# IPOPCORM\* Initiative on Cuyo Island, Philippines

# **Evaluation Design**

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<sup>\*</sup> Integrated Population and Coastal Resource Management

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### I. Background

Program for Appropriate Technology in Health (PATH) Foundation Philippines, Inc. (PFPI) created the Integrated Population and Coastal Resource Management (IPOPCORM) initiative to address growing concerns in the NGO community in the country about deterioration in the marine ecosystem. PFPI designed the original initiative to address two root causes of environmental damage – population pressures and overfishing. IPOPCORM projects intend to set up long-term sustainable development and to combine population, health and environmental management tools.

IPOPCORM represents a departure from typical PFPI work, which focuses on international health. This new initiative integrates environment and population issues with health topics through four strategic activities:

- 1. Reproductive health education and resources for people in coastal communities;
- 2. Encouraging and building capacity of local communities to manage their own coastal and marine resources;
- 3. Microcredit programs introducing alternative livelihoods to coastal residents; and
- 4. Grassroots community organizing combined with a targeted mass media campaign to increase policymakers' awareness of population-environment links and solutions.

PFPI selected many NGO partners to help with the implementation of IPOPCORM projects in the Philippines. PFPI chose Andres Soriano Foundation (ASF) because of its ongoing work in the region and enlisted ASF local staff to establish IPOPCORM on the Island of Cuyo. <sup>1</sup>

ASF views the opportunity to partner with PFPI as a long-term motivation to expand the IPOPCORM mission to more small islands in the region. It is also a chance for ASF to gain prestige with a successful project funded by a recognized and respected NGO and as a result, increase its funding from other sources. ASF has a long history with local and regional politicians and bureaucrats from its efforts to protect the Amanpulo Resort from extortion (a revenue source from its parent organization, the A. Soriano Corporation).

Management and conservation of marine ecosystems is a new type project for ASF too. ASF engaged in extensive staff training in marine/ocean ecology, Philippine coastal laws, alternative livelihood strategies, and community organizing. Every three months headquarters staff from ASF Manila conducts an internal monitoring and evaluation visit of Cuyo.

The overall PFPI goal for IPOPCORM is to produce changes in attitudes and perceptions about family planning, increase contraceptive use, and establish measures such as Marine Protected Areas (MPAs) to preserve coral reefs and mangrove areas. However, knowing that ASF's strength is in community organizing and that the NGO has no expertise in healthcare issues, PFPI set its sights on a limited initial two-year program on Cuyo.

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<sup>&</sup>lt;sup>1</sup> See Appendix 2 for a diagram of the local and regional government structure in Cuyo.

### **Project Goals**<sup>2</sup>

PFPI's goal for IPOPCORM on Cuyo for the first two years is empowering people to co-manage their environmental resources. PFPI relied on ASF to introduce a community organizing structure on the island, which is one of a few places in the Philippines where NGOs are not a common presence. Its long-term goal is to lay the groundwork for introducing reproductive health strategies on Cuyo.

At the two-year mark of the program, PFPI is about to decide if it will renew funding for the project and wants to add two programs:

- Family planning and reproductive health education and contraception commodities; and
- Microcredit lending to support alternative livelihoods for the residents of Cuyo, especially the fishing community.

PFPI also wants to expand the program to the neighboring Municipality of Magsaysay.

ASF's goal for IPOPCORM on Cuyo is intertwined with PFPI's: Use community organizing to raise awareness among fishers and the greater coastal communities in Cuyo about the impact of cyanide fishing on their environment and livelihood.

At the end of two years, ASF local staff wants to introduce a new approach:

 Advocacy campaign to gain influence with uncaring and antagonistic local government officials.

### **II.** Evaluation Goals

As part of the program assessment, PFPI and ASF hired two external evaluators to assess the two-year project of IPOPCORM on Cuyo Island. The goal of this evaluation is to determine: 1) ASF's success in effectively achieving its project objectives as stated above with regard to the community organizing and social issues; and 2) the organization's impact on overarching IPOPCORM goals.

More specifically, this evaluation is designed to address the following questions:

- Is ASF establishing relationships of trust with Cuyo residents?
- To what extent are Cuyo residents learning about the importance of marine resources protection and the dangers of cyanide fishing through ASF's efforts?
- To what extent are Cuyo residents applying their new knowledge when possible?
- To what extent do Cuyo residents feel politically empowered to protect their environment and influence the local policy process?
- What impact do IPOPCORM programs have on marine resource protection and management?

