

Member's Report

ICRI GM 29 - Blue Ventures

INTERNATIONAL CORAL REEF INITIATIVE (ICRI) 29th General Meeting 20-23 October 2014 – Okinawa, Japan

Member's report on activities related to ICRI

Reporting period October 2013 - September 2014

NOTE: TO CHECK A BOX, DOUBLE CLICK ON IT AND TICK 'CHECKED' UNDER 'DEFAULT VALUE' IN THE POP UP WINDOW

1. **Updates on your activities.** The following table is a summary of ICRI's *Framework for Action* (FFA) and its four cornerstones. (The full text of the FFA is available in English, French, and Spanish at http://www.icriforum.org/icri-documents/icri-key-documents/framework-action-2013).

Objecti		Manage coral reefs and related ecosystems using an ecosystem approach, recognizing place based activity; connectivity within and among ecological, social, economic, and institutional systems; as well as with attention to scale; resilience of ecological and social systems; and long-term provision of ecosystem services.
Integrated Management	General Approach	Integrated management, using a strategic, risk-based, informed approach, provides a framework for effective coral reef and related ecosystem management which supports natural resilience, ecosystem service provision, and enhances the ability to withstand the impacts of climate change and ocean acidification.
	Desired outcome	There is a demonstrable reduction in the threats to coral reefs and related ecosystems through management action.
	Objective To build capacity in all facets of management of coral reefs and related ecosy and support dissemination and application of best practices to achieve the wipossible engagement of all stakeholders in planning and management activities.	
Capacity General Building Approach		Continued collaboration, partnerships, outreach, information sharing and education to ensure the uptake of best practices and encourage behavioural change. This can only be successful if the diversity of cultures, traditions and governance among nations and regions are taken into account.
	Desired outcome	Persons who have influence in the management of coral reef and related ecosystems have the knowledge, tools and capital necessary to apply best practices, adapted to the cultural and socio-economic context.
Objective communities assess and report on the status of and threats to t		To support research and citizen science approaches to enable countries and communities assess and report on the status of and threats to their coral reefs and related ecosystems in a coordinated, comparable and accessible manner.
Science & Monitoring	General Approach	Research and monitoring programs are essential to ensure that management of coral reefs and related ecosystems is based on best available (scientific) information.
	Desired outcome	Knowledge of the status and trends in coral reefs and related ecosystems health is enhanced and used to inform planning and management, improving management outcomes.
		To engage in periodic review of the impact and effectiveness of all elements of management to enable evaluation and refinement of management measures in an adaptive framework.
Periodic Assessment (Review)	General Approach	Periodic assessments of management effectiveness and evaluation of projects and activities to ensure the efficacy of management tools and systems in tackling the range of pressures affecting coral reefs and related ecosystems and protecting the values associated with them.
Desired outcome		Management processes and activities are regularly reviewed and improved using a structured approach, to enhance their ability to effectively reduce pressures and threats.

Using the table on the previous page, as well as the detailed descriptors of approaches and strategies available in the full text of the FFA as a reference, please give us an update on an activity/project/program(s) which has been particularly successful in your country/organization during this reporting period.

