

Finding Common Ground: Regional Collaboration for Marine Resource Management in the
Coral Triangle Initiative

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Abstract

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The Coral Triangle is an area with high marine biodiversity that encompasses four Asian (Indonesia, Malaysia, Philippines, and Timor Leste) and two Melanesian (Solomon Islands and Papua New Guinea) countries. The Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI) is a partnership between these six countries to strengthen marine and coastal management in the Coral Triangle. In 2009, the countries adopted a Regional Plan of Action to work towards this goal. Regional collaboration on marine conservation provides an opportunity for countries to jointly address issues that are shared among nations and collaborative processes designed to engage diverse stakeholders have the potential to improve marine resource management. Through participation in the CTI's regional meetings, working groups and learning exchanges, representatives from participating countries along with transnational NGO partners had several opportunities to engage with each other. This study uses a combination of qualitative interviews and quantitative surveys with representatives from six countries and non-governmental organization involved in the CTI's regional activities to explore their perspectives on collaborative activities at the regional level. Results indicate that participants engaged in regional CTI activities valued the CTI's approach to marine conservation due to its potential to address shared concerns and raise awareness about the Coral Triangle region. In addition, this study finds that CTI activities created opportunities for social learning, which facilitated the

development of collaborative relationships and the identification of common goals for marine resource management.

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Background

The Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security

The Coral Triangle region is located in Southeast Asia and the Western Pacific and is an area with high marine biodiversity, containing approximately 75% of known coral species and 30% of the coral reefs in the world (Burke et al. 2012). The Coral Triangle includes the exclusive economic zones (EEZs) of six countries (the CT6): Indonesia, Malaysia, Papua New Guinea, the Philippines and the Solomon Islands. Over 360 million people live in the CT6 countries and the Coral Triangle directly supports the lives of approximately 120 million people (CTI-CFF 2009). The Coral Triangle's natural resources are currently threatened by a variety of stressors including climate change, over-fishing, coastal development and land-based pollution sources (Burke et al. 2012; CTI-CFF 2009).

With the onset such threats, a significant collaborative effort emerged in 2007 with the goal of addressing these issues. The CT6 countries agreed to form a multilateral partnership, known as the Coral Triangle Initiative (CTI) on Coral Reefs, Fisheries, and Food Security to manage the area's marine and coastal ecosystems (CTI-CFF 2009). The six countries adopted the CTI Regional Plan of Action (RPOA) in 2009, which lays out the following five major goals (CTI-CFF 2009, pg. 3):

Goal 1: Priority Seascapes Designated and Effectively Managed;

Goal 2: Ecosystem Approach to Management of Fisheries (EAFM) and Other Marine Resources Fully Applied;

Goal 3: Marine Protected Areas (MPAs) Established and Effectively Managed;

Goal 4: Climate Change Adaptation Measures Achieved;

Goal 5: Threatened Species Status Improving.

The scope of the RPOA includes waters within the national jurisdictions of the CT6 countries (CTI-CFF 2009). This area includes over 86,500 sq km of coral reefs (Burke et al. 2012). The RPOA seeks to “serve as a rallying point for collective and parallel action at regional, national, and sub-national levels” (CTI-CFF 2009). Regional goals of the RPOA include strengthening regional collaboration and coordination among the six country governments, NGOs and international donors (CTI-CFF 2009). At the national level, each of the CT6 countries developed a National Plan of Action (NPOA) that translates RPOA goals to country-specific contexts.

The United States Agency for International Development (USAID) provided financial and technical assistance to the CTI through the US CTI Support Program (USCTI). The US CTI is comprised of an international NGO consortium, a Program Integrator (PI) and the U.S. National Oceanic and Atmospheric Administration’s (NOAA) CTI technical support program. The Coral Triangle Support Partnership (CTSP) is the consortium of three international NGOs, the World Wildlife Fund (WWF), The Nature Conservancy (TNC) and Conservation International (CI) (USAID 2008). The US CTI’s implementation partners included the Program Integrator (PI) and the U.S. National Oceanic and Atmospheric Administration (NOAA). NOAA provided technical support and capacity building assistance and the PI’s support included assistance for regional CTI efforts (Baker et al. 2013).

Regional activities in the CTI included meetings of key leaders at the CTI Senior Officials Meetings (SOMs), CTI Technical Working Groups (TWGs) and topical learning exchanges through CTI Regional Exchange Workshops (REXs). REXs and TWGs were attended by representatives from the CT6 countries as well as people from the CTI’s regional partners including NOAA, the PI and transnational NGO representatives (Tetra Tech ARD, Inc.

