

RESEARCH ARTICLE

Engaging Fisherfolk Organizations in Conservation-Based Alternative Livelihoods and Conservation of the Habitats of Irrawaddy Dolphins in Negros Occidental

Virgilio R. Aguilar* and Dexter Ian M. Tabujara

¹University of St. La Salle, La Salle Avenue, Bacolod City, Negros Occidental, Philippines

ABSTRACT

The coastal waters of Bago City and Pulupandan are core habitats of the critically endangered Irrawaddy dolphin (*Orcaella brevirostris*), and the establishment of a marine protected area (MPA) is seen as a crucial strategy in ensuring their conservation. However, the sustainability of the MPA depends on the participation of those who have greater stakes as resource users, the fisherfolk communities. This paper describes and assays the experiences and issues on how fisherfolk organizations were engaged in conservation-based alternative livelihood and protection of the habitats of Irrawaddy dolphins. Using qualitative methods, rapid community appraisal, key informant interviews, focus group discussions, and workshops were conducted involving eight fisherfolk organizations. A conservation-based alternative livelihood framework was adopted in engaging the fisherfolk communities, which was drawn from the concepts of the sustainable alternative livelihoods approach (SALA) and the ecosystem-based adaptation (EbA). Community organizing processes and development principles were observed, such as ensuring that activities are undertaken to be participatory and community-based in approaches. The experiences in engaging fisherfolk organizations yielded some issues and lessons: poverty remains a barrier to conservation; how to contend with the strong dole-out mentality among members; community building as an organizing approach was short-lived; the support of local government units; and the vital role of women in conservation and community development. The study suggests a shift in the community organizing approach towards consensus organizing because environmental conservation necessitates the involvement of various stakeholders.

*Corresponding Author: v.aguilar@usls.edu.ph
Received: August 24, 2021
Accepted: May 2, 2022

Keywords: *conservation-based alternative livelihood, fisherfolk communities, Irrawaddy dolphins*

1. INTRODUCTION

The Guimaras Strait, a body of water lying between the province of Guimaras and Negros Occidental that includes the coastal waters of Bago City and Pulupandan, has been known as critical habitat for many marine species, especially the Irrawaddy dolphins (*Orcaella brevirostris*), known among locals as “*lumba-lumba*.” According to Dolar et al. (2018), the very low population estimate of Irrawaddy dolphins qualifies the population as Critically Endangered. From an estimated average of 21 dolphins (Silliman University Institute of Environmental and Marine Sciences 2014), the population further declined to only an average of 13 dolphins (De la Paz 2017) in three years.

Since its participation in the collaborative study on the Irrawaddy dolphin with Silliman University and Guimaras State College in 2012-2013, the University of St. La Salle (USLS), through its Center for Research and Engagement, has sustained its initiatives in the conservation of the habitats for Irrawaddy dolphins. In 2015, with funding support from Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), it embarked on a Protected Area Management Enhancement (PAME) research project focusing on the Irrawaddy dolphin habitats in the coastal waters of Bago City and Pulupandan. The GIZ-PAME study revealed not only the critical condition of the Irrawaddy dolphin habitats but also a declining fish-catch production (Pacalioga et al. 2016) and an impoverished condition of households in the

coastal communities of Bago City and Pulupandan (Quezon et al. 2017). This validates previous studies that the poverty rate for coastal fisherfolk was 62% compared with the national average of only 34% (Israel 2004 as cited in Anabieza et al. 2010). The stakeholders' analysis under the GIZ-PAME project categorized fisherfolk communities in Bago City and Pulupandan as a latent group.

The participation of the LGUs of Bago City and Pulupandan in the GIZ-PAME project was crucial as it influenced them to be more responsive to environmental concerns. On its part, the City Council of Bago City passed an Ordinance in 2017 establishing a 130-hectare Marine Protected Area (MPA) for Irrawaddy dolphins in its coastal waters, which includes a 30-hectare no-take zone. Furthermore, the said ordinance mandates the creation of a Management Board for the MPA whose responsibilities include identifying and implementing conservation management interventions.

In 2017, the research grant from the Commission of Higher Education (CHED) Discovery Applied Research and Extension Trans/Interdisciplinary Opportunities (DARE TO) provided the University of St. La Salle an opportunity to continue its conservation initiatives in the habitats of Irrawaddy dolphins in the coastal waters of Bago City and Pulupandan. One of the six components under the CHED DARE TO project was a study on alternative livelihood and environmental advocacy where fisherfolk communities were engaged, not only in alternative livelihood but also in the conservation and protection of their coastal marine resources.

This paper describes and assays the experiences and issues encountered by the Study Group on Alternative Livelihood of the University of St. La Salle on how fisherfolk organizations in Bago City and Pulupandan were engaged in community organizing, conservation-based alternative livelihood, and protection of the habitats of Irrawaddy dolphins.

2. METHODS

2.1 Research methods

Descriptive in research design, the study used qualitative methods in data gathering, such as rapid community appraisal, key informant interviews (KIIs), focus group discussions (FGDs), workshops, ocular or site visits, and non-participant observations.

A multi-disciplinary research team composed of six faculty researchers from the University of St. La Salle and Bago City College conducted the rapid community appraisal. Through ocular visits, observations, courtesy visits with local officials, and casual interviews with local leaders, it provided the research team with a preliminary and qualitative understanding of the situation of the eight coastal communities in Bago City and Pulupandan.

Key informant interviews were conducted among their leaders and selected community informants to capture the status of fisherfolk organizations and other related information. FGDs were also conducted in eight fisherfolk organizations participated by their officers and selected members, especially on the assessment of their organization, visioning, issues and problems, and discussion on other related issues.

The community organizing component was undertaken by tapping the expertise of a community organizer of BALAYAN, the Social Action Office of the University of St. La Salle, who led the study group in community organizing works. In the course of organizing the selected coastal communities, community organizing and development principles and processes were observed, ensuring that activities that involved people were participatory and community-based in approaches.

2.2 Study sites and participants

Figure 1 shows the sites of the study. The study was conducted in partner communities of the Center for Research and Engagement of the University of St. La Salle during the conduct of research in 2015-2016 in the coastal barangays of Bago City and Pulupandan under the GIZ-PAME.