The evaluation will also identify the key factors leading to the success and shortcomings of the program so far. Based on the factors, the evaluation will provide recommendations to both ASF and PFPI staff. PFPI staff can use the evaluation result to decide whether or not to continue

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<sup>&</sup>lt;sup>2</sup> See Appendix 3 for a detailed breakdown of ASF and PFPI goals and outcomes for IPOPCORM.

funding ASF; while ASF can learn from the results and improve its programs on Cuyo Island. Both will better understand if and how to expand IPOPCORM on Cuyo.

In the below sections, we present the underlying program theory and a logic model of ASF's project on Cuyo Island. We identify the desired outcomes and indicators for the evaluation and discuss their validity and reliability. Then we provide the evaluation design and a sample survey (in Appendix 1) that we will use to collect information for the evaluation.

### **III.** Program Theory

The following are two models that illustrate how the IPOPCORM project works on Cuyo Island. The first model is a Theory of Change – demonstrating the flow between program activities by ASF staff and mechanisms of change, or the actions that the program participants take as a result of ASF's staff efforts. This model includes a detailed list of assumptions, implementation problems, external problems and conflicts between ASF and PFPI priorities – all collected from our initial interviews with leaders from both NGOs that help us establish the program details as we prepare for evaluating it.

The second figure is a logic model – a different representation of the program flow that helps us illustrate where the implementation and impact analyses overlap (around the "outputs") – a distinction that will become important in our evaluation design.

Figure 1: Theory of Change - IPOPCORM in Cuyo

#### Implementation Theory (program activities) Program Theory (mechanisms of change) ASF chooses a barangay for IPOPCORM project (based on: coastal, populous, youth); Community Organizers (COs) assigned 2 Barangay council adopts IPOPCORM formally barangays each, develop relationships with local political leaders (captains and councils) and fishers & their families Α COs form People's Organizations (POs) POs create songs, plays, other community With fishers' wives, elders, fishers, youth, etc. events to educate fellow villagers on ocean as participants: conservation Fishermen's PO C Youth PO COs form and train Barangay Fisheries and → BFARMCs (made up of council members, PO **Aquatic Resource Management Committees** members, other leaders): Establish MPAs (via Participatory (BFARMCs) in Philippine coastal laws and establishing and enforcing Marine Protected Coastal Resource Assessment – PCRA) Helping map where to put Areas (MPAs) **MPAs** Coordinate adoption of MPA in council Enforce MPAs by patrolling E; F; G; H; I; J ASF organizes Study Tours for each barangay -Study Tour participants share what they about 10 people (BFARMC and PO members) learned with their BFARMCs, POs, local travel to other provinces to observe successful politicians (councils) and barangay community coastal MPAs K ASF, POs and BFARMCs organize Mangrove 100 or so villagers from each barangay Plantings and Coastal Cleanups in each participate in each MP & CC event assisted barangay, four times per year L; M

### Theory of Change: Legend ASF – Implementer; PFPI - Funder

#### **Assumptions**

Implementation problems
External –factor problems
Conflicts b/n ASF and PFPI priorities

Overall assumption: Relationship-building (b/n ASF staff and local fishers, politicians and community leaders), Education and Empowerment are the most effective ways to lay the groundwork for achieving sustainable fishing & coastal environmental protection in all assisted barangays; as well as building up to political advocacy (ASF) and reproductive health & microcredit lending/economic development programs (PFPI) in the future.

Main external factors:

- o Political complexity (even corruption) of live fish trade on Cuyo (and broader in Philippines)
- o Demand for live fish in Manila and China
- o Illegal fishers: migrant and transient who are also perceived as dangerous

A: Takes 1 year vs. the 3-month priority of PFPI

B: Council members and fishers trust the COs

C: Art is helpful in teaching conservation lessons to local residents

Raising awareness about the problems empowers residents to act

POs are effective at:

- Giving communities a voice in political process
- Educating villagers re:
  - Coastal ecosystems
  - Coral reef protection
  - Fish populations
  - Cyanide fishing

D: Confusion among Cuyo villagers about membership and purpose of BFARMCs

E: MPAs empower local fishers and other resource users to participate in conservation

F: MPAs are the most effective tool for coastal management at Cuyo (ASF chose this tool; it has been effective elsewhere in the Philippines, but is Cuyo unique?)