Cornerstone(s) implemented through the project	Check all that apply: ☑ Integrated Management ☑ Capacity Building ☑ Science & Monitoring ☐ Periodic Assessment (Review)	
Project Title	Locally Managed Marine Areas (LMMAs)	
Location	Velondriake LMMA (SW Madagascar), Belo sur Mer (western Madagascar) and the Barren Isles (western Madagascar)	
Dates	From 2004 - present	
Main Organizer(s)	Blue Ventures	
Main Stakeholder(s)	Vezo communities of western Madagascar	
Description of Project	Locally managed marine areas (LMMAs) have emerged as an effective solution to the challenges of marine conservation and traditional fisheries management throughout the tropics. In many cases they involve a revival of traditional management practices which have fallen into disuse, and occasionally involve the introduction of more contemporary fisheries management strategies. Regardless of the management measures used, LMMAs are characterised by local fishing communities playing a prominent role in integrated management, capacity building and science & monitoring.	
(Please elaborate on how the project implements the FFA cornerstones)	The Blue Ventures' (BV) LMMA programme focuses on three zones along Madagascar's west coast, which together include more than 70 communities, a combined coastal population of more than 50,000 people, and a total marine area of almost 6,000 square kilometres. In all of these communities, fishers have experienced severe declines in catches over recent decades for all harvested species, especially high-value fisheries such as sea cucumbers and large pelagic and reef fish.	
	BV is training and supporting communities throughout these LMMAs to monitor their natural resources and establish management systems that will enable them to reverse this decline. To ensure the long-term financial sustainability of these LMMAs, we are working to develop market-based incentives for communities to conserve the ecosystems that underpin their livelihoods.	
Outcome (Expected outcome)	Velondriake LMMA: Efforts in 2013-2014 have focused on building the capacity of the Velondriake Association. Members of the central planning committee have been trained in financial management procedures in line with the growing focus on the management of income generated from fisher contributions made to the association during the annual village octopus fishery closures. This is an initial step to transferring accounting responsibilities to the association members for budgeting and financial reporting on the activities of the LMMA.	
	Along with the selection of 80 new Velondriake members, the committee has also identified and established decentralised <i>dina_(local law)</i> enforcement committees in each village, who are responsible for patrolling permanent and temporary reserves and carrying out proper prosecution procedures for dina infractions. The process of	

application for definitive protected status for Velondriake within the Madagascar protected areas system is ongoing, and once obtained, this status will help to ensure protection of the area from industrial fishing boats, petroleum mining and other extractive activities.

Belo sur Mer:

Promoting the local management of marine resources in the Menabe region has been an ongoing work programme since 2007, with BV's operations based in the coastal village of Belo sur Mer. BV continues to support traditional fishing communities to manage their marine resources through the creation of locally managed marine areas, primarily in mangrove forests and channels.

In 2011, two villages established the region's first temporary mangrove reserves. The success of these reserves led other villages requesting support from BV to set up their own managed fishing areas. Within the region six villages now implement mangrove reserve closures which last between three and six months once or twice each year. Fisher associations have now been established to oversee the creation and implementation of the rules governing the reserves, based on Dina. Work in Belo sur Mer will now focus on building the local crab fishery and aquaculture trials as part of Blue Ventures alternative livelihoods efforts.

Barren Isles:

A thorough socio-economic study of the project area was completed in August 2012 providing baseline information on households, migrations and the importance of local and migratory fisheries. An ongoing fisheries monitoring program additionally provides information on catches (species, numbers, sizes) as well as fishing grounds, equipment used, markets targeted and overall fishing effort.

Public consultations and a scientific workshop held in Maintirano in December 2012 have brought together community representatives, local authorities and local stakeholders to discuss fisheries and natural resource management, resulting in a general agreement of all stakeholders for the creation of Melaky's first marine protected area (MPA). A meeting was subsequently held in Antananarivo in 2013 to present progress and projects to national stakeholders and relevant ministries.

During this meeting the perimeter of the MPA was negotiated between the national shrimp fishery union and local communities, and a compromise reached. This agreement was formalised in a workshop held in Maintirano in mid-2013 with all local parties, and a national workshop to finalise the procedure was carried out in Antananarivo in autumn 2013. This workshop resulted in general official agreement on MPA creation on behalf of all project stakeholders.

The MPA Environmental Impact Assessment study has been completed and the process temporary protection status is expected to be completed during 2014.

Lessons learned

BV has realised that long-term financial sustainability is key to the success of LMMAs, BV is working to develop market-based incentives for communities to conserve the ecosystems that underpin their livelihoods. Among these mechanisms are innovative marine ecotourism programmes, voluntary payment schemes and ecocertifications for sustainable fisheries, and the production of carbon credits through mangrove REDD+.

