Roxas Pride Campaign: Environmental and Social Marketing Strategy
Towards Behavioral Change for Sustainable Fisheries at Caramay Marine
Protected Area (MPA) and Adjacent MPAs in Roxas, Palawan

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Abstract

The Roxas Pride Campaign is an environmental and social marketing campaign of the Palawan Council for Sustainable Development Staff in partnership with the local government unit of Roxas, Palawan and Rare, an international non-government organization based in Arlington, Virginia, USA. The campaign covered all of the 18 coastal barangays out of 31 barangays of the municipality of Roxas. Of the 18 coastal barangays, two are island barangays where fishing is considered as the major source of livelihood. As of 2014, there are 14 Marine Protected Areas (MPAs) in Roxas with the Barangay Caramay MPA as the focal site. There are three core zones within the Caramay MPA that are composed of mangrove, sea grass and coral reefs ecosystem. These serve as the habitats of green groupers (*Epinephelus coioides*), endangered dugong (*Dugong dugon*) and high priced lobster (*Panulirus homarus*). With threats such as illegal fishing practices in and around the MPA, the Roxas Pride Campaign aims to change the behavior of fishers to use the right gears/fishing methods at the right place in the MPA which is also geared towards the achievement of conservation result that is more healthy corals and increase the number of fish in the Caramay MPA. Campaign messages, mascots, billboards, social media and community events raised awareness about the MPA and strengthened the management structure of the Caramay MPA. Significant results were observed in terms of increase in Knowledge, Attitude and Practices (KAP) of fishers from 2012 baselines to 2014 post campaign survey. Parallel to this increase is the biophysical increase of coral cover from 20.6% in 2012 to 29.9% in 2014 and an increase in fish biomass from 14.7 MT (Metric tonnes)/km$^2$ in 2012 to 35.5 MT/km$^2$ in 2014.

Keywords:
Pride campaign
social marketing
marine protected area
behavior change
theory of change

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1. INTRODUCTION

The Philippines is at the center of the center of global marine biodiversity as referred by scientists (Carpenter and Springer, 2005). Its waters are home to whales, dolphins, 50 species of sea horses and over 2,000 species of fish, including the largest fish in the world, the whale shark (Rare 2007). Marine resources are also critical to the food security and livelihoods of Filipinos. Fish provides over 50% of their protein requirements and supports the livelihoods of millions of fishers and fish-related industries throughout the country (Rare, 2007). The Philippines is located in the Coral Triangle, a vast region in Southeast Asia made up of 18,500 islands and 647 million hectares of ocean (Figure 1). It is often referred to as the “nursery of the seas” because of the more than 500 species of coral and hundreds of thousands of hectares of seagrass and coastal mangrove forests that shelter and sustain a level of marine diversity unmatched anywhere on the planet (Rare, 2007).

Today, however, the global center of marine biodiversity is under extreme pressure. Over 40% of the reef and mangroves in the region have disappeared in the last 40 years (ADB 2014). Near-shore overfishing is a serious threat to these natural resources, and reversing the effects will require a significant change in human behavior. Less than five percent of the Philippines’ coral reef ecosystems are still in pristine health, and in some fishing grounds, biomass is less than 10% of what it was 50 years ago (Rare, 2007). Most near-shore fishing is conducted by subsistence fishers in coastal communities although illegal intrusion by commercial fishers into municipal waters is a cause for concern.

Developing local people towards addressing the threat of overfishing is increasingly recognized as vital to long-term economic and environmental sustainability in the region. The vision behind this plan, and the Roxas Pride campaign developed under the Rare Pride Program in the Philippines, is to facilitate true community buy-in and ownership of the local marine protected areas. The ‘Rare Pride’ methodology for social marketing is used in implementing the campaign. Through this strategy, the objective is to get the local fisher population as well as the wider community in the barangays surrounding the MPA to treat MPAs as their own and understand the benefits of no-take-areas. Likewise, they should support essential management activities such as enforcement and governance of the MPA.

Figure 1. The Coral Triangle. (Source: www.coraltrianglecenter.org)
2. METHODOLOGY

The Roxas Pride campaign is based upon the Theory of Change, a specific and measurable description of a social change initiative that forms the basis for strategic planning, on-going decision-making, and evaluation. Rare uses this tool to clearly articulate how shifting behaviors and social norms will reduce threats to biodiversity, set targets and measure success, provide a roadmap for Pride Campaign execution, and to ensure strategic alignment among all MPA site stakeholders (Figure 2) (Rare, 2007). The Theory of Change model has been used for more than 20 years by multiple disciplines, but has been adapted by Rare to better link social change to biodiversity threat reduction (Butler et al., 2013). This Theory of Change is customized for the Roxas Pride Campaign as seen in Figure 1 where the SMART objectives goals of the campaign are developed from. Both qualitative and quantitative research methods were used to answer the 11 general research questions shown in Table 1. Specific data collection methods are identified for both types of research during the planning phase. The Caramay MPA management committee performance was assessed through the Management Effectiveness Assessment Tool (MEAT).