G: Violators arrested by MPA patrols are released by municipality government

H: Compressors – municipal governments did not pass ordinances to make these tools of cyanide fishing illegal (though cyanide fishing itself is illegal)

I: BFARMC members' enthusiasm has gone down

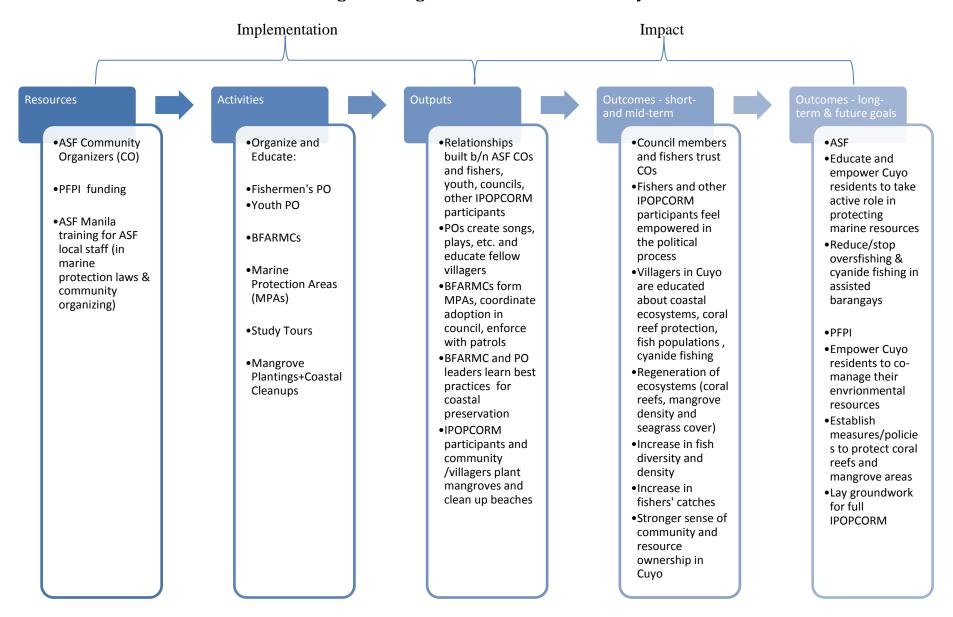
J: BFARMC members lack resources (asked ASF for help): high-speed motor boats, gasoline, radios, search lights for nighttime patrol, stipends for the patrol teams (as incentive to continue the work that often seemed fruitless when arrested violators are released by municipal government)

K: Learning from others' successful MPAs empowers villagers to reform Cuyo's own fishing industry and conservation efforts

L: Community events educate people on the importance of mangroves (environmental & resource)

M: Serve as a mechanism to reforest cut down mangrove areas

Figure 2: Logic Model - IPOPCORM in Cuyo



### IV. Outcomes and Indicators

The data collection methods and tools will focus on the following outcomes and indicators to best measure the implementation process and the impact of the IPOPCORM project. The outcomes are arranged in sequential order: immediate, intermediate to the ultimate outcomes for this two-year project.

Outcome	Indicator	Method
ASF staff develops relationships of trust with IPOPCORM participants	Cuyo residents know their COs	Survey
•	At what level Cuyo residents are comfortable speaking to their COs	Survey
	At what level Cuyo residents believe/trust their COs when COs teach villagers about sustainable fishing practices?	Survey + Interview
	COs feel respected in their assigned barangays	Interview
Villagers on Cuyo Island realize the importance of marine ecosystem protection	Number of villagers attending education events put on by the POs (plays, concerts, plantings, cleanups)	Survey
	Percentage of fishers using sustainable fishing methods e.g. hook and line	Survey
	Percentage of respondents who know local Cuyo fishers who engage in illegal fishing	Survey
Cuyo residents feel politically empowered	Change in the number of residents who regularly participate in barangay council meeting (assume we will have baseline data)	Survey + Documents
	Number of residents attending PO meetings	Survey + Documents
	Number of residents who help patrol MPAs	Survey + Documents
IPOPCORM enhances the management of marine and coastal	Number of Marine Protected Areas (MPAs)	Documents
resources at community level for the	Number of new regulatory	Documents

10 participating barangays on Cuyo	environmental measures		
Island	Changes in penalties for illegal	Documents	
	fishing practices		

### **Outcome 1: ASF staff develops trusting relationships with IPOPCORM participants**

This is the foundation of the IPOPCORM project. ASF staff must develop trusting relationships with the key community members such as fishers, their wives and the village's youth population before they can implement the project activities.

### Indicator 1.1: Cuyo residents know their COs

The evaluators will do the survey among Cuyo residents to assess their acquaintance with their COs from ASF as a foundation of a trusting relationship.

*Validity*: This is a direct measure and first step of the outcome. However, even if a respondent knows who their CO is, this may not show that ASF staff did a good job in communicating with Cuyo residents during the two years.

