



Guidelines for ethical and effective communication for researchers working in Torres Strait

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CRC Torres Strait Report

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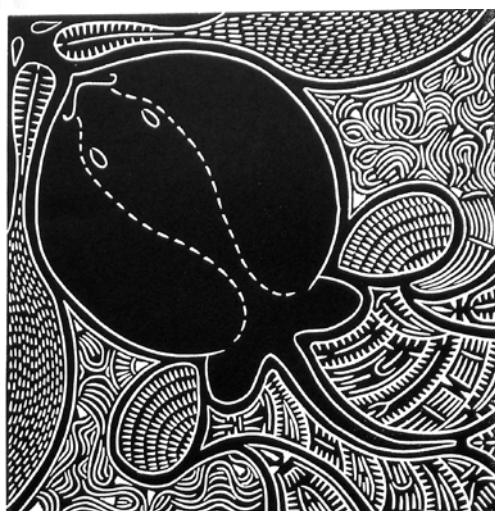
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Thupmul (black stingray) by Billy Missi. 'Thupmul is a traditional food of islanders. Thupmul is Western Torres Strait dialect for black stingray. They are plentiful in and during the monsoon throughout Torres Strait.

Thupmul is also a totem for people of certain clan groups' (B. Missi pers. comm.). *Thupmul* is reproduced with permission from the artist. The design on the front cover and the following pages are taken from this artwork.

NON-TECHNICAL SUMMARY

Guidelines for ethical and effective communication for researchers working in Torres Strait

Authors: Annabel Jones and Bryony Barnett.

In a recent review of previous research concerning Torres Strait fisheries, Sen (2000) suggested that some projects were out-of-step with management needs, most likely due to inadequate and irregular communication between management and scientific bodies. She also noted that much of the potential value of past research had not been captured due to the limited communication of results to Islanders, concluding that extension and transfer of research information is critical to the future success of Torres Strait research.

CRC Torres Strait funded this research task to address these concerns, by developing protocols and guidelines for researchers working in Torres Strait as well as culturally appropriate and effective methods of consultation, negotiation and communication.

The research task involved:

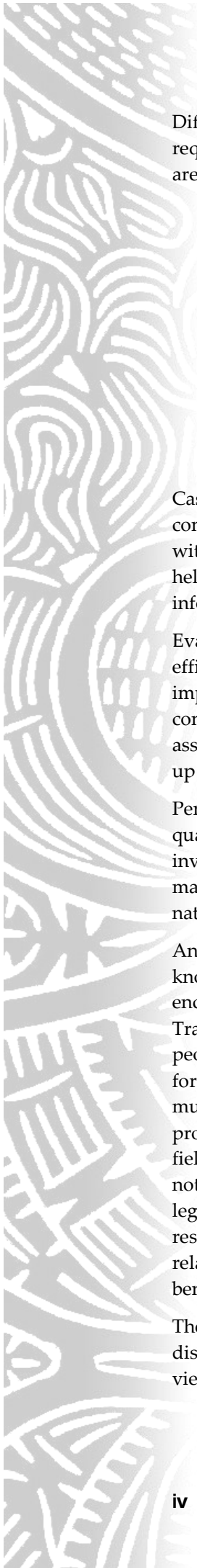
- o Reviewing existing protocols, communication methods related to research involving Indigenous people and extension plans for current and future Torres Strait research.
- o Discussing research protocols and communications in Torres Strait with researchers, Islanders, managers and government workers.
- o Observing researchers communicating with Torres Strait Islanders.
- o Conducting a workshop to discuss research results with researchers, Islanders, managers and government workers.

Differences in the way that Indigenous and non-Indigenous people communicate and approach research are discussed as a basis to understanding past communication problems. Traditionally, Indigenous knowledge is transferred orally, through experience, storytelling, song, dance and art. In contrast, non-Indigenous communication tends to be based on the written or recorded word, and more recently through the electronic medium. These differences highlight the challenges for communication between the cultures.

A review of 30 different protocols and guidelines from organizations working with Indigenous people, some specifically in Torres Strait, identified common themes that formed the basis of a set of protocols and guidelines for conduct of ethical research in Torres Strait:

1. Consultation, negotiation and mutual understanding.
2. Respect, recognition and involvement.
3. Benefits, outcomes and agreements.
4. Cultural and intellectual property.

There are limitations to the use of a generalised set of protocols for researchers working in a dynamic environment such as Torres Strait, in different situations and communities. Researchers working in Torres Strait need to consider potential issues and sensitivities related to particular research, and be aware of any protocols specific to individual communities.