There were five coastal barangays in Pulupandan covered, and they were as follows: Barangay Zone 1, Barangay Zone 1-A, Barangay Zone 6, Barangay Canjusa, and Barangay Tapong. In Bago City, only two coastal barangays were involved namely, Barangay Poblacion and Barangay Sampinit.

The study participants were officers and members of eight fisherfolk organizations; two from Bago City and six from Pulupandan. They differ in organizational size and status. In Pulupandan, four organizations can be considered organized while two are still in core group formation. In Bago City, one organization is considered active and organized while the other one is still in core group formation.

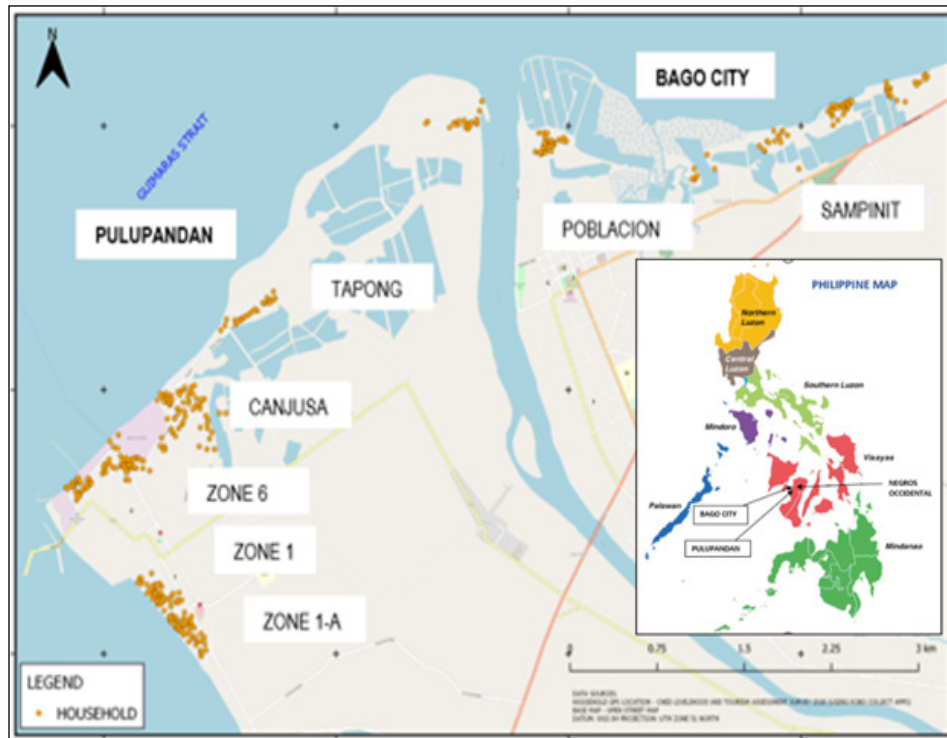


Figure 1. Map showing the study sites in the coastal barangays of Bago City and Pulupandan, Negros Occidental

3. RESULTS AND DISCUSSION

3.1 The state of fisherfolk organizations

Bago City. The two fisherfolk organizations in Bago City differ in their basis of unity and purpose. Members of the Calubay-Anahaw Small Fisherfolk Association are united because they want to address illegal fishing and their state of poverty and believe that they have a voice when they are united. In contrast, the Barangay Poblacion Fisherfolk Organization's primary reason they organized themselves is to access funds and projects from the government to address their poverty situation. This reflects that the dole-out mentality persists among its members. However, it should be noted that both organizations are leader-driven.

Moreover, between the two organizations, the Calubay-Anahaw Small Fisherfolk Association showed more experience in handling community development-related projects such as the "Food for Work - Mangrove Refo Project" with the Provincial Environment Management Office. Therefore, on the organization's status, the Calubay-Anahaw Fisherfolk Association can be considered an organized group, while the Barangay Poblacion Fisherfolk Association can be classified as a non-organized one.

Pulupandan. The fisherfolk organizations in Pulupandan, even though they vary in size and history, shared similar purposes in why they organized themselves. Common among them is the aspiration that if they can organize themselves and have unity, it would be easy for them to access assistance and projects from the government that can address their poverty condition.

After reviewing the status of the six fisherfolk organizations in Pulupandan, they can be classified into two groups: organized and non-organized. Organizations classified as organized are those that need strengthening or capacity building but are registered, while those classified as non-organized are groups that do not yet have a constitution and by-laws and they operate only as an ad hoc group. Organizations considered as an organized group were the *Asosasyon sg mga Imol nga mga Mangingisda* in Paco Beach, Association of Tangaban Operators of Barangay Zone 6, Farmers and Fishermen Association of Barangay Tapong, and *Imol nga mga Mangingisda Asosasyon sg Cavan* (IMAC). On the other hand, groups classified as non-organized were the Fisherfolk Association of Barangay Zone 1 and the Fisherfolk Association of Barangay Canjusa.

Table 1. Organizational assessment of fisherfolk organizations in Bago City and Pulupandan

