from the background material provided for the Reef Check 97 Press Conference by the Institute for Environment and Sustainable Development, Hong Kong University of Science and Technology courtesy of Gregor Hodgson, Global Coordinator]

For more information, contact: **Gregor Hodgson**, Institute for Environment and Sustainable Development, Research Centre, Hong Kong University of Science and Technology, Clearwater Bay, Kowloon, Hong Kong, E-mail: reefchck@uxmail.ust.hk



Ghana Team Visits Philippine Mangrove Management Initiatives

Representatives of the Lower Volta Mangrove Project (LVMP) composed of the Project Co-ordinator, two Councillors from District Assemblies (Local Government Units) within the project area as well as three staff members from the Wildlife Department who are directly involved in coastal wetland issues came on a study tour to the Philippines. The July 1997 study tour was organized by the British Council to provide a fresh perspective on mangrove management to the Ghana team.

Teodolo Selim, mangrove contract planter, being interviewed by Dickson Agyemar. Looking on are Simon Zoiku, Edem Keojo Wedz and Emma E. Melana of ERDS-DENR Region 7.

A number of activities were undertaken during the six-day visit: a) a briefing conducted by officials of the Department of Environment and Natural Resources (DENR) in Cebu; b) visits to community-managed forests under the stewardship scheme and areas where contract planting had been carried out; c) visit to the office of the Coastal Resource Management Project (CRMP) in Cebu; and d) a tour of the Silliman University Marine Laboratory including discussions with researchers involved in mangrove research, as well as field trips to Talabong Mangrove Reserve, Bais Bay, Negros Oriental and Getafe Mangrove Reserve, Bohol. When possible, the visiting team talked to the local people directly involved in mangrove planting.

The brief visit to the Philippines provided excellent opportunities for South-South networking. It validated the basic tenet of the LVMP, that for effective coastal resource management, there is a need to combine technical know-how with strong internally led approaches from the local communities for the management of mangroves. Except for differences in legal tenure of ownership of mangroves between the two countries, there are many similarities in techniques being used by CRMP and DENR in Ghana.

The LVMP is an 18-month project that aims to provide the information base needed to plan activities directed at regenerating mangroves in Ghana through community-based management initiatives. The LVMP is funded by the Department for International Development, formerly known as the Overseas Development Administration. The Project is recognized as an associated research activity by the Land-Ocean Interactions in the Coastal Zone Project of the International Geosphere-Biosphere Programme. The Project is also affiliated with the Lower Volta Environmental Impact Study funded by the Volta River Authority and implemented by the Volta Basin Research Project, University of Ghana.

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