**Reliability:** Self-reporting is not highly reliable. Also, a respondent may give a different answer if they happen to find out from a neighbor what the survey questions are and learn their CO's name just to be able to show that they are paying attention. Care should be taken to avoid plagiarism.

### Indicator 1.2: At what level Cuyo residents are comfortable speaking to their COs

The evaluators will do the survey among Cuyo residents to assess their willingness to communicate with their COs as another factor of a trusting relationship.

*Validity:* This is also a direct measure of the outcome.

**Reliability:** Here again, self-reporting is of concern. Survey respondents may say they are comfortable speaking with their CO, even if they are not. The evaluators will need to put interviewees at ease and establish trust in their own right, to help respondents feel safe and share their true feelings.

# *Indicator 1.3* At what level Cuyo residents believe/trust their COs when COs teach villagers about sustainable fishing practices?

The evaluators will conduct the survey among Cuyo residents to figure out residents' confidence level of what COs say. The evaluators may also conduct interviews with residents to figure out the underlying reason for the survey results.

*Validity*: Even if Cuyo residents feel comfortable speaking with their COs, it doesn't necessary mean they believe COs' statement about sustainable fishing practice and the danger of cyanide fishing. This is an indirect but important measure of trust. One possible concern is that some residents may not believe what their CO says, but this may be because of some outside factors, not necessarily because they don't trust the CO.

**Reliability:** Once again, self-reporting is a concern and survey respondents may be tempted to say they believe the CO, so their answer will reflect positively on themselves. Also, trust relationships grow over time, so doing the survey at a later point is likely to yield different results. Since we are interested in the two-year mark, however, this should not be a major problem.

### Indicator 1.4 COs feel respected in their assigned barangays

The evaluators will conduct interviews with COs from the local ASF staff to identify their point of view on the trusting relationships.

*Validity*: The trusting relationship is two-way. Besides the views of Cuyo residents, it is necessary to get the feedbacks from other important stakeholders-the COs from ASF. *Reliability*: At different time periods, COs may have different feelings of respect. The results may be subjective depending on whether a CO has had a good or bad week on the job and whether they feel confident or insecure.

# Outcome 2: Villagers on Cuyo Island realize the importance of marine ecosystem protection

This is an intermediate goal of the IPOPCORM project after ASF staff builds trusting relationship with Cuyo residents. Whether Cuyo residents realize the importance of marine ecosystem protection or not decides the success or failure of achieving the project goal.

### Indicator 2.1 Number of villagers attending education events put on by the POs

The evaluators will survey Cuyo residents to assess their involvement of education activities such as plays, concerts, mangrove planting and coastal cleanups. It's the preliminary of gathering information about importance of marine ecosystem protection.

*Validity*: ASF uses POs as the main mechanism to educate villagers and disseminate information within the barangay about the importance of the coastal ecosystems. The more villagers attend the education events, the higher possibility they have opportunity to know the importance of marine ecosystem protection. This is an indirect indicator – it is possible that people come to the events just for fun and don't acquire the information of the importance of marine ecosystem protection if they don't carefully listen to the events.

**Reliability:** This depends on how long ago the last set of events took place and if villagers are able to remember if/when they attended those events.

### Indicator 2.2 Percentage of fishers using sustainable fishing methods

The evaluators will conduct survey to assess whether ASF's programs change the actions of villagers' fishing methods.

*Validity*: If Cuyo residents realize the importance of marine protection, they will probably change their behaviors and apply what they learn to their fishing practice. However, people who use sustainable fishing methods may do so because of tradition, not necessary because of the intervention of ASF program.

**Reliability:** People may not be honest on a survey and may be more likely to say they use good fishing methods, even if they do not.

# Indicator 2.3 Percentage of respondents who know local Cuyo fishers personally who that engages in illegal fishing

The evaluators will assess whether ASF's programs will gradually stop the illegal fishing actions like cyanide fishing.

*Validity*: We assume that respondents may not be willing to answer the question whether they are involved in illegal fishing themselves.. It may be better to ask the respondents about the increase or decrease of illegal fishing around them, indicating villagers' knowledge about the importance of good fishing practice and the danger of illegal fishing.

**Reliability:** The respondents may not be sensitive about the changes around them. Even if the illegal fishing activities decrease, they may still perceive the problem as prevalent. Besides, since illegal fishing may badly influence their life, strong negative feelings may make them overstate the situation, which causes the bias of the answer.

### Outcome 3: Cuyo residents feel politically empowered

The next intermediate outcome of the IPOPCORM project after Cuyo residents realize the importance of marine ecosystem protection is to empower them.