Name of Organization	Basis of Unity/ Purpose	Status of Organization	Status of Leadership	Year Established	No. of Members
Bago City					
Calubay Anahaw Small Fisherfolk Association (CASFA)	<ul style="list-style-type: none"> To address illegal Fishing and poverty. To access services, supports, and funds. To be united to have a voice. 	<ul style="list-style-type: none"> Registered in DOLE-BRW Accredited by the City Has CBL Inactive for the last 10 years because of no programs and activities Organized group 	Leader-driven organization	1994	40
Barangay Poblacion-Bago Fisherfolk Association	<ul style="list-style-type: none"> To access projects and funds from the government. To address poverty. 	<ul style="list-style-type: none"> Core group formation No CBL Organized only to access projects or funds Unorganized Group 	Leader-driven organization	2014	62
Pulupandan					
Asosayson sang mga Imol na mga Mangingisda sa Paco Beach (Zone 1-A)	<ul style="list-style-type: none"> To unite the community. To help facilitate access of projects from the government. 	<ul style="list-style-type: none"> DOLE- BRW Registered Has CBL and holds a yearly election Active and an organized group 	The Chair is the Punong Barangay but has an active collective leadership	2009	43
Small Fisherfolk Association of Zone 1	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> No formal organization Unorganized group 	The de facto leader is a Barangay Captain	2010	35
Barangay Tapong Farmers/ Fishermen Association of Brgy. Tapong Inc.	<ul style="list-style-type: none"> To avail assistance from World Bank. 	<ul style="list-style-type: none"> SEC Registered but not renewed Has CBL but not updated Organized group 	Leader-driven Organization	2011	25
Imol nga mga Mangingisda Asosasyon sg Cavan (IMAC)	<ul style="list-style-type: none"> To address poverty and protection of coastal resources 	<ul style="list-style-type: none"> SEC-registered but not renewed Has CBL Organized group 	Active collective leadership	1975	20
Barangay Zone 6 Association of Tangaban Operators of Barangay Zone 6	<ul style="list-style-type: none"> To sustain their business enterprise (Tangab operation). 	<ul style="list-style-type: none"> SEC Registered Has CBL Registered at DOLE-BRW and known in Negros Organized and active 	The leader is a Kagawad of the barangay	2013	25
Barangay Canjusa Fisherfolk Association of Barangay Canjusa	<ul style="list-style-type: none"> To address poverty. 	<ul style="list-style-type: none"> In core group formation and has no organizational structure and CBL Remarks: unorganized 	No formally elected leaders	2013	20

CBL: Constitution and By-Laws

DOLE-BRW: Department of Labor and Employment – Bureau of Rural Workers

SEC: Security and Exchange Commission

3.2 The conservation-based alternative livelihood

Alternative livelihood projects have been used as a strategy to address threats to species and habitats from local resource users. However, conservation and development practitioners have expressed concern that this approach may be flawed (Roe et al. 2015). The International Union of Conservation of Nature (IUCN) in 2012 issued a resolution that called for a critical review of alternative livelihood projects based on concern that their effectiveness is unproven. Furthermore, alternative livelihoods are often introduced without a thorough understanding of the drivers of unsustainable resource use, so their introduction does nothing to improve sustainability (Fauna and Flora International 2013). In determining an alternative livelihood program, Wright et al. (2016) suggested that rather than using livelihood-focused interventions, it is better to focus on either enhancing the existing livelihood strategies of the fisherfolk or livelihoods that have a clear link to conservation and promotion of good community relations. Bohannon (2018) introduced the sustainable alternative livelihoods approach (SALA), a pragmatic, evidence-based, participatory approach to alternative livelihood and conservation. He argued that under SALA, there is a need to “reestablish partnership that addresses the needs of communities by helping to identify, create and realize opportunities for sustainable alternative livelihoods through an evidence-based approach and encouraging local community members to participate directly in wildlife protection activities, essentially making people part of the solution rather than the problem” Bohannon (2018).

Cognizant of the discourse above on alternative livelihood and its sustainability and given the timeframe of the CHED DARE TO research project of 18 months, this study anchored its approach on the existing conservation and MPA management plans of Bago City and Pulupandan. Conservation-based alternative livelihood, as defined in this study, refers to the strategy of designing livelihood interventions based on the needs and aspirations of marginalized communities, empowering them to support conservation initiatives, adapt to the challenges of climate change, and create mechanisms of support from various conservation stakeholders. This concept of conservation-based alternative livelihood is attuned to the ecosystem-based adaptation (EbA), which has become the preferred adaptation approach to climate change in the least developed and developing countries (Nalau et al. 2017). As defined by the Convention on Biodiversity in 2009, EbA uses biodiversity and ecosystem services as part of an overall adaptation strategy to help people adapt to the adverse effects of climate change. However, EbA as an approach has not given much importance to issues of empowerment and organization, and incorporating an empowerment lens could increase consideration of issues of power more broadly, especially the way marginalized groups’ agency, access, and aspirations are conditioned by social structures that may prevent strategic adaptation choices (Woroniecki et al. 2019). Conservation-based alternative livelihood as a strategy recognizes the importance of empowering communities not only to address their needs but also to be more active in engaging other stakeholders toward conservation. Figure 2 shows the diagram of the conservation-based alternative livelihood framework used in this study.

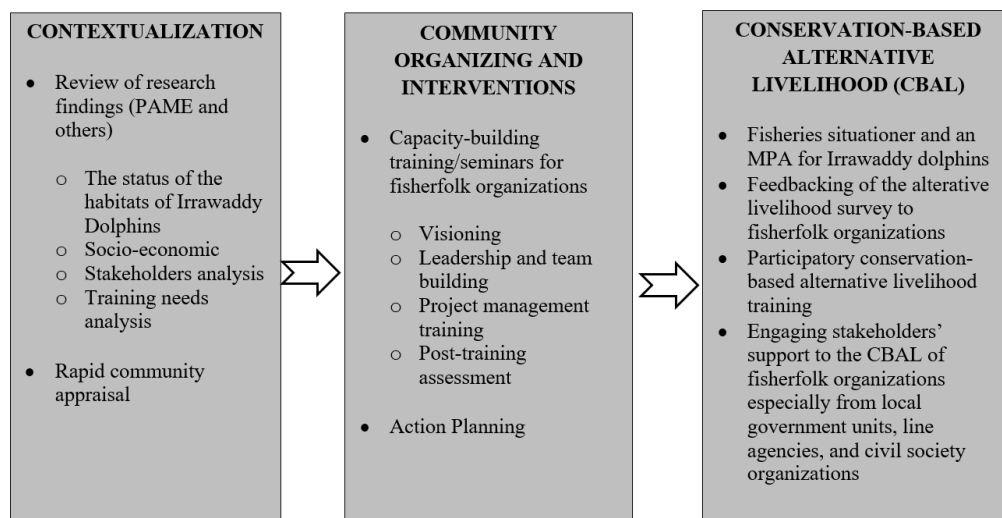


Figure 2. The conservation-based alternative livelihood framework

3.2.1 Contextualization

Reviewing the salient findings of studies conducted under the GIZ-PAME project was the initial step the research team undertook in understanding the context of the study. This was followed by the conduct of rapid community appraisal in selected coastal communities to establish a preliminary understanding of the situation of coastal communities and fisherfolk organizations. Site visits and casual interviews were conducted to establish contacts, build rapport with the people, and familiarize the team with the situation of the communities. Several community visits were conducted in every phase of community development, from initial entry to ground working and coordination of activities, partnership formation, follow-ups of leaders and members for their participation in seminars and training related to leadership, organizational development, and livelihood. Visits also included a series of dialogues and consultations with local government officials, both at the city or municipal and barangay levels, and key stakeholders of the project, which were done at the community level.