	BV's experience in Madagascar has shown that peer-to-peer learning is a highly effective tool for building local capacity and confidence for fisheries management and catalysing the adoption of community-led conservation efforts. With this in mind, BV is supporting Madagascar's growing network of LMMAs to promote the exchange of know-how, experiences and best practice.
Related websites (English preferred)	www.blueventures.org/conservation/locally-managed-marine-areas.html

Project 2		
Cornerstone(s) implemented through the project	Check all that apply: ☑ Integrated Management ☑ Capacity Building ☑ Science & Monitoring ☑ Periodic Assessment (Review)	
Project Title	Sustainable Fisheries	
Location	Velondriake LMMA, Velondriake LMMA (SW Madagascar), Belo sur Mer (western Madagascar)	
Dates	From 2004 – present	
Main Organizer(s)	Blue Ventures	
Main Stakeholder(s)	Vezo communities of western Madagascar	
Description of Project (Please elaborate on how the project implements the FFA cornerstones)	Blue Ventures promotes sustainable fisheries by supporting communities to implement simple and effective fisheries management measures by using integrated management and building local capacity. These include establishing temporary and permanent marine reserves, as well as the restrictions on destructive fishing practices. By working with private sector partners, such as seafood collection companies, BV is also helping ensuring that management measures bring clear economic benefits to communities, to enable efforts to be sustained in the long term, and scaled wherever communities and seafood buyers depend on sustainable fisheries.	
Outcome (including expected outcome)	Specifically, BV has focused on three traditional fisheries of economic importance to coastal communities: Grey octopus (<i>Octopus cyanea</i>), mud crabs (<i>Scylla serrata</i>), and the multi-species coral reef fishery. <i>Octopus</i> Octopus Octopus is harvested throughout southwest Madagascar and is sold almost exclusively to seafood collection companies for export. Harvesting methods are low-tech, and consist mostly of gleaning with a spear on reef flats during low tide. Management measures have focused on temporary closures of discrete fishing grounds, which complement a regional 6-week closure of the entire southwest octopus fishery during the austral summer (Dec 15th – Jan 31st). To date 176 closures have been held in southwest Madagascar since 2004. A further 18 have been held in northern Madagascar and in August 2012 the first international replication of the management technique occurred on the Mauritian island of Rodrigues. New large-scale data analyses of eight years of octopus landings data quantitatively prove that closures are profitable to communities by increasing total income from octopus at the village level. In addition to this the BV sustainable fisheries programme has focused	
	on gender empowerment with female octopus gleaners; providing	

	basic numeracy and literacy training to enable them to take part in the management of the fishery, which at the moment is dominated by men.
	<i>Crab</i> Similar to octopus, mud crabs (<i>Scylla serrata</i>) are a fast-growing and economically important species. Mud crabs spend the majority of their life cycle in mangrove forests and creeks, and like octopus have the potential to respond well to a similar model of temporary closures of fishing grounds.
	Crab reserves have shown rapid uptake in communities in the Menabe region of western Madagascar, with a total of 21 closures since 2011.
	Finfish Strategies for the management of the mixed species coral reef fisheries include establishment of permanent coral reef and mangrove reserves, and the banning of destructive fishing practices. To date there are 6 permanent reserves covering 110 hectares of reef within the Velondriake LMMA.
	Ongoing ecological and socio-economic monitoring programmes will provide future evidence of the impacts of both temporary and permanent reserves and other management strategies. Surveying is currently undertaken annually on 37 reef sites within the Velondriake LMMA, 12 reef sites in Belo sur Mer and a further 12 sites in the Barren Islands
	Temporary fishery closures are a powerful management tool that can quickly demonstrate the economic benefits of sustainable fisheries management both to coastal communities and seafood buyers, building support for broader and more ambitious marine conservation efforts.
Lessons learned	In a number of cases, these fishery closures have provided the catalyst for the creation of permanent marine reserves. In southwest Madagascar these have been established by communities at many sites in parallel with temporary fisheries closures to form ambitious locally managed marine areas (LMMAs), illustrating the role that effective fisheries management is playing in inspiring local leadership for marine conservation.
	Public – private sector partnerships are also vitally important to connect the community fishers with the national and international marketplace, allowing fishers to sell their goods at a fair price.
	Gender empowerment is vital for the ongoing management of the octopus fishery, where 90% of the gleaners are female but the management committee(s) are almost completely dominated by men.
Related websites (English preferred)	http://www.blueventures.org/conservation/sustainable-fisheries.html