2013; Tetra Tech ARD, Inc. 2012; Tetra Tech ARD, Inc. 2011). REXs addressed issues included MPAs, EAFM and climate change adaptation. Activities at REXs included sharing progress and technical knowledge on the CTI's thematic areas as well as developing regional priorities, future goals and common frameworks for CTI priorities (Tetra Tech ARD, Inc. 2013; Tetra Tech ARD, Inc. 2012; Tetra Tech ARD, Inc. 2011).

CTI regional technical working groups focused on thematic issues such as sustainable finance, monitoring and evaluation, climate change adaptation, fisheries management and marine protected areas. Activities at TWGs included the development, coordination and implementation of regional frameworks that addressed the CTI's priority actions (e.g., EAFM, MPAs and climate adaptation) (CTI MPA TWG 2012; CTI-CFF 2012; Tetra Tech ARD, Inc. 2011).

Regional Collaboration for Marine Governance

Regional approaches to marine and coastal governance have the potential to integrate both the nature of marine ecosystems with political and legal tools that are appropriate specific regions (Rochette et al. 2014). One example of a regional approach to marine conservation is the Large Marine Ecosystem (LME) approach (Mahon et al. 2010; Mahon et al. 2009; Juda & Hennessey 2001). International donors such as the Global Environment Facility (GEF) have supported the LME approach to marine management (Mahon et al. 2009), which takes into account the geographic scale of marine and coastal ecosystems that is "appropriate to major marine biophysical processes" (Mahon et al. 2010; Mahon et al. 2009). In addition, several examples of regional environmental cooperation exist for the management of pollution across national borders including programs in the Mediterranean and Baltic seas (Haas 1990; VanDeever 2011).

Cooperative regional efforts for marine governance have been implemented in various regions of the world. For example, the Baltic Sea region has several mechanisms for regional cooperation regarding environmental issues (VanDeever 2011; Backer et al. 2010; Kern & Löffelsend 2004; Haas 1990). Cross-border environmental cooperation in the Baltic Sea has incorporated governmental, non-governmental, business and sub-national actors (Kern & Löffelsend 2004; VanDeever 2011). According to Koontz et al. (2004, p. 19), “collaborative environmental management implies that government shares decision-making power and authority with other stakeholders”. Strengthening cooperation and coordination can improve the efficiency of regional initiatives for the governance of areas beyond national jurisdiction (Rochette et al. 2014). In addition, cooperative management can contribute to sustainability of marine biodiversity (Ardon et al. 2014).

Objectives

The first part of this study seeks to understand the degree to which national and regional CTI participants valued a regional collaborative approach to marine conservation. In addition, it explores why key government and NGO actors in the CTI valued collaboration towards a regional framework for marine and coastal management in the Coral Triangle. Collaborative governance is ideal in cases in which continued cooperation is necessary (Ansell & Gash 2008) and collaboration can serve as a means for “airing diverse viewpoints and generating information that will address increasingly complex environment problems” (Koontz et al. 2004 p.19). The Coral Triangle region faces a multitude of threats to its natural resources (Burke et al. 2012) and the CTI RPOA states that addressing the CTI’s regional goals of the CTI will require “multilateral

action” from the governments in conjunction with “coordinated action” from partners including NGOs (CTI-CFF 2009).

Secondly, this research examines how regional actors engage in social learning processes, which has been demonstrated to play an important role in collaborative natural resource management (Cundill 2010; Berkes 2009; Bouwen & Taillieu 2004; Keen et al. 2005; Schusler et al. 2003). This analysis identifies elements of social learning processes that occurred in the CTI’s regional activities. Specifically, this assessment documents how regional CTI activities contributed to the establishment of collaborative relationships between individuals of different countries and to the development of common goals among CTI participants.

Finally, this study examines informants’ beliefs regarding the involvement of different countries in these regional collaborative activities. Collaborative processes and social learning in natural resource management create opportunities for sharing diverse perspectives (Armitage et al. 2008; Bouwen & Taillieu 2004; Koontz et al. 2004; Schusler et al. 2003). This research explores the degree to which national informants involved in the CTI felt that their country’s different policy contexts were reflected in the CTI’s regional goals.

Materials and Methods

This research was part of a larger study conducted in 2013 to understand lessons learned from the CTI and the five-year US CTI Support Program. The study, entitled the Learning Project, was funded by USAID and NOAA and led by the University of Washington in partnership with WWF. The Learning Project examined outcomes, successes, challenges and lessons learned through document analysis and surveys and interviews with partners involved with the CTI (Christie et al. 2014). This research examines data collected through the Learning

Project to understand national and regional informants' perspectives on regional collaboration in the CTI.

