



Timorese-Australian knowledge exchange and participatory fisheries monitoring evaluation
skill development: Final Report



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Executive Summary

The report presents a group training program conducted as part of an ongoing research collaboration about community-based marine management between Jenny House, Research Institute for the Environment and Livelihoods (RIEL), Charles Darwin University and Blue Ventures Conservation, Timor-Leste. Support from the Crawford Fund enabled eight Timorese marine management practitioners to visit Darwin from 29th August – 2nd September to participate in an intensive program of skill development and relationship building activities with numerous researchers and other relevant stakeholders in Darwin. Topics included First Nations community governance, qualitative research skills, inclusive and sustainable fisheries management, nature-based livelihoods, and conservation. The participants also shared their innovative approach to community-based natural resource management with Australian researchers and interested stakeholders at a seminar held at Charles Darwin University (CDU). A follow-up session was conducted online on the 7th October to encourage knowledge dissemination and use of the program material by participants in their work.

Introduction

In Timor-Leste, small-scale fisheries are an important part of many people's livelihoods (López Angarita et al., 2019), which tend to be quite diverse, with a strong agricultural component. For example, 79.6% of households grow crops, 87.2% raise animals, and 4.9% engage in fisheries (Timor-Leste National Statistics Directorate, 2015). Coastal communities rely heavily on small-scale fisheries (Mills et al., 2017) and there has been a recent increase in implementation of community-based fisheries management (CBFM) approaches across the country to manage these valuable marine resources (Alonso-Población et al., 2016; Tilley et al., 2019). Many of these marine management interventions are driven by international organisations in collaboration with national government and local communities. However, to date little is known about the level and type of community participation that is achieved, and the ecological, social and economic impact of these interventions. The involvement of international organisations in facilitating CBFM may generate complex power dynamics in addition to inequalities that already exist within communities (Evans et al., 2011; Steenbergen & Visser, 2016). There is a risk that CBFM may further marginalise particular user groups if these power dynamics are not recognised. Marine management practitioners require a variety of interdisciplinary skills and knowledge in order to incorporate these considerations into their work, thus ensuring equitable and sustainable marine management.

Blue Ventures Timor-Leste (BVTL) is an international non-governmental organisation which works with fishing communities to manage fisheries and other marine resources, advocate for fisher rights, and to cultivate sustainable livelihoods. Blue Ventures takes a community-driven approach to fisheries management in Timor-Leste and is involved in an ongoing research collaboration with Jenny House (RIEL) as part of the PhD project, "Community-based fisheries management through a gender lens: examining gendered participation in fisheries management and monitoring in Timor-Leste". This research collaboration involves a participatory photography project which explores women's participation in a Blue Ventures led community-based fisheries monitoring program. The need for this group training was identified during this collaboration, during which BVTL staff requested further skill training concerning data analysis, utilisation of the findings of the research, and more training to repeat the method used (Photovoice, a participatory photography evaluation method) independently in their future work. They also identified the need to develop their knowledge and skills in a variety of other technical areas, including ecology, fisheries science, livelihood development, data analysis, and community engagement.

This report documents the knowledge exchange hosted by Research Institute for the Environment and Livelihoods (RIEL), Charles Darwin University and funded by the Crawford Fund's group training grant. This exchange was designed for the Timorese participants to develop skills, and to share their extensive experience with researchers and natural resource management practitioners in Australia. In the NT, the use of participatory approaches is increasingly recognised as crucial for community-based NRM and there are a number of programs engaging Indigenous communities in sea country planning and management. As such, BVTL's work on participatory marine management and monitoring, as well as livelihoods is highly relevant for researchers and NRM practitioners in the NT.

Knowledge exchange activities

The Crawford Fund grant allowed eight BVTL staff to visit Charles Darwin University from 29th August – 2nd September to participate in a knowledge exchange with various researchers and stakeholders. The itinerary was developed in collaboration with Blue Ventures leadership and the program participants. A follow-up session was conducted online on the 7th October to encourage knowledge dissemination and use of the program material by participants in their work. This section of the report outlines the various activities conducted during the visit.



Figure 1: The itinerary was shared with participants in advance and refined based on their feedback.