Cornerstone(s) implemented through the project	Check all that apply: ☐ Integrated Management ☐ Capacity Building ☐ Science & Monitoring ☐ Periodic Assessment (Review)		
Project Title	Safidy (Community Health)		
Location	Velondriake LMMA (SW Madagascar), Belo sur Mer (west Madagascar)		
Dates	From 2007 - present		
Main Organizer(s)	Blue Ventures		
Main Stakeholder(s)	Vezo communities of western Madagascar		
Description of Project	The Safidy programme is a key component of Blue Ventures' integrated Population-Health-Environment (PHE) approach. This approach empowers coastal communities in Madagascar to live healthily and sustainably with their marine environment by combining health education and services with locally led marine conservation and alternative coastal livelihood initiatives. The Safidy programme encompasses sexual and reproductive health (SRH), maternal and child health (MCH), and water, sanitation and hygiene (WASH) initiatives.		
(Please elaborate on how the project implements the FFA cornerstones)	Local women are trained as community-based distributors of health products, and BV runs outreach clinics to complement these services. Safidy means "the freedom to choose" in Malagasy, and the programme's rights-based approach to family planning empowers couples to make their own reproductive health choices by offering them counselling and contraceptive options suited to different needs. A variety of peer-led community education activities are facilitated to support the uptake of services and encourage the sustained adoption of healthier practices. Radio programmes, promotional merchandise, community events, youth club sessions and school workshops using theatre, sports, music and film engage communities in health and conservation topics.		
Outcome (Expected	The Safidy programme has been running in the Velondriake area since August 2007, and now serves 15,000 people across 40 villages. Key achievements over the past year include the consolidation of SRH and MCH services across all 40 villages, and a variety of peer-led behaviour change initiatives including a highly popular radio series and condom outreach in bars.		
outcome)	BV started replicating the programme in the Belo sur Mer area in May 2014, training local women as community-based distributors of contraceptives to serve 5,000 people across 10 villages. Next year Blue Ventures plans to further expand the Safidy programme to extremely under-served migrant populations in the Barren Isles LMMA.		
Loggonglesome	Training local women as community-based distributors has been found to be an effective way of providing isolated villages with access to basic health information and products.		
Lessons learned	Integrating community healthcare with locally led marine conservation initiatives has been found to empower women to become more involved in fisheries and coastal resource management while engaging men by linking food security concerns with family planning.		
Related websites (English preferred)	http://www.blueventures.org/conservation/community-health.html		

Cornerstone(s) implemented through	Check all that apply: ☑ Integrated Management ☑ Capacity Building	
the project	☐ Science & Monitoring ☐ Periodic Assessment (Review)	
Project Title	Belize and Invasive Species	
Location	Belize	
Dates	From 2010 - present	
Main Organizer(s)	Blue Ventures	
Main Stakeholder(s)	Fishing communities of northern Belize	
	Blue Ventures has been working in Belize since 2010. Since this time BV has been working on the facilitation of a market-based intervention for the management of invasive lionfish. Lionfish are now being actively removed by fishers for international export and for sale in the developing domestic market.	
	BV conducts comprehensive biological monitoring of two connected MPAs in northern Belize: Bacalar Chico Marine Reserve and Corozal Bay Wildlife Sanctuary. The results of these monitoring activities are shared with management agencies, the Belize Fisheries Department and the Sarteneja Alliance for Conservation and Development in annual reports, through participatory conservation action planning sessions, and internal review sessions.	
Description of Project (Please elaborate on how the project implements the FFA cornerstones)	In addition, BV works with the stakeholder communities, of these protected areas in Belize, to increase awareness of environmental threats and engage fishers in the accomplishment of conservation targets.	
	Nationally, BV is an active member of Belize's National Coral Reef Monitoring Network, which provides a framework for all coral reef conservation organisations to work to, collaboratively strategizes responses to discrete threats, and coordinates coral reef-related outreach efforts. BV is also a key partner in the development of Belize's National Biodiversity Monitoring Program, which seeks to implement coordinated, standardised biodiversity monitoring to enable sustainable natural resource use and management nationally. BV has also been involved in the production of regional biodiversity reports and environmental audits for the Mesoamerican Reef (MAR), through our partnership with the Healthy Reefs Initiative, as well as participates in the development of a MAR strategy for the control of invasive lionfish	
Outcome (Expected outcome)	Blue Ventures is actively supporting efforts to commercialise Belize's nascent 'lionfishery'. Regular safe-handling demonstrations provide practical training for fishers in adapting their fishing behaviours to target lionfish. Taster events have successfully raised the profile of lionfish as an edible, tasty fish; it is now becoming a regular sight on restaurant menus.	
	Over the next year the project will focus on growing the domestic lionfish market as well as continuing the monitoring efforts in the local MPAs.	
Lessons learned Initially nervous to fish or eat lionfish, consistent messaging and frequent safe-handling and taster events were essential to give confidence for the first fishers and restaurants to catch and sell lionfish. These efforts were concentrated in Sarteneja, Belize's la		