Social surveys and key informant interviews were conducted in the six Coral Triangle countries as well as with NGO informants from countries outside the Coral Triangle. Informants for regional and national surveys and interviews were selected using purposive sampling. Informants were identified based on their involvement in CTI by key leadership officials from the US CTI and CTSP. Informants included staff of government ministries (e.g. fisheries and environment divisions) and NGOs as well as senior leaders from the US CTI, CTSP and CTI. Respondents were chosen from different sectors and countries to ensure representation from diverse perspectives from actors involved in the CTI. National and regional surveys were administered face-to-face. Social survey data were coded in a database and analyzed using SPSS version 21.

Three types of social surveys were administered at the national and regional levels, including one survey to regional informants and two types of surveys to national informants. The first type of national survey was administered to informants from each of the six Coral Triangle countries that were actively engaged in CTI activities, working groups, and CTI policy-making. Two survey questions were analyzed for this particular study. Respondents to this first type of national survey were asked to what degree they agreed or disagreed that the CTI had accommodated a range of national policy contexts using a 5-point Likert scale. A second national survey was administered to other national informants who were aware of the CTI, but were not familiar with the CTI's inner workings and policy-making processes. One variable (importance of being part of a regional program) was measured by asking respondents to both national surveys to rank their response using a 10-point Likert scale. Results were analyzed

using non-parametric statistical tests, which are appropriate for ordinal data with a non-normal distribution (Siegel 1988) and results were considered significant at $p < 0.05$. Responses were disaggregated by country and the Kruskal-Wallis test was used to determine whether there was a significant difference in responses for value of regionalism and accommodation of national policy contexts among the six countries. In addition, the Mann-Whitney U test was used to determine if there was a significant difference among responses on the value of regionalism among national and regional informants.

Table 1

Survey questions administered to national informants.

1. On a scale of 1 to 10, how important has being a part of a regional program been to your country? (1=not at all important; 10 = highly important)
2. The CTI has accommodated a range of national policy contexts
 - Strongly Disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly Agree
 - Don't know

Interviews were conducted in English or CT6 languages with regional CTI leaders as well as informants from each of the CT6 countries. Interview guides were used to elucidate information on common themes across informants from all CT6 countries, but were also adapted based on individual informants' specific involvement in the CTI. Topics addressed in the key informant interviews included informants' participation in regional processes, national-level CTI activities and integration across sectors. Qualitative analysis in this study reflects the opinions of key informants involved in CTI regional processes. Results of this study draw from 17 informants, who were senior government officials from five CT6 countries involved in the CTI's regional activities as well as national and regional informants from international conservation

NGOs. This analysis examines ways in which these key informants valued regionalism in the CTI and how their engagement in collaborative processes created opportunities for social learning.

Semi-structured interviews were transcribed, translated (if necessary) and coded using Atlas.ti 7 qualitative analysis software. Analysis of qualitative was conducted using a grounded theory approach, which enables the researcher to identify concepts from the data and determine relationships between concepts (Strauss & Corbin 1990). First, interviews were coded using a combination of predetermined code categories and categories that emerged from the data. Code categories related to regional collaboration and the costs and benefits of regionalism in the CTI were then analyzed in depth using a grounded theory approach to identify themes that emerged from the data. Data was sub-coded into categories that reflected emergent themes (e.g., regional cooperation). Analytical memos were written to elucidate relationships between themes that emerged (Miles & Huberman 1994; Strauss & Corbin 1990). Qualitative methods can give “intricate details of phenomena that are difficult to convey with quantitative methods” (Strauss & Corbin 1990). Qualitative analysis of interview data in this study seeks to complement quantitative, social survey data by determining a more in-depth understand of regionalism in the CTI.

Results and Discussion

Value of Regional Cooperation in the Coral Triangle

When informants were asked whether they felt that being part of a regional program was important on a 10-point Likert scale, most national and regional informants stated that it was quite important. The median level of importance for all informants was 8.0 on a 10-point scale with 10 signifying highly important (n = 169). There was no statistical difference between

regional and national informants ($U = 1577.5, p > 0.05$) or among respondents from different countries ($H = 6.590, p > 0.05$). Individuals placed value on regional collaboration for a variety of reasons. Qualitative analysis of interviews with participants involved in regional CTI activities indicated a variety of factors that influenced respondents' desire to collaborate on a regional approach to marine conservation in the Coral Triangle. These factors included the existence of shared resource and common challenges across country borders, pride in the region, and a desire to build awareness about the Coral Triangle.