3.2.2 Diagnosing the state of organizations

Initially, the research team studied the fisherfolk organizations and the communities they were operating. It involved identifying various components of the organization, such as history and purpose, the organization's status, programs and activities implemented, and financial standing. They were used as the basis of the guide questions for the FGD, which assessed the status of partner fisherfolk organizations. Invited as participants were leaders and selected members of the partner fisherfolk organizations. For instance, representatives of Calubay-Anahaw Small Fisherfolk Association in Barangay Sampinit, Bago City, related that the reason why they got organized in the 1990s was because of rampant illegal fishing in their coastal waters.

FGDs conducted with key fisherfolk leaders provided essential data on the condition of coastal communities and the status of fisherfolk organizations. For example, they were asked about their organization's legal status, such as registration at the Department of Labor and Employment – Bureau of Rural Workers (DOLE-BRW), the status of leadership and membership, programs and activities, financial standing, and issues and concerns. In addition, the FGDs helped determine whether the fisherfolk

organization was organized or non-organized. Finally, the assessments made based on key informant interviews and focus group discussions were used to develop a training design and schedule.

After analyzing data on the state of various partner organizations in Pulupandan and Bago City, they were categorized into two clusters; one cluster was for organizing, and another cluster was for strengthening. Cluster 1 was a group that had no clear Vision, Mission, Goals, and Objectives (VMGO), no identified formal leaders, and membership, while Cluster 2 was grouped with VMGO, with identified leaders and existing membership.

3.2.3 Capacity building plan

The resource users are the best resource managers. This is one of the principles of community-based coastal resource management (CBCRM). Given the crucial role of fisherfolk communities in protecting coastal marine resources, they must be organized and capacitated. Thus, a capacity-building plan was designed based on their needs and situation, including visioning, leadership training, team building, awareness-raising, and skills training, especially related to alternative livelihood. Considered also were knowledge, skills, and attitudes needed for the formation of leaders, membership development, and possible expansion of the organization in some future time.

3.2.4 Visioning

After making an assessment, a workshop on VMGO formulation was conducted. For Cluster 1, they were given inputs on how to make a VMGO and asked to formulate the VMGO of their organization, and for Cluster 2, they were asked to review their VMGOs. Making a VMGO helped various organizations have unity of purpose and direction on what they want to achieve in the future. Interestingly, for some organizations in Cluster 2, it was found that what they brought as their VMGO was the VMGO of their barangay. Thus, the process undertaken for Cluster 1 was also conducted for them.

3.2.5 Leadership and team building seminar

The participants in the FGD mentioned the need to hone their skills and build their team. Thus, two-day leadership and team-building seminars were conducted.

The first topic was about the dignity of human beings and that each person is unique and important in the eyes of God. The facilitator pointed out that the fisherfolk and women leaders can change their plight if they work collectively for their sector. There was also a discussion and analysis of the Environmental, Political, and Cultural Situations (EPC Situations). The participants were grouped and asked to analyze their situation based on the assigned topics. Then they were given a chance to provide recommendations on the issues they identified.

A talk on transformational leadership was conducted to encourage the participants to become "transformational leaders" to build their organizations and communities in the long run. Lastly, a very touching and symbolic pledge of commitment was done with candle lights on as they signed, expressing their commitment to take care of their organization and community, including the protection of the habitats of Irrawaddy dolphins. The two-day activity was concluded with a Catholic mass service. With the conduct of leadership and team building, everyone was inspired to do the arduous task of building empowered communities.

3.2.6 Fisheries situationer

A seminar on "Fisheries Situationer" was held to raise the awareness of the fisherfolk organizations on the situation of Philippine fisheries, the state of the coastal marine environment, and the importance of conservation and protection of the habitats of the Critically Endangered Irrawaddy dolphins. In addition, there was a presentation on how important MPAs are. It was an essential topic that needed complete understanding among the stakeholders in the coastal communities since their involvement will either make or break in the establishment of MPAs. Conversely, they could either help protect or destroy the MPAs.

One important topic discussed was the fisheries situation in the coastal waters of Bago City and Pulupandan based on the USLS-PAME study. Data were shown indicating a declining fish catch production and maps that indicated sightings of Irrawaddy dolphins, location of MPAs, large fixed filter nets or "tangab," and other essential markers in the waters of Bago City and Pulupandan. It also presented the fishing grounds, total landed catch, types of fishing gears, the intensity of fishing activities, and the comparison of catch per effort. The last topic

was "Small Scale Fisheries and Fishing within Limits," given by the Regional Campaigner of Greenpeace. National and international issues that need support from people's organizations and communities were discussed, including the need to strengthen regional collaborations. Presented also was the 10-Point Philippine Blue Agenda for Sustainable Fisheries, which includes Agenda 6 (protection of aquatic resources through marine protected area network), Agenda 9 (strengthening of a defense mechanism against the danger of climate change for the fisher folks), and Agenda 10 (promote a sustainable method of fishing).

3.2.7 Project management training

Part of the training schedule was training on project management. Three participants – consisting of their Chair, Treasurer, and Business Manager - from each partner organization attended the training. The objective was to provide knowledge and skills training for participants on how to manage community projects if they would have one in the future. The resource speaker gave inputs and conducted workshops on how to start and manage a project that included the stages and models in project management.

3.2.8 Post training assessment

Two weeks after the last implementation of the training schedule, a post-training assessment was conducted where partner fisherfolk organizations were visited in their respective communities. The purpose of the post-training assessment was to process the knowledge they had gained, their feelings on the activities, and skills acquired that would benefit their organizations.