fishing village, and are now being replicated in communities around the country. The disjunction existed where fishers required a guaranteed market, while potential buyers wanted a reliable and continuous supply. Partnership with local fishing cooperatives to act as central handling facilities for lionfish provides the necessary support to both suppliers and buyers. As cooperatives pay a lower price than restaurants, creating fisher-restaurant partnerships has also increased the number of fishers targeting lionfish. The majority of restaurants serving lionfish are in tourist areas, where demand is greatest. The significant media coverage following the first export of lionfish to the USA had the desired effect in increasing interest in lionfish nationally, however prohibitive export costs have hindered the development of the export market, despite insatiable international demand. Identifying cost-effective export routes, building demand outside of tourist areas, and raising willingness to pay are the essential next steps in lionfish market development. Related websites http://www.blueventures.org/what-we-do/invasive-species.html (English preferred)

Note: If you have more activities/projects/programs you would like to report on or share with other members, please duplicate the table above and fill it in for as many projects as you wish.

2. **Contribution to the ICRI Plan of Action and GM.** Your responses to the following questions will assist the Secretariat in assessing contributions towards the major themes of the current ICRI Plan of Action (http://www.icriforum.org/icri-secretariat/current) and objectives of the general meeting.

a. Engaging other sectors

As one of the themes in the current Plan of Action, *engaging other sectors* will be addressed in a workshop during GM29. In the workshop, we would like to focus on collaborations among different sectors that are driven by local communities living near reefs. By highlighting cases of coral reef conservation and management as well as awareness-raising activities that are carried out at the community level, we would like to explore ways of simultaneously pursuing the conservation of coral reefs and the sustainable development of the local communities.

Does your country/organization have a successful case that exemplifies the description above? If yes, please elaborate in the space below.

BV runs a "Village Outreach Tours" which visits 20 villages in the Velondriake area (and 10 villages in the Belo sur Mer area) every three months in order to raise awareness about environmental and health issues among children, youth and adults. This educational roadshow is a key component of BV's integrated Population-Health-Environment (PHE) approach, reinforcing the idea that improving health, offering family planning options, increasing access to education, and managing coastal resources sustainably are all essential to striking a balance between the local population and the unique marine environment upon which their livelihoods depend.

b. Reef zoning for multiple use

In GM30, we are planning to address the theme of *reef zoning*. Do you have zoning in place for your marine reserves? If yes, please answer the questions in the following table:

Location where a zoning plan has been implemented		
Year when the zoning plan was implemented		
Is the zoning plan accepted by the local community?	□ Yes □ No	
Did the zoning plan cause conflicts among stakeholders?	☐ Yes ☐ No	
Did the zoning plan resolve conflicts among stakeholders?	☐ Yes ☐ No	
Has there been effective enforcement for stakeholders to follow the	☐ Yes ☐ No	
zoning plan?		
Overall, how would you rate the success of the zoning plan?	☐ Very successful	
	☐ Somewhat successful	
	☐ Not so successful	
	□ Unsuccessful	

In light of the questions above, please elaborate on your experience with *reef zoning* and lessons learned.

[Insert text here]

Note: If there are more locations with zoning plans in your country / organization, please duplicate the table and question above and fill them in.

3. **Publications.** Please list relevant publications/reports you have released during this reporting period.