 SITE-BASED THEORY OF CHANGE NARRATIVE

Rare's Theory of Change is customized for each cohort and each site, but all follow the same general formula for success:

\[ \text{Knowledge} \rightarrow \text{Attitude} \rightarrow \text{Interpersonal Communication} \rightarrow \text{Barrier Removal} \rightarrow \text{Behavior Change} \rightarrow \text{Threat Reduction} \rightarrow \text{Conservation Result} \]

The Roxas Pride Campaign will help improve coral health and increase the number of fish in the Caramay Marine Protected Area, by 2014. If the fishers from Caramay and other barangays of Roxas will not always use proper fishing gears in the proper zones of the Caramay Marine Protected Area, fish catch will continue to decline. This campaign will help make our fishers use only the allowed fishing gears in the proper zone. And we will address this problem by helping our fishers know more about the allowed fishing gears in the proper zone; by then we can make them agree on following the rules and regulations of the marine protected area, and then make them talk more about the different fishing gears that are allowed. These efforts will then be complemented by empowering the management committee, especially on monitoring and enforcement as well as establishing permanent markers buoys for the different zones of the Caramay marine protected area.

Figure 2. Site-Based Theory of Change Narrative (Roxas Pride Campaign Research Plan 2012)
Table 1. Research Methodology Overview

<table>
<thead>
<tr>
<th>General research question</th>
<th>Research question</th>
<th>Data collection type</th>
<th>When collected</th>
<th>Campaign decision affected</th>
</tr>
</thead>
</table>
| Why is the target audience carrying out their current behavior(s)? | Why are fishers intruding into the MPA core zones? Why are fishers using prohibited gears in the buffer zone? | Qualitative: observational research, in-depth interviews and/or focus groups | Pre-work; Planning Phase | • Audience Segmentation  
• Marketing Mix (5 P’s)  
• Creative Brief |
| Are there multiple audiences that need to change their behavior(s)? | Are there differences among fishers that require further segmentation? Are there any other fishers who fish in the Caramay MPA? | Qualitative: in-depth interviews and/or focus group discussions | Planning Phase | • Quantitative Survey question development  
• Audience Segmentation  
• Marketing Mix |
| Are there audiences that have major influence over your primary audience (i.e key influencers) | Are there any individual(s) or group(s) that has major influence over the behavior of fishers? | Qualitative: in-depth interviews and/or focus groups | Planning Phase | • Target individuals for campaign outreach and support  
• Audience Segmentation  
• Community Mobilization  
• Promotion (5 P’s) |
| What does your target audience(s) perceive as the barrier(s) to taking on the new behavior(s)? | What are the perceived barriers for fishers to stop intruding into the MPA core zone? What are the perceived barriers for fishers to stop using prohibited fishing gears in the MPA buffer zone? | Qualitative: in-depth interviews and/or focus groups | Planning Phase | • Benefits exchange definition  
• Price (5 P’s)  
• Refined KAP Surveys |

These variables are known as the **marketing mix** that is Product, Price, Place, Promotion, and Position.
Table 1. Research Methodology Overview (continuation)