3.2.9 Feedbacking on alternative livelihood survey findings

The findings of the alternative livelihood assessment were presented to partner fisherfolk organizations in Pulupandan and Bago City. The purpose of the validation was not only to share the findings of the survey with the fisherfolk communities but also for them to use the findings in coming up with action plans for their organization. During the meetings, all partner fisherfolk organizations were agreeable to the survey's findings and even gave anecdotal explanations for some critical ones.

3.2.10 Action planning

A week after the survey validation, an action planning workshop was conducted to develop an organizational action plan for each partner fisherfolk organization. During the action planning workshop, leaders of the partner fisherfolk organization were asked to identify the following: 1) doable programs and activities; 2) who will implement; 3) schedule; 4) things or support needed; 5) whom to ask for assistance or support; and 6) alternative livelihood recommendations.

It can be said that they shared similar priorities in terms of the programs and activities when comparing the action plans created among the partner fisherfolk organizations. Almost all of them focused on strengthening their organization first by expanding their membership, working for the registration with DOLE-BRW, and seeking accreditation with their local government unit. For those organizations that were assessed as non-organized, they prioritized making their constitution and by-laws (CBL), recruiting more members, holding a general assembly, and ratifying their CBL. For the organized groups, they planned to create more functional committees and already identified some alternatives, such as the propagation of mangrove seedlings. They also planned to attend livelihood training conducted by the Technical Education and Skills Development Authority and make project proposals. An important part of the action planning workshop was identifying a doable alternative livelihood project that organizations can realistically implement given their time and resources.

3.2.11 Alternative livelihood training

In consonance to establish an MPA, livelihood training must not be directly related to fishing. The idea is to lessen the dependency of the fisherfolk on fishing and provide them with alternative sources of income during off-fishing seasons. Thus, among the top three livelihoods recommended by the fisherfolk organizations, handicrafts such as shell crafts and “*pandan*” weaving were considered the most viable alternative livelihood. A “*pandan*” is a leaf used commonly in weaving a wide range of handicrafts such as mats, baskets, and hats.

They also considered smoked fish and salted egg making as other possible alternative livelihoods. However, in the case of smoked fish-making, it can be tapped as a livelihood for fisherfolk to use the abundant supply of certain seasonal fishes such as sardines.

3.3 Issues and Lessons

3.3.1 Conservation vs. resource use

The apprehension of small fisherfolk that their fishing grounds will be limited if the MPA for Irrawaddy dolphins is strictly enforced and the proposal for alternative livelihoods that would veer them from depending on fishing are valid issues that need to be clarified. These are the issues that are being debated among conservationists and development agencies. On the one hand, the Nature Conservancy (TNC), World Wildlife Fund (WWF), Conservation International (CI), and Wildlife Conservation Society (WCS) (2008, as cited in Manejar et al. 2019) said that the proper management of MPAs can “reduce poverty and increase the quality of life of surrounding communities” and this was further supported by Turner et al. (2012, as cited in Manejar et al. 2019) who commented that marine diversity could support poor communities and can be a leading factor of “sustainable economic development.” On the other hand, the Millennium Ecosystem Assessment (2005, as cited in Manejar et al. 2019) reported that “while a large part of the population has seen and benefitted from the transformation of ecosystems and exploitation of natural resources, the distribution of benefits was unequal, affecting particularly the poor who were left out.”

On the issues above, the fisherfolk communities in Bago City and Pulupandan must be made to understand the importance of the MPA, its momentary impact on their livelihood, and the long-term benefits they can get if they allow the fishes regenerate for some time. This is a challenge because almost 7 out of 10 households in the coastal barangays of Bago City and Pulupandan are not aware of what an MPA is (Aguilar 2019). However, equally important is the need to address their poverty. As long as they live in such marginalized conditions, they will continue to engage in fishing and would even be antagonistic resource users if MPA regulations are enforced. Thus, alternative livelihoods need to be attuned to conservation and poverty, especially during the off-fishing season.

3.3.2 Poverty as the biggest barrier to conservation

Small fisherfolk is one of the sectors in the Philippines with the highest poverty incidences in 2018 along with farmers, individuals residing in rural areas, and children who belong to families with income

below the official poverty thresholds (Philippine Statistics Authority 2020). Small fisherfolk living in the coastal areas of Bago City and Pulupandan is not exempted from this reality. Most of them live below the poverty line (Quezon et al. 2017). Aguilar (2019) validated this finding when he found that more than half of the households in the said coastal communities have a monthly household income of PHP 10,000 and below, which is below the poverty threshold income of PHP 10,481.00 for a family of five based on the 2015 National Income and Expenditure Survey of PSA.

According to Camacho (1999), "the municipal fisherfolk are in a vicious poverty cycle wherein fish-catch per fisherfolk is declining and cannot anymore support a viable livelihood." However, despite the declining fish-catch production of small fisherfolk in Bago City and Pulupandan (Pacalioga et al. 2016), they continue to rely on fishing as their primary source of livelihood. Thus, when the idea of establishing an MPA for the Irrawaddy dolphins within their coastal waters was pushed under the GIZ-PAME, they showed low interest in it because of the apprehension that their fishing activities would be restricted, affecting their source of daily income. Aguilar (2017) assessed them in the stakeholders' analysis as a latent group, which means they put a low priority on MPAs, but their participation is considered vital in sustaining the MPA for Irrawaddy dolphins.

The CHED DARE TO Project of the USLS has somehow raised the awareness of the small fisherfolk on the importance of protecting the habitats of the Irrawaddy dolphins and has engaged them in community organizing and alternative livelihood training. However, the fact remains that they continue to live in poverty and remain dependent on fishing as their primary source of livelihood. Therefore, sustaining these initiatives now relies on the local government units of Bago City and Pulupandan, particularly on the need for start-up capitals, training, and marketing support for conservation-based alternative livelihoods of partner fisherfolk organizations and to continually engage them as defenders and active partners in the conservation of their coastal marine resources.

3.3.3 Systemic dole-out mentality

A review of the organizational history of fisherfolk organizations revealed that their Barangay LGUs organized them to avail of government projects and assistance. Common among them is the aspiration that if they can organize themselves and have unity, it would be easy for them to access assistance and

projects from the government that can address their poverty. While this idea of forming an organization is commendable, it glossed over the importance of collective empowerment and self-reliance as fundamental bases in organizing. Consequently, it has developed a dole-out mentality among the fisherfolk that they will only participate in a community project or program if they see they can benefit from it. As expressed by one fisherfolk leader during an FGD session, to wit:

"tungod bala sg dole out mentality, kabudlay magpatawag sg meeting sa mga miembro kay ma attend lang sila kung may kuhaon sila."