Title (incl. author and date)	Website URL if available	Type of publication (Paper, report, etc.)
Andriamalala, G. Peabody, S., Gardner, C.J. and Westerman, K. 2013. Using social marketing to foster sustainable behaviour in traditional fishing communities of southwest Madagascar. Conservation Evidence, 10: 37 - 41	http://bit.ly/1nrLAAW	Paper
Ateweberhan, M., Hudson, J., Rougier, R., Harris, A., Jiddawi, N. and Msuya, F.E. 2014. Community based aquaculture in the western Indian Ocean: Challenges faced and lessons learned. Blue Ventures Conservation Report.	http://bit.ly/1seGBI6	Report
Benbow, S., Humber, F., Oliver, T.A., Oleson, K.L.L, Raberinary, D., Nadon, M., Ratsimbazafy, H. and Harris, A. 2013. Lessons learnt from experimental temporary octopus fishing closures in south-west Madagascar: benefits of concurrent closures. African Journal of Marine Science, 36 (1): 31-37	http://bit.ly/1kmqeKo	Paper
Chapman, J.K. 2013. Obstacles and opportunities in developing commercial markets for invasive lionfish - lessons learnt from Belize. Proceedings of the Gulf and Caribbean Fisheries Institute 66th Annual Conference		Abstract and presentation
Chapman, J.K. 2014. Status of marine resources in Bacalar Chico Marine Reserve 2013. Blue Ventures Conservation Report	http://bit.ly/1oqwo7t	Report
Chapman, J.K. and Gough, C.L.A. 2013. An assessment of the ecological integrity of Bacalar Chico Marine Reserve and National Park: Recommendations for a renewed, science-based management plan. Blue Ventures Conservation Report	http://bit.ly/1qWyyU8	Report
Chapman, J.K., Gough, C.L.A., Hudson, J.E., Humber, F.K. and Harris, A.R. 2013. All boom and no bust as the lionfish invasion progresses in Bacalar Chico Marine Reserve, Belize. Proceedings of the Gulf and Caribbean Fisheries Institute 66th Annual Conference		Abstract and presentation
Gardner, C., Nicoll, M.E., Ratsifandrihamanana, A.N., Virah-Sawmy, M., Mbohoahy, T., Ratsirarson, J., Oleson, K.L.L, de Roland, L.A.R., Zafindrasilivonona, B. and Davies, Z.G. 2013. Protected areas for conservation and poverty alleviation: experiences from Madagascar. Journal of Applied Ecology, 50: 1289-1294	http://bit.ly/1kmqqt7	Paper
Humber, F., Godley, B.J., Broderick, A.C. 2014. So excellent a fishe: a global overview of legal marine turtle fisheries. Diversity and Distributions, 20: 579-590	http://bit.ly/1kGFG4p	Paper

Jones, T.G. 2013. Shining a light on Madagascar's mangroves. Madagascar Conservation and	http://bit.ly/1AUad3r	Editorial
Development, 8 (1): 4 - 6		
Jones, T.G., Ratsimba, H.R.,	http://bit.ly/1AUbo2K	Paper
Ravaoarinorotsihoarana, L., and Cripps, G. 2014.		
Ecological variability and carbon stock estimates		
of mangrove ecosystems in northwestern		
Madagascar. Forests, 5: 177 - 205		
Harris, A., Wilson, S., Graham, N., Sheppard, C.	http://bit.ly/V1cRmE	Paper
2014. Scleractinian coral communities of the		
inner Seychelles 10 years after the 1998		
mortality event. Aquatic Conservation: Marine		
and Freshwater Ecosystems, 10.1002/aqc.2464		
Mohan, V., Shellard, T. 2014. Providing family	http://bit.ly/X1c1bG	Paper
planning services to remote communities in		
areas of high biodiversity thorugh a Population-		
Health-Environment programme in Madagascar.		
Reproductive Health Matters, 10.1016/S0968-		
8080(14)43766-2		
Rocliffe, S., Peabody, S., Samoilys, M. and	http://bit.ly/1mlJZgz	Paper
Hawkins, J.P. 2014. Towards A Network of		
Locally Managed Marine Areas (LMMAs) in the		
Western Indian Ocean. PLOS ONE		

4. **General Information.** (Note that this information will be posted on the ICRI website on your member page: http://www.icriforum.org/about-icri/members-networks.)

Member type (Country / Organization):	
Focal Point 1:	
Name:	Alasdair Harris, Ph.D
Title/Organization:	Executive Director & Founder / Blue Ventures
Email:	al@blueventures.org
Focal Point 2:	
Name:	Frances Humber
Title/Organization:	Conservation Programmes Manager / Blue
	Ventures
Email:	<u>fran@blueventures.org</u>

Thank you very much for sharing your valuable experiences and information with ICRI.