Common resources and common issues

Several participants actively involved in regional CTI activities participants cited the existence of shared common resources and common challenges across the CT6 countries as one important reason to collaborate on a regional program for marine conservation. Identifying common issues is an important step in the process of defining issues and setting problems for collaborative natural resource management efforts (Bouwen & Taillieu 2004). One senior US NGO staff person noted that the six countries “share this common huge marine treasure trove of wealth and ... there's every reason for them to operate as a block”. In addition, an NGO informant from Malaysia noted the importance of having a common objective and linking countries together. He stated that the existence of common challenges among the countries necessitated collaboration and noted that sharing knowledge was an important aspect of collaboration:

“I think there's no way that every individual country should be working on their own. If we have this common view, common objective to have this place protected and there is a target for that that is the only way that we can move forward because the problem that we face is common, actually. The fish or the habitats that we share are common. It doesn't have boundary. So that is the way I think that it should be done -- the common view,

common direction and then working together and from then on we also have this sharing of knowledge, sharing of lessons learned and many other things. That is one thing.”

Similarly, a regional NGO informant also emphasized the need for regional collaboration in the Coral Triangle and said:

“It’s not something that, it’s not something that you can deal with at a site level. You need to get national and even regional ... Somehow regionally these countries have to get together, and say ... we’re all going to have the same policy ... we’re going to be in this together. I think that’s the added value. [The threats] touch down at sites but very few of them are really really specific to sites ... we can’t be dealing with [the threats] site by site or even country by country, it’s got to be a regional approach”

The informant believed that because threats to coastal resources in the Coral Triangle are shared across countries, they must be addressed collaboratively at a regional scale.

A Senior Indonesian Government Official observed country representatives communicating in a “common language” at regional CTI meetings despite differences between their nations. He stated that common goals for issues like climate change adaptation created “chemistry” between people of different nations:

“Taking [the] example of what I experienced in Timor Leste when we [had] the [Climate Change Adaptation Regional Exchange Workshop], those cultural differences, those government administrative system differences, they don't block the way [people] interact because they talk in the common language in terms of [climate change adaptation] for example. The problems may be different, you know like in sea level rise, sea temperature rise, but they all feel that this is all because of the climate change. So I don't think it's forced marriage because even if it was forced marriage, but there's also chemistry that is going on among them. There's chemistry. The chemistry works because of the common language about the issues that they face together.”

The variety of environmental issues faced in Southeast Asia are often more effectively addressed through regional cooperation (Elliott 2012) and the CTI RPOA asserts the importance of coordinated and multilateral action at the regional scale (CTI-CFF 2009). Countries negotiating environmental issues must create a shared understanding of both problems and solutions to environmental issues when working towards forming an agreement (Mitchell 2009, p. 125).

Identifying shared concerns and goals and finding a common definition of problems are important elements of collaborative processes (Ansell & Gash 2007; Tett et al. 2003; Gray 1989, p. 58). Some informants believed that the CTI's regional approach was particularly valuable because it enabled shared issues to be addressed and defined in a collaborative environment. They noted that the countries in the Coral Triangle share natural resources and thus face common problems regarding these resources. As a result, informants expressed a need for regional collaboration to address the issues facing these shared common resources.

Pride and Awareness-Building

A few informants discussed a sense of pride in the Coral Triangle region as an important driving force for regional collaboration and participation in the CTI. For example, one government official from the Solomon Islands who was actively engaged in the CTI's regional activities discussed how this sense of pride contributed to the country's desire to engage with the CTI.

“the Solomons had to really work hard to understand [at first] ... what the Initiative is meant to become ... it took some efforts from us to convince ourselves that this was a worthy ... framework to be part of. But I think [the] thing that that kept us committed to the framework is the pride in which the Pacific; we as a country realized that this is ... valuable ... [the] fact that we a part of this rich and diverse spot of the world. So that was one thing that kept us together - we didn't worry so much about the benefits, though we worried about the benefits, that was at the back of our minds really. I think the, for, for the pride, was the value of being part of something big, bigger than the country itself. I think that was what ... sustained our commitment and ... I think there's a lot of pride behind being part of this area.”