"Because of the dole-out mentality, it is difficult to call a meeting among members because they will only attend if they have something to get."

The defunct Punta Playa Fisherfolk Multi-Purpose Organization in Bago City was a case in point. The barangay organized it in 2011 to avail of a micro-finance project funded by the LGU of Bago City amounting to PHP 300,000. However, after three years of existence, the organization became inactive because its micro-finance project failed due to non-payments of members. The strong dole-out mentality among members and the lack of a capacity-building component from the project's inception explains why they had poor regard for the importance of repayments. Instead, what developed was a dependency mentality which led them to develop the notion that rather than relying on their efforts, it is the government's responsibility to address their situation, and they are entitled to its assistance.

Combatting the dole-out mentality among partner-fisherfolk organizations was the challenge that members of the CHED DARE TO-USLS Alternative Livelihood Study Group had to contend with. It was only after a series of dialogues and consultations with their leaders and members that they participated in this program.

3.3.4 Community organizing approach and sustainability

Reviewing the community organizing efforts of the USLS and its partner institution, the Bago City College, in engaging fisherfolk communities in Bago City and Pulupandan, one can surmise that the approach they adopted was community building. According to Smock (2004, as cited in Ohmer et al.

2008), the goal of community building is to “build the internal capacity of communities by focusing on their assets/strengths, and engaging a broad range of community stakeholders to develop a quality and technically sound comprehensive plans.” Community organizing efforts began with assessing the status of fisherfolk organizations to identify the gaps in how they can be strengthened. This was followed by capacity-building training such as leadership, team building, project management, and awareness-raising on environmental and fisheries issues, especially on the critical habitats of Irrawaddy dolphins. The findings of the alternative livelihood assessment were presented for validation by partner-fisher folk organizations using a participatory action research approach, and the latter used the findings in drawing the action plans of their organizations, including training on alternative livelihood. However, community organizing efforts were not sustained by USLS because the engagement was a co-terminus with the end of the CHED DARE TO Project. Although an exit plan was provided, including the endorsement of alternative livelihoods developed by fisherfolk organizations for support by their local government units, the mechanisms to sustain community organizing were not addressed due to budget and resource limitations.

The primary goal of engaging fisherfolk communities in community organizing is for them to take an active role in addressing their poverty condition and becoming active partners in the conservation efforts to protect their coastal waters, the habitats of Irrawaddy dolphins. However, this necessitates more efforts in community organizing, a process that requires more resources, time, and support, especially from stakeholders with a solid commitment to conservation.

Perhaps, a shift in the community organizing approach can be considered towards consensus organizing because environmental conservation necessitates the involvement of various stakeholders. “Consensus organizing uses a technique called parallel organizing in which community organizers mobilize and bring together the interests within the community, as well as the political, economic, and social power structure from outside the community” (Chaskin et al. 2001). Its goal is to develop a “deep, authentic relationships and partnerships among and between community residents and stakeholders, and members of the external power structure to facilitate positive and tangible community change” (Ohmer et al. 2008).

The eight fisherfolk organizations have been recognized by their respective LGUs as local partners in conserving the habitats for Irrawaddy dolphins. In the exit plan, they were encouraged to work for their accreditations at the LGU and DOLE-BRW to legitimately access services and engage in projects with them. For instance, the fisherfolk organizations in Bago City were encouraged to submit their livelihood project proposals to their LGU as it already allotted a two-million pesos fund to support the MPA establishment and livelihood for fisherfolk communities. Those in Pulupandan were encouraged to tap the support and services of their Municipal Agriculture Office and play an active role in the Municipal Fisheries and Aquatic Resource Management Council.

Sustaining the fisherfolk organizations after the CHED DARE TO Project would depend on how their respective LGUs would continue supporting and engaging them in conservation programs. Since the LGUs of Bago City and Pulupandan are members of the Negros Occidental Coastal Wetlands Area Management Alliance (NOCWAMA), they can integrate these organizations into their programs and activities. They can also facilitate them on how they can access support and services from the Provincial Environment and Management Office and other agencies.

The community organizing efforts of CRE-USLS through CBAL brought together the fisherfolk organizations of Bago City and Pulupandan on a common cause—i.e., to protect the habitats of Irrawaddy dolphins and be empowered as active local partners. Since there is a need for closer collaboration between the two LGUs in protecting the habitats of Irrawaddy dolphins, the involvement of fisherfolk organizations can be maximized by building an alliance among them. Through this, they can work together in protecting their coastal waters and the remaining population of Irrawaddy dolphins against illegal fishing and other forms of threat. In addition, they can be tapped as local defenders vis-à-vis the threat posed by an impending proposal to construct a bridge connecting Negros Occidental and Guimaras Island.

3.3.5 Support of local government units

After barely three years of engagement under the CHED DARE TO Project, fisherfolk organizations in Bago City and Pulupandan are relatively at different levels in terms of organizational development. While some pursued their plans to formalize the legal

personality of their organization by registering at DOLE-BRW and applying for accreditation at their respective local government units, others remained at the core group level. Attaining the accreditation and legal status of the organization is crucial in availing of government projects and assistance as required under the New Local Government Code. It appears that organizationally, they still need to strengthen their cohesion and capabilities, and all these require support primarily from their local government units. However, the two local government units have varied responses supporting their organization and the conservation of the habitats for Irrawaddy dolphins.

The LGU of Bago City showed its firm resolve for an MPA for Irrawaddy dolphins in its coastal water and allotted a budget for its implementation, including provisions on alternative livelihood for fisherfolk organizations. On the other hand, the LGU of Pulupandan has no clear articulation of its stand on MPAs and support to fisherfolk organizations in its locality.