Group reflection sessions

Participants reflected on their goals and priorities during the itinerary development and then formalised this in the introductory session on the first day of the program. Throughout the exchange daily group discussions were held to ensure that participants had time to reflect on the material and consider the implications for their own lives and work. This is an important aspect of knowledge exchange and ensuring that participants get the maximum benefit from their experience (Kumar et al., 2018). Each day commenced by participants reflecting on the key learnings from the previous day. The participants also reflected on the entire program in their feedback forms and in the follow-up session a month later.

Workshop: First Nations community governance and NRM in Australia and Timor-Leste

Many of the participants have never visited Australia before so one of the objectives of the first day was to provide valuable context and to set the tone for the week. Associate Professor Natasha Stacey, RIEL/CDU gave an introduction on behalf of RIEL and the NT Crawford Fund to welcome the participants to Darwin. Sorrell Ashby, a Gamilaroi woman and entrepreneur specialising in governance, led a discussion with the participants about First Nations governance and natural resource management. The group discussed topics such as community engagement, what self-determination means to them, similarities and differences of First Nations experiences in Timor-Leste and Australia. The Timorese participants were shocked to learn more about Australia's history and the way coastal resources are managed here. The participants reflected on the opportunities and challenges for coastal communities in Timor-Leste, and how they can support communities to realise their rights and manage their resources in a way that aligns with the values and priorities.



Figure 2: a) Natasha Stacey received a tais, b) Sorrell Ashby from Guumali shared her story and had a discussion with the participants about First Nations governance, natural resource management and self-determination.

Skill development session: working with qualitative data

Qualitative research can be a valuable tool for informing marine management, but program participants stated that, although they collect qualitative data in their work, they did not feel confident in analysing or using this data effectively. In the past, they have relied on external support to analyse this data, often reducing the quality of the data interpretation in the process. This session introduced qualitative data analysis and used some of the data collected as part of the research collaboration with RIEL to demonstrate some based techniques in data analysis. By the end of this session, participants could:

- Understand the difference between quantitative and qualitative data and their benefits and limitations
- Understand some key considerations when designing qualitative research and working with qualitative data, e.g. positionality, ethics, participant selection
- Conduct basic inductive coding of data collected during the ongoing research collaboration
- Use codes to develop themes and then consider how those themes might relate to theory or existing knowledge

Due to time constraints, the session was not completed in its entirety so a second session will be conducted online to complete the workshop. The session will cover basics of deductive coding.



Figure 3: Participants work in pairs to code qualitative data collected using participatory photography. The data is from an ongoing research project about participatory fisheries monitoring.

Seminars: knowledge exchange with CDU researchers

One of the highlights of the program was a series of seminars by Blue Ventures staff and CDU researchers to share knowledge and approaches to a variety of marine management and livelihood topics. Opportunities were also created for informal networking and building relationships. The seminar topics were selected to cover relevant topics or methods which could be applied in the NT and Timor-Leste, and which may lead to collaboration opportunities in the future. Priority topics were identified by program participants in advance. The seminar topics were:

1. Thriving Fishers, Thriving Oceans: Blue Ventures work in Timor-Leste, Dedy Martins
Available to watch (Tetum & English): <https://www.youtube.com/watch?v=18SZYFHomhM>
2. An overview of Rod Surface Elevation Tables (RSETs) in Timor-Leste (Mangroves and Blue Carbon), Madeline Goddard and Lindsay Hutley, CDU
3. RIEL coastal livelihoods research, Natasha Stacey, RIEL/CDU
4. Aboriginal seafood enterprises and fisheries management in the NT, Clement Bresson, ANU
5. Shark fisheries, Amy Kirke, RIEL/CDU
6. Australian native wild rice commercialisation, Penny Wurm, RIEL, CDU
7. Long-necked turtles in Timor-Leste, Carla Eisemberg, CEITE/CDU
8. Community-based mapping of benthic habitats in Marra and Yanyuwa Sea Country, Rachel Groom, NI/CDU



Figure 4: a) Members of Blue Ventures, CDU and other NT organisations gathered for a seminar about Blue Ventures' work in Timor-Leste, b) Carla Eisemberg presents her research on long-necked turtles in Timor-Leste, c) Dedy Martins presents Blue Ventures' work.