<table>
<thead>
<tr>
<th>General research question</th>
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<th>Data collection type</th>
<th>When collected</th>
<th>Campaign decision affected</th>
</tr>
</thead>
</table>
| What does your target audience(s) perceive as the benefit(s) in carrying out the new behavior(s)? | What information source(s) do fishers rely on for informing their behavior decision-making? | Qualitative: in-depth interviews and/or focus groups | Planning Phase | • Placement (5 P’s)  
• Position (5 P’s) |
| What information source(s) do the target audience(s) look to when it comes to the target behavior? | What information source(s) do fishers rely on for informing their behavior decision making? | Qualitative: in-depth interviews and/or focus groups | Planning Phase | • Promotion  
• Placement |
| Who does the target audience(s) trust as an information source? | Who do the fishers trust for information about their fishing practices? | Qualitative: in-depth interviews and/or focus groups | Planning Phase | • Promotion  
• Placement  
• Message development |
| What is the current state of Knowledge, Attitudes, and Practice (and Stage of Behavior Change, BC) for the target audience(s) and how has that shifted in response to Pride? | What is the current state of KAP among the fishers and how has that shifted in response to the Pride campaign? | Quantitative: KAP survey  
Logbooks  
Other means of verification | Pre/Post campaign surveys  
(Planning Phase and Implementation Phase) | • Material development  
• Pre/Post impact assessment (KAP Survey Questionnaire) |
| What evidence do we have that barrier removal is working? | What evidence do we have that the fishers know the MPA core zone boundaries?  
What evidence do we have that the fishers know the MPA buffer zone boundaries? | Quantitative: KAP survey  
Number of fishers who know where the MPA core & buffer zones | Pre/post campaign surveys; monthly monitoring | • Barrier Removal  
effectiveness tracking  
• Impact assessment  
• Marketing Mix |
| What evidence do we have that target audience(s) are adopting the new behavior(s)? | What evidence do we have that the fishers do not intrude into the MPA core zone?  
What evidence do we have that the fishers do not use prohibited fishing gears in the buffer zone? | Quantitative: KAP survey, Logbooks | Pre/post campaign surveys; monthly monitoring | • Impact assessment on Behavior Change |
3. RESULTS AND DISCUSSION

During the onset of the campaign, it was observed and evident in the survey results that they are not talking about the benefits of the MPA and the right gears to use when fishing in the buffer zone. A Pride Campaign is still needed because interpersonal communication of the fishers is still very low during the pre-campaign stage. Based on the behavior change continuum (shown in Figure 5), the validation stage registered lowest. With the campaign activities focusing on knowledge driven activities, it created a great buzz and the fishers at the validation stage significantly increased in the post-campaign stage.

After developing strategies, conducting various activities and producing good social marketing materials, the knowledge of fishers on restricted activities in the core zone increased by 12.4 percent. The awareness on the presence of markers in the core zone and buffer zone increased by 16.5 percentage point. This was supported by the increase in attendance of fishers in various campaign activities such as meetings, assemblies and information and education campaign (IEC) caravan.

There is a significant increase in the positive attitude of fishers, wherein increase in those who agree that it is important to follow the MPA rules and regulations increased by 4.9 percentage point. Based on the Knowledge-Attitude-Practice (KAP) Survey and analysis of qualitative data, the number of fishers who agreed that fish catch will decline if the MPA has no markers significantly increased. The data monitoring tool also showed increase in support among fishers who volunteered their services in various MPA related activities specially watching over the MPA when they are out fishing.

The element where most significant change is realized is interpersonal communication. The fishers became more expressive about the importance of not fishing inside the MPA core zone and the importance of respecting the markers of the MPA core zone. The Pride Campaign Launching events, both municipal-wide and at the focal barangay, are the triggering activity for the fishers to talk more about the MPA. This was followed by IEC activities in almost all of the coastal barangays. The pride campaign ambassadors, Mikoy the Lobster, Digong the Dugong and Coco the Green Grouper represented the corals, seagrass and mangroves ecosystems that the community is protecting (Figure 3).

The increases in fishers’ knowledge, attitude and interpersonal communication have led to maintaining the behaviors of fishers to use the right gears at the right place. Results of the MEAT showed an increase in the total scores from 38 in 2012 to 60 in 2014 thus, the MPA attained MEAT Level 2 status from pre-level in 2012. Moreover, there are significant increases in 5 of the 9 management focus of the MEAT. The significant increases verified are in the Management Body (from 18.2% to 100%), IEC (from 28.6% to 37.1%), Enforcement (from 50% to 85%), Monitoring and Evaluation (from 18.8% to 37.5%) and Site Development (from 50% to 100%). The MEAT focus on Management Body had the highest increase at 81.8%. This increase may be attributed to the identification, formation

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<tbody>
<tr>
<td>What are the long-term effects on Threat Reduction (TR) and Conservation Result (CR) Objectives?</td>
<td>What evidence do we have that there is increase in coral health and fish density in the MPA?</td>
<td>Quantitative: Biophysical assessment</td>
<td>TR-monthly up to 5 years; CR-pre/post up to 5 years</td>
<td>• Impact assessment on CR</td>
</tr>
</tbody>
</table>
Figure 3. Roxas Pride Campaign Mascots (a) as shown from left to right: *Digong* the Dugong, *Mikoy* the Lobster and *Coco* the Green Grouper; (b) during the Caramay MPA Guardhouse and Patrol Boat Launching

and clarification of the functions and roles of the management body supported by an executive order. Four of the 9 MEAT management focus remained the same. These include Management Plan (66.7%), Legal Instrument (100%), Financing (38.3%) and Community Participation (100%).