# Indicator 3.1 Change of in the number of residents that who always regularly participate in barangay council meeting (assume that we will have baseline data)

The evaluators will conduct survey and refer to the council documents to assess the residents' attendance of barangay council meeting and whether residents influenced by IPOPCORM project are more likely to attend meetings.

*Validity*: We assume that barangay council has the baseline data of the residents' attendance. Comparing the number of residents' attendance before and after the ASF intervention may reflect the Cuyo residents' political empowerment level. Comparing the change to the increase or decrease in attendance for the comparison group will provide further information.

**Reliability:** It is likely to be reliable because the measurement relies on the formal council documents – evaluators will attempt to use the data from the documents to confirm the self-reported data in the survey.

### Indicator 3.2 Number of residents attending PO meetings

The evaluators will assess the number of residents who become PO members and the number of villagers who regularly attend PO meetings (even if they are not members).

*Validity*: ASF used the POs as the main mechanism to give members legitimate voice within local government system to protect the environment by themselves. The more people become PO members, the more involvement Cuyo residents have in the political process. This is a good measure because the POs are created by ASF staff and therefore this indicator is directly linked to the IPOPCORM intervention.

*Reliability*: This indicator is likely to be reliable because the evaluators can refer to the PO meeting documents to confirm the survey data.

### Indicator 3.3 Number of residents who help patrol MPAs

*Validity*: Those who want to patrol MPAs have to attend intensive trainings in Philippine coastal laws and how to detect illegal fishing activities in their waters. They are likely to be highly politically empowered to protect the environment.

**Reliability:** This is likely to be reliable because the evaluators can refer to the formal BFARMC documents to gather the data.

# Outcome 4: IPOPCORM enhances the management of marine and coastal resources at community level for the 10 participating barangays on Cuyo Island

This is an ultimate desired outcome for the IPOPCORM project that focuses on the social impact as well as the environmental goals of the program. All information for the three indicators can be collected by documents.

#### Indicator 4.1 Number of Marine Protected Areas (MPAs)

*Validity*: ASF decided that MPAs were the most effective way to encourage sustainable fishing and coastal environmental protection in all of its assisted barangays. In that context, this is a direct indicator of ASF's efforts.

**Reliability:** This is likely to be reliable because the evaluators can refer to formal documents to gather the data.

### Indicator 4.2 Number of new regulatory environmental measures

*Validity*: Passage of new regulatory measures by local governments to protect critical marine ecosystem can be seen as an achievement for IPOPCORM project to enhance the management of marine and coastal resources. The comparison barangays will help the evaluators find out if the trend is due to IPOPCORM intervention or some other factors common to the Cuyo Island. *Reliability*: This is likely to be reliable because the evaluators can refer to formal documents to gather the data.

### Indicator 4.3 Changes in penalties for illegal fishing practices

*Validity*: The comparison of the numbers of penalties and/or fishing gear confiscated before and after the ASF intervention shows the better or worse management of marine and coastal resources. Once again, the comparison barangays will help make this indicator more valid. *Reliability*: This is likely to be reliable because the evaluators can refer to formal documents to gather the data.

### V. Evaluation Design

Keeping in mind the goals of ASF and PFPI (Appendix 3) and the Program Theory developed from our conversations with both of our clients, PFPI Project Director Dr. Joan Castro and ASF Executive Director, Lemia Simbulan, we propose an evaluation primarily focused on community organizing and social issues. We believe these issues fall in the implementation silo of the IPOPCORM program in Cuyo and they are the precursor to any environmental impact changes. Because of the natural overlap between implementation and impact aspects of any program, we do include some impact analysis – for example, the outcome concerning environmental management.

Thus, we recognize the interconnected nature of social and environmental issues in Cuyo, but we generally associate community organizing and social issues with program implementation – that is, how well the IPOPCORM projects are run by ASF staff. We will focus less on environmental issues, which we generally associate with program impact – the results/consequences of the IPOPCORM intervention on the island.

### Methodology

Since both ASF and PFPI appear inclined to continue the IPOPCORM project in Cuyo but want to know what has worked well so far in the first two years, we propose a mixed approach to this evaluation with an emphasis on implementation.

*Process/Implementation Evaluation* – we will design our evaluation largely around the activities, outputs and short/long-term outcomes (see Figure 2: Logic Model). Since there has been no

formal implementation evaluation undertaken, we believe it is necessary to spend time and effort on this, even if it may seem trivial to our clients who are more interested on the results from the two-year program. Because the conversations we have had with both ASF and PFPI leadership lead us to anticipate some problems with the activities and outputs (both in how well they were executed and how long it took to complete them) we aim to measure these and seek explanations for any problems we detect.