For this Solomon Islands representative, a sense of pride in the region and its biodiversity contributed to the desire to engage with the CTI's regional framework. Having commitment from stakeholders to collaborate is an important step in the collaborative process (Gray 1989, p. 59). A sense of pride in the region and its biodiversity contributed to the informants' desire to

engage with the CTI and helped to drive commitment towards the CTI's regional framework. Pride in an area may lead to support for conservation efforts in that area. In a study regarding attitudes towards protected areas in Italy, Carrus et al. (2005) found that pride in regions within Italy contributed to support for parks. In addition, pride in one's area is an indicator for individuals' sense of local identity, which has been found to increase individuals' likelihood to cooperate on conservation issues (Bonaiuto et al. 2008).

Pride in the Coral Triangle was also cited as a reason to raise awareness about the Coral Triangle region. One regional NGO informant believed that the iconic nature of the CT region generated feelings of pride about the region and also results in awareness-building:

“I think that ... a lot of people know what [the Amazon] is even if they never go there or will never go there in their whole life ... it has this, it's an icon and it means wild, and exotic, adventures, and nature ... And I think that, you know, there's a lot of people that would probably feel something when the Coral Triangle is more of an icon. Either ... they live in it or they can feel proud about it, or if they feel attracted to it. And it's different for different people.”

The Amazon has sometimes been considered an iconic example of environmental change in a highly biodiverse region (Betts et al. 2008). Some informants compared the Coral Triangle to the Amazon due to the Coral Triangle's high biodiversity and iconic nature.

The need to raise awareness about the Coral Triangle was also cited as important reason to engage in a regional marine conservation program. Primarily NGO informants engaged in regional CTI activities shared this perspective. For example, one regional NGO informant said, “raising awareness is the thing that's bigger than the individuals.” In addition, two NGO informants from Malaysia discussed the emergent impact of the CTI as a region and the importance of branding the region in order to build awareness about it. “You cannot discount the power of the Coral Triangle brand ... Yeah, the branding in the end is important ... You need the public to be aware.” However, when asked if the CTI had created a niche for itself compared to

other cooperative environmental initiatives, he said, “I think it's still evolving”. Similarly, a second NGO informant from Malaysia said, “It takes years. It’s not so easy”.

NGOs contribute to the “the active mobilization of public support for international agreements” which can increase global collaboration on environmental governance issues (Gemmill & Bamidele-Izu 2002, p. 2). Continued efforts by NGOs and leader states to generate concern and urgency are “central to getting environmental problems on the international agenda” (Mitchell 2009, p. 124). NGOs involved in international environmental issues may engage in public outreach and information sharing (Gemmill & Bamidele-Izu 2002). In the case of the CTI, NGOs were involved in the processes of introducing ideas and mobilizing funds for the CTI (Rosen & Olsson 2012). NGOs continued to engage with national governments at the regional level in the form of technical support and capacity building for CTI activities.

Social learning and regional collaboration in the CTI

Social Learning in CTI Regional Processes

Through participation in regional collaborative processes, CTI participants formed new relationships and learned from each other. For example, one NGO informant from Indonesia stated that regional collaboration “added value” to MPA work so that the countries could “share lessons” with each other. Some informants discussed how the formation of relationships contributed to learning. For example, one government official from the Philippines noted that the formation of new relationships was beneficial in that it created opportunities to learn and ask questions more informally. She said, “You no longer need papers because these are your friends. If you have questions, you just email them, or call them. It helps.”

Collaborative processes “demand that that communities engage in learning partnerships” (Keen et al. 2005). Schusler et al. (2003) define social learning as “learning that occurs when

people engage one another, sharing diverse perspectives and experiences to develop a common framework of understanding and basis for joint action”. Through deliberation among multiple parties, social learning can lead participants to form collaborative relationships and identify common goals, which are important for co-management of natural resources (Schusler et al. 2003). Through regional collaborative events including regional exchange workshops and technical working groups, multiple actors from various NGOs and government NGOs discussed resource management issues addressed by the CTI. Participants in collaborative environmental management processes often learn experientially by jointly exploring different management options (Armitage et al. 2008). Participants in regional CTI activities engaged in both relational activities (e.g., mobilizing actors to collaborate, discussing diverse interests, negotiating roles and aligning commitments) and problem-solving activities (e.g., sharing perspectives, identifying common problems, selecting strategies and planning actions) (Bouwen & Taillieu 2004).