3.3.6 Recognizing the role of women

Gender is a crucial issue in the fisheries sector as gender role prescriptions traditionally remain largely patriarchal. For example, there is a dichotomy in the household division of labor; men are viewed as providers being hunters and fishers, while women are expected to do domestic chores such as caregiving. However, society's traditional gender role prescriptions have become irrelevant because many women have been compelled to engage in gainful work to contribute to their families' income due to poor economic conditions. Harper et al. (2013) assailed that "despite technological advances in fisheries, many of the traditional ideologies concerning gender roles in fisheries have remained relatively unchanged, and governance has failed to recognize the unequal division of labor."

The participation of women fisherfolk in community organizing, alternative livelihood, and conservation of the habitats of Irrawaddy dolphins was very significant. Of the eight fisherfolk organizations in Bago City and Pulupandan, three are women-led and whose membership is comprised mainly of women. Women were mainly the active participants in community organizing and alternative livelihood activities because their husbands were not available as they were out fishing. They were the overwhelming participants of the alternative livelihood training on "pandan" weaving and extractive livelihood

shell-crafts making. What is explicitly implied by this finding is that women play a vital role in the sustainability of fisherfolk organizations and the overall conservation efforts in protecting the habitats of Irrawaddy dolphins. As asserted by Ram-Videsi (2015), "programs on community-based resource management systems must ensure that community decision-making is inclusive of women because they not only represent an important stakeholder group of resource users but they also interact with children very closely who represent the future generation of resource users."

4. CONCLUSION

The coastal waters of Bago City and Pulupandan are the core habitat of the Critically Endangered Irrawaddy dolphins (*Orcaella brevirostris*), locally known as "lumba-lumba." They have been the subject of many types of research and conservation initiatives by various stakeholders in the past decade. The establishment of an MPA was deemed crucial in ensuring the conservation of the said habitats. However, its realization depends on the participation of those who have greater stakes as resource users- fisherfolk communities and fisherfolk organizations.

Engaging fisherfolk communities in conserving the habitats was a painstaking process as it involved research, community organizing, and advocacy works. At the start of this study, fisherfolk communities were hardly organized, and their fisherfolk organizations were mostly inactive. Most of them were apprehensive about participating. They had reservations about the MPA because they believed it would restrict them from engaging in fishing as their primary source of livelihood. The communities were identified as a latent group. Their participation is considered necessary in marine resource conservation but initially paid no interest in it. However, through community organizing and a series of dialogues with them, they acceded to participate in the CHED DARE TO Project. The conservation-based alternative livelihood introduced as an approach succeeded in determining alternative livelihoods for fisherfolk organizations in Bago City and Pulupandan through a participatory process and has organized them to become active partners in conserving the habitats of Irrawaddy dolphins.

The experiences in engaging fisherfolk organizations through conservation-based alternative livelihood yielded some issues and lessons. First,

poverty posed as a barrier to conservation because as long as it is not addressed, small fishers finding no alternative means will continue to depend on fishing to sustain their daily survival. Conservation initiatives such as establishing an MPA were regarded as a threat to food security by fisherfolk communities. However, once their commitment is taken and their inclusion is assured, they can be strong defenders of the MPAs.

Another issue is the solid dole-out mentality that developed among members of fisherfolk organizations because they will only participate in a community project or program if they see immediate benefits. In addition, they have a common notion that the purpose of organizing is to avail of government assistance and projects rather than to empower themselves to become self-reliant. Consequently, it developed thinking among them that it is the responsibility of the government to address their situation and that they are entitled to its assistance.

Gender is a crucial issue in the fisheries sector as gender role prescriptions traditionally remain largely patriarchal. The participation of women fisherfolk in community organizing, alternative livelihood, and conservation of the habitats of Irrawaddy dolphins was very significant. Not only did they comprise the majority of the members of fisherfolk organizations, but they were also the most active participants. Given this vital role of women, there is a need to integrate gender as a dimension in the sustainability of fisherfolk organizations and the overall conservation efforts in protecting the habitats of Irrawaddy dolphins.

Community building was the community organizing approach adopted in organizing the fisherfolk communities, but the process was short-lived as the engagement was co-terminus with the end of the project. Given that environmental conservation necessitates the involvement of various stakeholders, a shift towards consensus organizing as a community organizing approach could have been a better option.

After barely three years of engagement under the CHED DARE TO Project, fisherfolk organizations in Bago City and Pulupandan are at different levels of organizational development. They still need to strengthen their cohesion and capabilities and work for their accreditations with the DOLE-BRW and their respective LGU to have the legal personality to engage in business and projects. In addition, they need to be more active in engaging their LGUs and other stakeholders, especially for their alternative livelihoods and environmental advocacy.

There is a need for the LGUs of Bago City and Pulupandan to continue assisting them in their

alternative livelihoods to sustain the fisherfolk organizations and ensure their participation in establishing the MPA for Irrawaddy dolphins and other environmental conservation-related programs such as in NOCWAMA. Furthermore, on the part of USLS, there is a need to recognize the fisherfolk organizations as one of its partner communities, more particularly in the light of the poverty reduction program of the De La Salle Philippines and its Christian Learning Service Program.

ACKNOWLEDGMENTS

This paper is extracted from the USLS-CHED DARE TO project terminal report funded by the Commission on Higher Education. The authors would like to acknowledge the contributions of the members of the Alternative Livelihood Study Group, namely, Mrs. Dayana Somcio and Mr. Jose Gil De la Cruz of the Bago City College, and Dr. Jackqueline Felix and Ms. Dessa Medina-Cape of the Yu An Log College of Business and Accountancy of the University of St. La Salle; and the local government units and the fisherfolk organizations of Bago City and Pulupandan.

AUTHOR CONTRIBUTIONS

Aguilar V: Project administration, Conceptualization, Data gathering, Data interpretation and analysis, Writing - reviewing and editing.
Tabujara D: Conceptualization, Data gathering, Data interpretation and analysis.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

ETHICS STATEMENT

The study adhered to the ethical guidelines in research, such as securing free prior informed consent from participants and ensuring privacy and confidentiality of data. Consents from the local government units of Bago City and Pulupandan, including the Barangay LGUs concerned, were secured before the conduct of the study. In addition, courtesy visits were conducted with leaders and members of community organizations where they were informed about the purpose of the CHED DARE TO project of CRE-USLS and the importance of their engagement.