Visits with local citizen science groups: gamba grass and shorebirds

Since the Blue Ventures team works closely with local community groups and volunteers in Timor-Leste the participants learned about a variety of ongoing ecological monitoring programs in Darwin. One of these was BirdLife's migratory shorebird monitoring program, which involves local volunteers in conducting surveys and submitting data via a smartphone app, similar to Blue Ventures' catch monitoring program. At Casuarina Coastal Reserve, the participants learned about the work that Parks and Wildlife do to manage gamba grass, combined with the community Adopt-A-Spot program. The participants were particularly interested in how community action, multi-stakeholder collaboration, and data collection has been used for advocacy and coastal management.



Figure 5: a) Gavin O'Brien explained BirdLife's migratory shorebird monitoring program at Lee Point, b) Dave Liddle told the story of how government and community collaboration helps to tackle gamba grass at Casuarina Coastal Reserve.

NT Fisheries and Darwin Aquaculture Centre

The participants visited NT Government Fisheries Division and Darwin Aquaculture Centre to learn about fisheries management in the NT, a variety of ongoing aquaculture enterprises and research projects, and how these departments work with the public to manage marine resources. The team were interested to learn about the approaches used in Australia and to compare it with their experiences in Timor-Leste. For example, the team were interested to see the technology and methods used to conduct marine research and management in the NT which they have also been interested in using in their own work, e.g. BRUVs, fisher logbooks, and catch data dashboards.



Figure 6: a) Shane Penny gave the participants a tour of the NT Fisheries facilities and provided an overview of how fisheries are management in the NT, b) the team toured Darwin Aquaculture Centre with Cameron Hartley to learn about their work and a number of economic enterprises happening in the NT.

Results of the knowledge exchange

Overall, the Crawford Fund grant has enabled the knowledge exchange program to meet the objectives identified by the participants and facilitators. The primary objectives were knowledge exchange, skill development and relationship building across a range of topics. In addition to learning about new natural-resource management, livelihoods, and science topics, the program allowed the participants to deepen their understanding of specific topics in which they work for example the ongoing qualitative research collaboration with CDU, or the different ways of conducting ecological monitoring work with community groups. The participants all completed feedback forms and a follow-up discussion after a month to reflect on their learnings and consider how they can use the new knowledge and connections in their work. The team identified four main areas: 1) learning about different methods and technical information (relating to fisheries, seagrass, mangroves, livelihoods), 2) approaches and tools for community engagement, 3) qualitative data and understanding the participatory photography research project better, and 4) building relationships and having new experiences. The participants commented on different areas which interested them the most:

“Very incredible opportunity for the Fisheries and Livelihood team at Charles Darwin University and we covered useful topics such as various fisheries and livelihood research and being able to apply several methods and tools according to the Timor-Leste context. This is a very good time to do this exchange activity because Blue Ventures Timor-Leste is also in the process of doing research on fisheries and livelihood programs so we can apply what we have already got during the exchange. My recommendation in the future is to continue to collaborate with CDU in conducting research.”

“I am grateful for the fantastic week hosted by the RIEL at CDU where we were introduced to science experts and researchers who share the same values as Blue Ventures in conservation and collective action. We learned about the Larrakia people’s unique culture and rich country, which we will be conscious of when we do our outreach activities with the communities Blue Ventures support in Timor-Leste.”

Each participant has identified the material which is most relevant to their own work and has identified NT researchers and practitioners who they may want to establish ongoing relationships with. Since the exchange there has been communication between several exchange participants from Australia and Timor-Leste. The program participants prepared a dissemination presentation after the follow-up session to share their experience with their colleagues in Timor-Leste (see appendix). They also provided feedback about how any similar programs should be conducted in the future and recommended that the program could be replicated for other marine managers or government staff. Participants appreciate the range in perspectives and the variety of stakeholders that participated in the programme, although the schedule was quite intense and did not allow much free time to experience Darwin. Although they found this programme relevant and useful as a first step, many participants stated their interest in participating in more bespoke programmes in the future which could support them with their professional and personal development or be applied to their specific roles. This general programme built a necessary foundation, but we recommend that a group exchange like this programme be followed up with individual mentoring.