Regional cooperation in the CTI contributed to the establishment of new personal relationships that contributed to marine resource management in the Coral Triangle. Social learning has the potential to create and transform relationships, which may then lead to further collaboration on natural resource management (Armitage et al. 2008; Keen et al. 2005; Schusler et al. 2003). When asked about regional successes of the CTI, one regional informant noted that CTI activities have resulted in the formation of a community with important relationships: “All the country representatives at multiple levels they have really robust relationships that are quite significant and important. So I think that’s a success.” Similarly, an Indonesian government official stated that relationship building was “the most important achievement” of the CTI because it brings diverse parties together. One USCTI representative observed that personal relationships contributed to establishing commitment towards common goals. The informant

stated that certain country representatives are “personally committed” to the CTI and that they have relationships that contributed to developing “mutual commitment” among different countries, which is an important aspect of collaborative processes (Gray 1989, p. 59).

Informal interactions are important to the collaborative process (Cundill 2010; Innes & Booher 1999) and participants in collaborative natural resource management efforts may engage in informal interactions that enable them to learn about each other (Schusler et al. 2003). A senior Indonesian government official talked about the importance of opportunities to socialize and noted that these social activities enabled people to interact outside of formal events.

“There are so many opportunities beyond those formal events when they can, you know, socialize, and they can mingle, they can. And capitalizing on [that] connectedness, they can share or deliver message that are related with the CTI issues of course, the substance, in that context of social. So if you join the dinner right, formal dinner, you can see how people are, they are blended into one, they sing together, and they, they dance together, So I see that as a sign that, yes cultural differences matter, but as humans, especially coming from this part of the world, they have this passion, actually, to interact.”

However, sometimes the regional meetings seemed too formal to participants. For example, an Indonesian NGO informant noted that some regional meetings have become increasingly formal over the five years and felt that it was important to maintain a certain level of engagement, energy and passion.

“Well I think what could’ve been better, and I think what we lost a bit in the past 5 years is the informality of things. So the process is very formalized now, it’s almost stifling I would say ... I’m a bit concerned and a bit disappointed that it has become so formal even [at] this meeting I find like, ‘wow where is the engagement?’, sort of this peer to peer thing rather than this very official approach.”

Effective consensus building processes in collaborative planning involves learning and informal interactions among participants and is motivated by shared goals (Innes & Booher 1999). One informant from the Indonesian government cited the MPA working group as an example where regional collaboration led to consensus-building among countries. He stated that

people felt “comfortable and relaxed” and that discussions were “very good” and “very dynamic” when people discussed regional tools. In addition, he noted that facilitating effective communication is an “important ingredient” for reaching consensus.

“Yeah I witnessed meeting for the working group for the MPA and then we talk about how we need the tools for the regional voice that can be applied to the regional, there are ... very good and very dynamic discussion [among the] CT6 countries, and then everybody just you know is feeling comfortable and relaxed, it’s not like against ideas about, I propose this idea, it’s better than we apply to my country or something, no no, it’s more like to get more consensus among the countries, I think the key word here on how to get to reach the consensus by the way and the good ways to facilitate and to communicate with each other, that will be important ingredient I guess”

One regional informant (noted that while much of the CTI’s regional work has seen positive outcomes for MPAs and fisheries management through the development regional frameworks, the activities laid out by regional frameworks are still in progress:

“I’d like to think that there’s value, value added in the work that’s been done on EAFM on a regional level, the sort of framework for EAFM, but I think it’s too early to tell, so I think it’s an achievement to develop a regional framework but whether the countries are truly committed doing something to implement it, I think we need to wait and see.”

Collaborative activities in the CTI contributed to the development of regional frameworks, such as the Coral Triangle Marine Protected Area System (CTMPAS). The CTMPAS framework creates a region-wide system of MPAs in the Coral Triangle and was developed after two years of collaborative efforts by the CTI MPA Technical Working Group (Walton et al. 2014).

Through engagement in regional processes, some CTI participants experienced a sense of belonging and community. For example, one Indonesian NGO informant described how attending CTI regional meetings connected her to other individuals. She said:

“[The Regional Plan of Action] is a galvanizing framework in my opinion and major success I find that we did over the years build up a community of actors. So there is a sense of purpose, a sense of belonging to this initiative I find every time I engage in these regional workshops and also the technical working groups. People feel connected, we’re

all trying to address the same challenges, I find that there is a community of practice happening in this regard.”

A community of practice creates common ground as well as a community of individuals “who foster interactions and relationships based on mutual respect and trust” and may contribute to the development shared tools, frameworks and ideas (Mittendorff et al. 2006; Wenger 1998).