We plan to collect both quantitative and qualitative data for analysis. Because we do not have a lot of baseline data (before ASF started the IPOPCORM program on Cuyo) we propose a mix of both experimental and quasi-experimental research methods. For both types, we will draw our comparison samples from the three coastal barangays in the Municipality of Cuyo that do not yet have the IPOPCORM program (see Appendix 2).

Quasi-experimental Methods – we will use this approach for the qualitative data collection. We will use the three coastal barangays in the Municipality of Cuyo that do not yet have IPOPCORM and match them with three of the 10 coastal barangays that do have the program. We will match them based on geography (all are coastal) and based on the other characteristics that ASF used when selecting which barangays to service: population size, proportion of youth (between 15 and 19 years old), and proportion of population who are fishers.

We can draw a few pieces of baseline information – such as the number of villagers who attended barangay council meetings two years ago, now (two years into the IPOPCORM program) and we will continue to track that in the future. This data will be pulled from minutes and other documents from council meetings.<sup>3</sup>

Most of the information, however, will be collected by surveys from this point (two years after IPOPCORM began on Cuyo) and moving forward. Since we anticipate ASF and PFPI to want to include the three coastal barangays we are using in the evaluation as a "comparison group" we propose a design where we collect data from the participants and comparison groups now and again in two years, after our comparison group has had IPOPCORM program:

$$egin{array}{ccccc} Now & 2 \ years \ from \ now \\ O_1 & X & O_3 \\ O_2 & X & O_4 \\ \end{array}$$

### Where:

X=2 years of IPOPCORM program

O<sub>1</sub>=data from three coastal barangays in Municipality of Cuyo now

O<sub>2</sub>=data from three matched coastal barangays who do not currently have the program

O<sub>3</sub>=data from original three participating barangays after 4 years of IPOPCORM

O<sub>4</sub>=data from the same three barangays as O<sub>2</sub>, but 2 years from now

*Quantitative Data* – within this naturally occurring comparison group of three barangays we will randomly select a sample of 30+ respondents from each barangay to take our surveys; we will randomly select samples of 30+ respondents from each of the three participating IPOPCORM

<sup>&</sup>lt;sup>3</sup> See Outcomes and Indicators, we use this data point as an indicator of political empowerment.

barangays as well. This will ensure we have large enough sample sizes and therefore, statistically significant data to analyze from the surveys.

#### **Tools**

We will use four types of tools to collect the data for the evaluation:

- Surveys two versions:
  - o Participating group
  - Control group (this version will not include a few program-specific questions that don't apply)
- Documents (such as minutes from local council meetings, attendance records for POs, BFARMCs, local legislative calendars, etc.);
- Interviews:
  - o IPOPCORM participants
  - o ASF staff local COs; and
- Participatory exercises

We will conduct the surveys first and in person – beginning to establish rapport with the local community. From our pre-interviews with ASF leadership, we know that establishing relationships of trust is an important and relatively slow process in Cuyo and we want to build that up as evaluators. This would serve a dual purpose:

- 1. Establish trust in the local community that will allow us to conduct more effective interviews and participatory exercises;
- 2. Data from the surveys will help inform our interview questions and participatory exercise designs we will have some preliminary set up, but will use the survey analysis to find patterns, problems, successes and then use the interviews and exercises to find out why these trends take place.

Some data collected from the documents will be used to triangulate our data (confirm/compare to the answers people give in the surveys).

#### **Data Sources**

Surveys

We will create surveys for several groups of stakeholders (groups and individuals who have an interest in, influence on, or will be impacted by the IPOPCORM project). The surveys will be designed to find out if the problems we have identified in the Program Theory indeed exist and how severe they are. The surveys will be the tool we use most broadly. We will create four types of surveys, for:

- Fishers:
- Barangay captains and council members (local government leaders);
- Youth (because youth are identified as a major constituency by ASF and COs have formed Youth POs, separately from the Fisher POs); and
- Other villagers active in the fishing community fishers' wives, village elders, etc.

Some of the IPOPCORM-specific questions (such as whether respondents know who their barangay's assigned CO is) will be omitted for the comparison group (simply because they do

not apply there), but otherwise the surveys will be the same, to allow for direct comparison/statistical analysis.

#### Interviews

We will conduct interviews with smaller numbers of respondents than the surveys. We will specifically focus on:

- Fishers and their families;
- Youth:
- ASF local staff; and
- Local politicians.

Here, once again, we will attempt to triangulate our data by collecting information on similar questions from different stakeholders – to best understand the implementation failures and successes of IPOPCRM on Cuyo from several different perspectives.