REFERENCES

- Aguilar V. 2017. Conservation and management enhancement of Irrawaddy Dolphin Habitats in Bago City and Pulupandan, Negros Occidental: A Stakeholders' Analysis. Protected Areas Management Enhancement Program Report. Bacolod City: USLS University Press. pp. 36–37
- Aguilar V. 2019. The state of the organization and alternative livelihood of coastal communities of Bago City and Pulupandan, Negros Occidental. A Report submitted by the Alternative Livelihood Study Group of the University of St. La Salle to the Commission on Higher Education under CHED DARE TO Research Grant. Bacolod City: USLS University Press. pp. 85–86
- Anabieza M, Pajaro M, Reyes M, Tiburcio F, Watts P. 2010. Philippine Alliance of Fisherfolk: Ecohealth Practitioners for Livelihood and Food Security. *EcoHealth*. 7:394–399. <https://doi.org/10.1007/s10393-010-0334-x>
- Bohannon K. 2018. Sustainable alternative livelihoods approach (SALA): A pragmatic, evidence-based, participatory approach to alternative livelihoods and conservation. https://www.peoplenotpoaching.org/sites/default/files/uploads/2018-11/A%20pragmatic%20evidence-based%20participatory%20approach%20to%20alternative%20livelihoods%20and%20conservation_resource.pdf
- Camacho A. 1999. Major issues, policies, and strategies on fisheries. *Transactions of the National Academy of Science and Technology, Philippines*. 21:120-148. <https://www.nast.ph/images/pdf%20files/Publications/NAST%20Transactions/NAST%201999%20Transactions%20Volume%2021/4%20.%20Major%20Issues,%20Policies%20and%20Strategies%20on%20Fisheries%20%20%20%20%20Arsenio%20S.%20Camacho%201999.pdf>
- Chaskin RB, Brown P, Venkatesh S, Vidal A. 2001. *Building Community Capacity*. New York: Routledge. <https://doi.org/10.4324/9781315081892>
- De la Paz ME, Casipe K, Lirazan ML, Espinosa KE, Yulo EVR, Valderrama MTK, Jarabello CJ. 2017. Irrawaddy dolphins of Bago-Pulupandan: updated population estimate, habitat use, and fisheries interaction. Protected Areas Management Enhancement Program Report. Bacolod City: USLS University Press. pp. 6–7
- Dolar M, de la Paz M, Sabater E. 2018. Orcaella brevirostris (Iloilo-Guimaras Subpopulation). The IUCN Red List of Threatened Species. <https://dx.doi.org/10.2305/IUCN.UK.2018-2.RLTS.T123095978A123095988.en>
- Fauna and Flora International. 2013. Why Not “Alternative Livelihoods”. Reasons we support the development of sustainable livelihoods rather than the promotion of “alternative livelihoods” within our conservation programmes. Conservation, Livelihoods, and Governance Programme. https://www.fauna-flora.org/app/uploads/2017/11/FFI_2013_Why-not-alternative-livelihoods.pdf
- Harper S, Zeller D, Hauzer M, Pauly D, Sumaila UR. 2013. Women and fisheries: Contribution to food security and local economies. *Marine Policy*. 39:56-63. <https://doi.org/10.1016/j.marpol.2012.10.018>
- Manejar AJA, Sandoy LMH, Subade RF. 2019. Linking marine biodiversity conservation and poverty alleviation: A case study in selected rural communities of Sagay marine reserve, Negros Occidental. *Marine Policy*. 104:12-18. <https://doi.org/10.1016/j.marpol.2019.02.015>
- Nalau J, Becken S, Mackey B. Ecosystem based Adaptations: A review of the constraints. *Environmental Science and Policy*. 89:357-364. <https://doi.org/10.1016/j.envsci.2018.08.014>
- Ohmer ML, DeMasi K. 2008. *Consensus Organizing: A Community Development Workbook. A Comprehensive Guide to Designing, Implementing, and Evaluating Community Change Initiatives*. Sage Publications. <https://us.sagepub.com/en-us/nam/consensus-organizing-a-community-development-workbook/book229152>

- Pacalioga J, Gulayan D, Leonares S. 2016. Fisheries profile of Bago-Pulupandan coastal waters. Protected Areas Management Enhancement Program Report. Bacolod City: USLS University Press. p. 34-35.
- Philippine Statistics Authority. 2020. Farmers, fisherfolks, individuals residing in rural areas and children posted the highest poverty incidences among the basic sectors in 2018. Reference No.: 2020-92. <https://psa.gov.ph/poverty-press-releases/nid/162541>
- Quezon M, Alova A, Parreño EA. 2017. Socio economic profile of coastal communities in Bago City and Pulupandan, Negros Occidental. Protected Areas Management Enhancement Program Report. Bacolod City: USLS University Press. pp. 14-15
- Roe D, Booker F, Day M, Zhou W, Webb SA, Hill NAO, Kumpel N, Petrokofsky G, Redford K, Russell D, and others. 2015. Are alternative livelihood projects effective at reducing local threats to specified elements of biodiversity and/or improving or maintaining the conservation status of those elements? *Environ Evid.* 4:22. <https://doi.org/10.1186/s13750-015-0048-1>
- Silliman University Institute of Environmental and Marine Sciences. 2014. Development of a conservation program for Irrawaddy dolphins (*Orcaella brevirostris*) in the Visayas in line with the Coral Triangle Initiative National Plan of Action. Final Report submitted to Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ, Project No. 10.9072.9-001.00 and Contract No. 83126282).
- Woroniecki S, Wamsler C, Boyd E. The promises and pitfalls of ecosystem-based adaptation to climate change as a vehicle for social empowerment. *Ecology and Society.* 24(2):4. <https://doi.org/10.5751/ES-10854-240204>
- Wright JH, Hill NA, Roe D, Rowcliffe JW, Kumpel NE, Day M, Booker F, Milner-Gulland EJ. 2016. Reframing the concept of alternative livelihoods. *Conservation Biology.* 30(1):7-13. <https://doi.org/10.1111/cobi.12607>



© 2022 The authors. Published by the National Fisheries Research and Development Institute. This is an open access article distributed under the [CC BY-NC 4.0](https://creativecommons.org/licenses/by-nc/4.0/) license.