Engaging diverse partners in regional marine governance

Collaborative natural resource management engages diverse perspectives and brings different stakeholders together to tackle environmental issues (Armitage et al. 2008; Koontz et al. 2004, p. 21). The CTI brought together representatives from six countries from Asia and the Pacific to address marine and coastal management issues. Collaborative environmental management can provide opportunities for actors with diverse goals to communicate their priorities and targets with each other (Armitage et al. 2008). One Malaysian NGO informant perceived collaboration between diverse actors involved with the CTI to be a unique attribute of the CTI:

“I think one of the things that really amazed me was sitting [at] some of those meetings with people from PNG, Solomons, Timor Leste, Indonesia, Malaysia, Australia and everybody else, talking about the Coral Triangle, I always come back to this is really a cool place. It is so important and having these people come together -- they look different, they sound different, they come from completely different governance backgrounds and socio-economic backgrounds. I would look around the room sometimes and just go, this is really cool.”

National informants who were actively engaged in regional CTI activities were asked whether they felt that the CTI had accommodated a range of national policy contexts using a 5-point scaled question (Figure 1). Most informants stated that they 57.1% stated that they agreed (57.1%) or strongly agreed (28.6%) and none stated that they strongly disagreed. The median

level of importance for all informants was 4 on a 5-point scale with 5 signifying strong agreement. There was no statistical difference among respondents from different countries ($H = 6.258, p > 0.05, n = 35$).

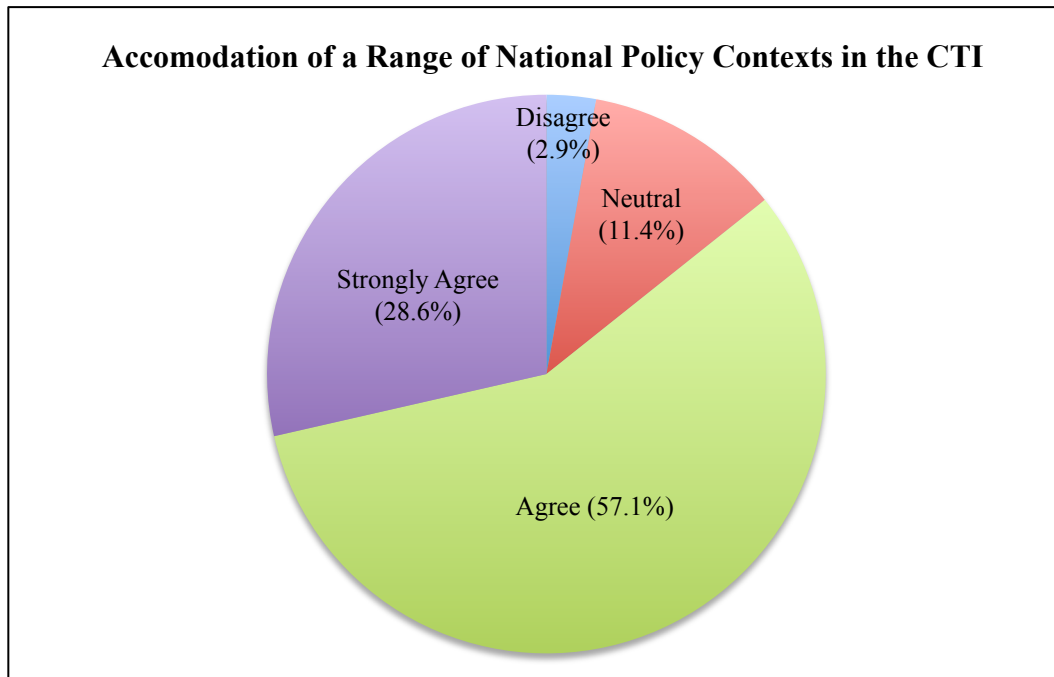


Figure 1. Actively engaged national informants’ beliefs about whether the CTI accommodated a range of national policy contexts (n=35).

While some informants engaged in regional CTI processes felt that the CTI contributed to collaborative frameworks that effectively linked diverse country contexts to regional frameworks, others believed this issue needed improvement. When asked whether there was progress towards overcoming divisions between Asian and Pacific countries, one government informant from the Solomon Islands felt that there had been a growing sense of mutual respect developed throughout the course of the CTI.

“Solomon Islands government official: I think one of the values that we've achieved ... is that mutual respect ... it [had] a been a challenge in the early days but then, I think ... there [are] now no boundaries and there [are] no divisions ... The framework was built on mutual respect, on - and the recognition of diverse, of cultural differences ...”

Interviewer: Do you think there were some of those divisions at the beginning?

Solomon Islands government official: Yeah, yeah because it was the first time that such a group came together.”