While the Caramay MPA scored 100% in Level 2 evaluation using the MEAT, this was hindered by the five-year continued enforcement requirement which fell short to achieving a Level 3 status. This should be worked out in the next five years considering the following: participatory monitoring, sustainable financing, socio-economic, and data management.

As for the biophysical results of the study, a significant increase in coral cover (from 20.6% to 29.9%) (Figure 4), fish abundance (from 195 to 370), species richness (from 94 to 136) and fish biomass from 14.7 to 35.3) of the Caramay MPA took place.
Table 2. Site-Based Results for the Theory of Change

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Attitude</th>
<th>Interpersonal Communication</th>
<th>Barrier Removal</th>
<th>Behavior Change</th>
<th>Threat Reduction</th>
<th>Conservation Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>KAP data on top</td>
<td>KAP data on top</td>
<td>KAP data on top</td>
<td>KAP data on top</td>
<td>Non-KAP data on top</td>
<td>Non-KAP data on top</td>
<td>Non-KAP data on top</td>
</tr>
<tr>
<td>12.4pp</td>
<td>4.9pp</td>
<td>38.5pp</td>
<td>Increase in MEAT level from Pre-level to Level 1</td>
<td>Increase in MEAT scores from 36 to 60</td>
<td>Increase in number of ManCom members</td>
<td>Increase in number of actual intrusions in the Caramay MPA</td>
</tr>
<tr>
<td>Target achieved</td>
<td>Target achieved</td>
<td>Target achieved</td>
<td>Target achieved</td>
<td>Target achieved</td>
<td>Target achieved</td>
<td>Target achieved</td>
</tr>
<tr>
<td>-0.1pp</td>
<td>-0.1pp</td>
<td>-0.1pp</td>
<td>-0.1pp</td>
<td>-0.1pp</td>
<td>-0.1pp</td>
<td>-0.1pp</td>
</tr>
<tr>
<td>9.3pp</td>
<td>31.2pp</td>
<td>20.8pp</td>
<td>Increase in coral cover of the Caramay MPA</td>
<td>Decrease in the number of sightings in the Caramay MPA core zone</td>
<td>Decrease in the number of reports in any activities in the Caramay MPA recorded through personal communication</td>
<td>Increase in fish biomass of the Caramay MPA</td>
</tr>
</tbody>
</table>
Based from KAP survey, the fishers in Roxas are already at the Maintenance Stage (Figure 5). Fishers already know where the buffer and core zones of the MPA are and that they are not allowed to fish inside the core zone. They also know the allowed fishing gears to use when fishing at the buffer zone of the MPA.

**Figure 4.** Hard corals seen in Caramay MPA core zone. *(Photo courtesy of MERF 2014)*

**Figure 5.** Behavior Change Continuum Illustration

- Pre-Contemplation
- Contemplation
- Preparation
- Validation
- Action
- Maintenance

Baseline 98.6%

Post-campaign 97.1%
4. CONCLUSION AND POLICY IMPLICATIONS

After the two-year implementation of the Roxas Pride Campaign, the PCSD-RARE-LGU campaign was able to shape the behavior of fishers particularly in the Action/Maintenance stage as the initiative significantly increased the fishers’ knowledge about the allowed fishing gears in the Caramay MPA buffer zone. This also inspired them to follow the rules and regulations of the MPA. Moreover, the campaign activities increased interaction between the fishers and their peers, relatives and families about fishing in the MPAs. This may have contributed towards achieving the targeted conservation results indicated by increased fish biomass and live coral cover.

The initiatives in the Caramay MPA can be replicated municipal-wide through the network of MPAs that will be formalized and be known as CLARX or the Coastal Law Alliance in Roxas. Replication will be done through conducting assistance in coaching on how to manage the MPAs, demarcate areas of each MPA, install signage for each MPA as well as conduct IEC regarding the benefits of MPAs and the rules and regulations for every MPA. This could be done through collaborative efforts with the local government unit of Roxas. Moreover, replication in other municipalities is also possible through partnership with the local government units and other NGOs working in particular municipalities. To further the advocacy for conservation and sustainable management of resources, the Strategic Environmental Plan (SEP) and Environmentally Critical Areas Network (ECAN) principles in particular must be incorporated in these campaigns to ensure that the communities become more aware and change their attitudes and practices towards sustainable development.

REFERENCES


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