#### Participatory Exercises

Lastly, we will design a few participatory exercises – for example, to help us find out how IPOPCORM participating fishers rank fishing techniques based on sustainability or dangerous methods for their environment. We will conduct only a few of these and with only:

- Fishers in the IPOPCORM participating barangays;
- Fishers in the three barangays that do not yet have the program.

This is one more tool for triangulating our data and making sure that we will be able to determine causality between IPOPCORM and social issues (education on environmental issues) as best as possible. Participatory exercises should put fishers at ease and hopefully give the most in-depth explanatory data.

### VI. Assessment of Evaluation Design

In this section we will discuss the tradeoffs we have to make between optimal evaluation design and the reality of the IPOPCORM project. We will highlight some of the main strengths and weaknesses of the proposed program evaluation.

### Threats to internal validity

We have attempted to build in a lot of data triangulation and this will ensure our conclusions from the data analysis (both quantitative and qualitative) are cross-referenced from different stakeholders' points of view. We have also proposed a matched comparison group approach that should help ensure we have fairly strong causal links between the IPOPCORM program and the outcomes we will measure. Because both the comparison and participation groups are from the same municipality, we expect to have successfully controlled for most external factors that may contribute to the outcomes instead of IPOPCORM itself.

### **External validity**

We are less sure of the external validity of this program evaluation. The Island of Cuyo is relatively secluded and many of its natural marine resources are in much better state than other parts of the Philippines. In a way, this is what makes Cuyo a great target for the IPOPCORM

program. However, it may also be a factor contributing to less environmental awareness among local fishers who have not yet experienced severe fish shortages to the extent that their peers in other parts of the country may have. Also, the problem of transient and migrant fishers may be more severe in Cuyo than elsewhere. Given these unique characteristics of the island, using this customized program evaluation design to judge the success of IPOPCORM programs in other parts of the Philippines may not be a suitable approach.

Also, the partnership between PFPI and ASF made the local IPOPCORM Cuyo program have an emphasis on community organizing and environmental issues, but no health, population and economic development programs yet, making this evaluation too limited in scope to be used in other IPOPCORM-participating islands.

### Limitation of the evaluation: Strengths and weaknesses

One of the main strengths of our design is its comprehensiveness. Once again, the multiple triangulation opportunities built in will serve to double-check our results from various stakeholders and from various data collection tools.

Weaknesses include the lack of baseline data and some uncertainty as to what data we will be able to collect from documents – one of our four tools.

A potential problem with our quantitative data, as collected by the surveys, is that our methodology is not experimental. We are randomizing our samples, but only within pre-selected groups (three participating barangays and three matched non-participating barangays), which weakens the power of our statistical analysis. This method, however imperfect, is a necessity since we are designing an evaluation on a program that has existed for two years and does not include baseline data.

### VII. Conclusion & Future Study

During and after the implementation/process style evaluation, we will be able to advise both of our clients, ASF and PFPI, on how to improve the IPOPCORM program in the coming years. At that point, a more impact-oriented evaluation should be conducted. In addition to the outcome indicators, we will include questions in our data collection tools that help reveal the local fishers' and politicians' priorities for the future (see <a href="Future">Future</a> goals in Appendix 3). Our intention is to help provide some insight to ASF and PFPI on the local community's needs as they each prepare to introduce new programs and expand the IPOPCORM work on Cuyo and other neighboring locales. For an example of how we have integrated such future-looking questions, see Appendix 1: Sample Data Collection Instrument.

Since the future objective of PFPI's IPOPCORM project is to improve reproductive health outcomes of Cuyo villagers and introduce micro-lending for alternative livelihood for coastal residents, future evaluations may focus on deciding whether or not PFPI should expand the project to include these new programs.