The same informant also discussed the Solomon Islands’ level of engagement in the development of the RPOA:

“I think the Solomon Islands at the regional level has actively participated in developing the Regional Plan of Action, we’ve gone to all the ... coordination meetings in preparation for [the] Regional Plan of Action. So [the] Solomon Islands has been exposed to that at the regional level. So, [the] Solomon Islands I think performed ... its roles in ... regional discussions and setting that regional baseline in a way ... I think the Solomon Islands has made a role in ... putting into context at the regional level the national issues and also ... it was able to negotiate a really challenging one ... to put the common issues up with countries like the [Asian countries]. So it played a role in putting the Pacific context into the framework. But that was one, I think we as a country participated in. Well, personally, I attended most of the regional, I attended most of the regional forums”

While this informant felt that the Solomon Islands contributed to getting issues affecting the Pacific on the table, participants did not always find that regional CTI processes accurately reflected the needs and interests of their respective countries. One government informant from Papua New Guinea discussed barriers to incorporating the country’s concerns into regional CTI activities and felt that certain countries had less influence into the CTI’s regional program:

“So if you observe in any ... one of these [Regional exchange workshops] ... since the CTI [was] initiated [in] 2009 ..., for PNG, Timor Leste and Solomon islands there is never any influence into the regional program. The influence has been between Philippines and Indonesia and Malaysia. So we’re just like...we’re going to a regional meeting, sitting down here, but only the 3 countries are talking and we’re sitting down just looking at them ... That was basically my observation for the last 4 years; that’s why I drew that distinction between the 6 countries.”

Collaborative natural resource management often engages diverse parties in communication regarding shared problems (Bouwen & Taillieu 2004; Schusler et al. 2003). The CTI engaged diverse stakeholders from different contexts including representatives from six national governments and NGO partners. Collaboration and learning in resource management creates opportunities for actors to become aware of different viewpoints and share diverse

sources of knowledge in the process of creating a new understanding (Bouwen & Taillieu 2004; Koontz et al. 2005, p. 159). Gray (1989, p. 250) notes that “parties will be understandably reluctant to collaborate if they are at a disadvantage to adequately represent their interest” in the collaborative process. In some cases, the CTI’s regional collaborative activities enabled countries to actively contribute to regional frameworks, but in other cases representatives felt they did not have enough of a voice in regional processes.

Conclusions

The Coral Triangle Initiative provided a regional platform for six countries from Southeast Asia and the Pacific Islands to collaborate on marine and coastal management issues. Actors engaged in regional CTI processes included staff of NGOs (both from the CT6 countries and from outside the region) as well as government representatives from government agencies. This study finds that participants in the CTI valued regionalism for marine conservation for a variety of reasons. These included pride in the Coral Triangle, desire to collaborate on common problems and a need to build awareness about the Coral Triangle and its natural resources.

Through participation in regional processes, CTI partners engaged in social learning, which contributed to the formation of new collaborative relationships, the identification of shared issues and the development of common frameworks. Social learning in collaborative processes can enable shifts in behavior and values, which creates opportunities for innovation (Cundill 2010). Regional collaborative activities in the CTI including Regional Exchange Workshops and Technical Working Group meetings created opportunities for social learning, which in turn may lead to increased collaboration in natural resource management (Schusler et al. 2003). It is recommended that the CTI continue to host regional collaborative activities such

as Regional Exchange Workshops in order to facilitate further collaboration as the CTI implements the adopted regional frameworks.

Collaboration and learning in resource management engages diverse perspectives (Armitage et al. 2008; Koontz et al. 2004; Bouwen & Taillieu 2004; Schusler et al. 2003). Through regional collaboration and learning, CTI participants identified shared goals and common interests. While the CTI did create opportunities for countries to actively contribute to regional frameworks, some representatives expressed a lack of influence in regional activities. Carefully managing collaborative processes increases the likelihood of successful collaboration (Gray 1989, p. 264-267). As the CTI RPOA advocates multilateral and coordinated action at the regional level (CTI-CFF 2009), it is recommended that further regional collaborative efforts be executed such that they encourage different viewpoints to be effectively integrated into future policies and actions.

Further research is necessary to better understand potential costs and challenges associated with regional collaboration in the CTI. Overall, the CTI provided a unique opportunity to explore collaborative natural resource management at a regional scale and consider the value of such programs for aligning diverse actors working together towards a common goal. As the CTI is currently in the processes of ratifying its Regional Secretariat, it will be interesting to observe how regional collaboration and learning continues under this framework.

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