Blue Ventures staff have posted about the activities in Tetum and English on their social media. Outreach materials have also been prepared for RIEL/CDU media and the Crawford Fund social media (to be published).



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Appendix: Extract from dissemination presentation developed in the follow-up session

INTERKAMBIU KONESEMENTU ENTRE TIMORENSE-AUSTRALIANU NO DEZENVOLVIMENTU ABILIDADE ATU HALAO MONITORIZASAUN & AVALIASAUN IHA PESKAS NE'EBE INKLUSIVU

Reflection

Agenda

- 1 Outline the exchange programme
- 2 Share take home messages and highlights from the exchange
- 3 Identify potential relationships & opportunities
- 4 Next steps

Knowledge exchange objectives

- 1 Knowledge and skill development
- 2 Sharing expertise with Australian researchers
- 3 Relationship building
- 4 Personal and professional development

Darwin Itinerary

WED - Fisheries visit
THURS - Gashong
FRI - Sea Base

Key points

- TECHNICAL INFORMATION & DIFFERENT METHODS (Mangroves, seagrass, fisheries, livelihoods)
- COMMUNITY ENGAGEMENT
- QUALITATIVE DATA & PHOTOVOICE PROJECT
- NEW EXPERIENCES & BUILDING RELATIONSHIPS

TECHNICAL INFO & NEW METHODS

- LEARNING THE SCIENCE FACE TO FACE - MANOROVES, FISHERIES, SEAGRASS ETC
- INDIGENOUS CULTURES AND REALITIES IN AUSTRALIA
- NEW METHODS & TECHNOLOGY - E.G. CAMERAS FOR SEAGRASS, SEDIMENT & CARBON IN MANOROVES, SURVEY METHODS
- FISHERIES - DIFFERENCES IN MANAGEMENT SYSTEM
- LIVELIHOODS & BUSINESS DEVELOPMENT
- DIFFERENT WAYS OF USING DATA FOR MANAGEMENT

COMMUNITY ENGAGEMENT

- COMMUNITY CONSULTATIONS & CULTURAL CONSIDERATIONS
- SELF-DETERMINATION & NATURAL RESOURCE MANAGEMENT
- USING DATA (CITIZEN SCIENCE) TO ENGAGE COMMUNITY AND FOR ADVOCACY E.G. GAMBA GRASS
- LIVELIHOOD INITIATIVES DON'T ALWAYS BENEFIT CONSERVATION. WHY?
- COMMUNITY ACTION
- DIFFERENT PRIORITIES FOR FISHERIES MANAGEMENT FOR DIFFERENT GROUPS

QUALITATIVE DATA & PHOTOVOICE

- UNDERSTANDING THE PHOTOVOICE PROJECT BETTER
- THE BENEFITS OF QUAL & AND QUANT DATA
- HOW TO ANALYSE QUALITATIVE DATA
- USING QUALITATIVE DATA TO AMPLIFY THE VOICES OF PARTICIPANTS

NEW EXPERIENCES & BUILDING RELATIONSHIPS

- POTENTIAL COLLABORATIONS & SHARING OUR WORK (NATASHA STACEY, LINDSAY HUTLEY, MADDIE GODDARD, RACHEL GROOM, SHANE PENNY)
- SEEING DARWIN, VISITING CDU & TOURIST SPOTS
- 'ST TIME OUTSIDE OF TIMOR-LESTE!

NEW EXPERIENCES & BUILDING RELATIONSHIPS

- POTENTIAL COLLABORATIONS & SUPPORT (NATASHA STACEY, LINDSAY HUTLEY, MADDIE GODDARD, RACHEL GROOM, SHANE PENNY)
- SEEING DARWIN, VISITING CDU & TOURIST SPOTS
- 'ST TIME OUTSIDE OF TIMOR-LESTE!
- 'ST TIME DOING AN EXCHANGE LIKE THIS AS A TEAM
 - WHAT DID WE LEARN ABOUT ORGANISING THIS KIND OF PROGRAMME?
 - HOW DO WE WORK AS A TEAM AND SUPPORT EACH OTHER?
 - WHAT WOULD WE DO DIFFERENTLY?
- FUN & ENJOY!