### **Appendix 1: Sample Data Collection Tool**

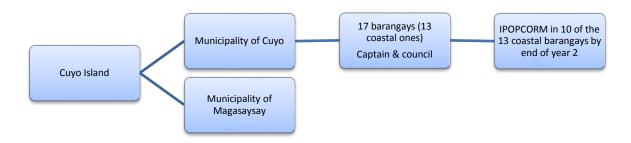
# Cuyo Residents Questionnaire

Name: Baran		Gender:	Age:	Evaluation Date: Occupation:	
	Do y	or fill in the answers to the following the know who your CO is? No (skip question 2, 3) Not sure	ig question	s:	
	If yes	, please specify his/her name			
2.		nat level you are comfortable speaking ates "not comfortable" and 10 indicates 1 2 3 4 5 6 7 8 9 10			10. 1
	Pleas	e specify the reason			
3.		nat level you believe your CO when ice on a scale from 1 to 10. 1 indicat ye" 1 2 3 4 5 6 7 8 9 10	•	-	-
	Pleas	e specify the reason			
4.	exam	you attend any of the education eve ple, plays, concerts, mangrove plant No (go to question 5)			nonth? For
	P	lease rank your favorite events.  lays () Concerts () Mangrove pluses specify)	lanting ( )	Coastal cleanups ()	Others
	o: P	lease check the most useful kind of a marine ecosystem protection.  lays () Concerts () Mangrove places specify)			-
		verall, how do you describe your ex om 1 to 10? 1 indicates "worst expe			
	-	2 3 4 5 6 7 8 9 10			
		Please specify the reason			

5.	Please indicate how much you know about sustainable fishing methods. 1 indicates "not know" and 10 indicates "know very well" 1 2 3 4 5 6 7 8 9 10
	Please list what sustainable fishing methods you know
6.	Did you use sustainable fishing methods in the last month?
	Yes Sometimes No
	How many times did you fish in last month? 0 1 2 3 4 5 6 7 8 9 10 more than 10
	How many times did you use sustainable fishing methods in last month? 0 1 2 3 4 5 6 7 8 9 10 more than 10
7.	Do you notice any local Cuyo fishers who engaged in illegal fishing? Yes No Not sure
	If yes, how many of them? 0 1 2 3 4 5 6 7 8 9 10 more than 10
8.	Are you currently a PO member? Yes No
	If no, have you ever been a PO member? Yes No
	Please specify the reason you became or did not become a PO member
9.	Are you currently a BFARMC member? Yes No
	If no, have you ever been a BFARMC member? Yes No
	Please specify the reason you became or did not become a BFARMC member
10.	Have you trained for MPA patrol? Yes No
11.	Have you ever patrolled MPAs? Yes No
	If yes, how many times? 1-5 6-10 11-15 16-20 more than 20 ###

### **Appendix 2: Government Structure**

The Philippines is divided into provinces; Palawan Province has 23 municipalities; Island of Cuyo is divided into 2 municipalities inside Palawan.



# <u>Appendix 3: ASF and PFPI Goals and Outcomes for IPOPCORM's First Two Years in Cuyo (and Beyond)</u>

Cuyo (and Beyond)
ASF is the program implementer NGO
PFPI is the program funder NGO

ASF	PFPI
Address/reduce/stop 2 main causes of marine environment crisis in Cuyo:  Overfishing Cyanide & dynamite fishing (also – large commercial fleets; illegal fishing from migrant and transient fishers; "corrupt" politicians)	Combat decompression sickness, other respiratory illnesses for fishers who do illegal cyanide diving
Educate and empower Cuyo communities to take an active role in protecting their marine resources	Empower residents to co-manage their environmental resources
Fair & participatory coastal resource management & conservation program	Coastal management project in Cuyo
Reduce overfishing (via MPAs – the approach ASF chose) MPA outcomes:  • Regenerate 3 ecosystems (coral, grass, fish)  • Increase fish variety & density  • Increase fish catches for nearby fishers	Establish measures such as Marine Protected Areas (MPAs) to protect coral reefs and mangrove areas.
Encourage sustainable fishing & coastal environmental protection in all assisted barangays (10 of 13 coastal, 10 of 17 total in Cuyo in first 2 years)	Future: microcredit lending to support alternative livelihoods – for economic development
Short term: Keep ASF on island (PFPI funding)	<u>Future</u> : Introduce reproductive health strategies in Cuyo: family planning education and reproductive health commodities distribution;
Long term: protect marine resources	IPOPCORM broad goals: "Combines population, health, & environmental management – for long-term sustainable development"; example:  • HIV/AIDS education and prevention
Future: advocacy campaign targeting political leaders  ASF Manila: rapport with local govt for	Future: expand to the Municipality of Magsaysay
building political will & local capacity to sustainably manage coastal resources in the long-run	

### **Appendix 4: Program Stakeholders**

We compiled this list of stakeholders (groups and individuals who have an interest in, influence on, or will be impacted by the IPOPCORM project) based on our preliminary conversations with ASF and PFPI leaders. As the evaluation begins we may update this list to more accurately reflect our deeper understanding of the program.

- ASF
  - o COs (local staff)
  - Manila headquarters
- PFPI funders
- Fishers
- Wives
- Youth
- Elders
- Local government
  - o Barangay captains
  - o Councils
- Illegal fishers
  - Migrant fishers
  - Transient fishers
- Regional government
  - Municipality politicians
  - Courts