Different communication tools were assessed and compared with regard to required skills, strengths, weaknesses and cost. These tools are grouped in 11 focus areas:

1. Relationship building
2. Meetings and workshops
3. Presentations
4. Interactive activities
5. Printed products
6. Visual tools
7. Displays and exhibits
8. Media and newsletters
9. Education and training
10. Capacity building
11. Advisory committees and task associates.

Case studies from Torres Strait research projects provide examples of effective communication with Islanders, using an assortment of communication tools from within these focus areas. Guidelines for conducting each activity are provided to help researchers in planning communication activities and to encourage creative information transfer.

Evaluation of communication activities will enable researchers to assess the efficiency and effectiveness of the activities, and provide direction for improvement and information for accountability. Evaluation styles suited to communication at different stages of a research project include: initial needs assessment and baseline studies, formative and summative evaluation, and follow-up studies.

Performance indicators for communication activities can be quantitative or qualitative eg. the number of people attending a public meeting, the number of invitations received to address advisory committees, the uptake of research into management policy, perceptions of stakeholders, comments from people, or the nature of follow-up questions.

An understanding of the issues related to intellectual property and traditional knowledge may help researchers to understand past problems in this area, and encourage more sensitive approaches and better relationships with Islanders. Traditional knowledge has developed over centuries from the need by Indigenous people to be self-sufficient in remote areas and covers all aspects of everyday life for Islanders. Traditional knowledge to a large extent lies in stories, dance and art, much of which is not formally recorded in a physical way. In contrast, intellectual property is related to ownership and use of outputs from intellectual activity in the fields of science, literature and art recorded physically. Traditional knowledge is not recognised formally as intellectual property under current Australian legislation. A formal written research agreement brokered between Islanders and researchers may be the first step in overcoming these problems and building relationships between researchers and Islanders based on mutual trust, shared benefits and transparency.

The key principle underpinning many of the guidelines, tools, tips and suggestions discussed in this report is respect. Respect for people, culture, country, beliefs, and views. It is through cross-cultural awareness and mutual respect that relationships

will be built and research partnerships developed. Each research project needs to be considered on an individual basis, and the suitable protocols and guidelines followed.

This approach will challenge funding agencies to recognise these activities as legitimate requirements to the research framework in Torres Strait. There are challenges also for researchers to look at research from a new perspective - from a Torres Strait Islander's point of view.

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ACRONYMS

ACIAR	Australian Centre for International Agricultural Research
AFMA	Australian Fisheries Management Authority
AIATSIS	Australian Institute of Aboriginal and Torres Strait Islander Studies
AIMS	Australian Institute of Marine Science
AQIS	Australian Quarantine and Inspection Service
ASCA	Australian Science Communicators Association
ASTEC	Australian Science, Technology and Engineering Council
CINCRM	Centre for Indigenous Natural and Cultural Resource Management
CRCATH	Cooperative Research Centre for Aboriginal Tropical Health
CRC TS	Cooperative Research Centre for Torres Strait
CRC Reef	Cooperative Research Centre for the Great Barrier Reef World Heritage Area
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DAFF	Department of Agriculture, Fisheries and Food (Australia)
DATSIP	Department of Aboriginal and Torres Strait Islander Policy and Development
DPI&F	Queensland Department of Primary Industries and Fisheries
DUAP	Department of Urban Affairs and Planning
GA	Geoscience Australia
GBRMPA	Great Barrier Reef Marine Park Authority
ICC	Island Co-ordinating Council
JCU	James Cook University
NHMRC	National Health and Medical Research Council
NOO	National Oceans Office
NQIAWG	North Queensland Indigenous Aquaculture Working Group
PCQ	Ports Corporation Queensland
PNG NFA	Papua New Guinea National Fisheries Authority
PZJA	Protected Zone Joint Authority
QSIA	Queensland Seafood Industry Association
TSIMA	Torres Strait Islander Media Association
TSPEH	Torres Strait Prawn Entitlement Holders
TSPZ	Torres Strait Protected Zone
TSRA	Torres Strait Regional Authority
WTMA	Wet Tropics Management Authority

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A special thanks to the Torres Strait Islanders who have allowed us to reproduce their beautiful art in this report as illustrations. Especially to Billy Missi who permitted use of designs from his work *Thupmul* featured on the front cover and throughout the report.

This project was funded and supported by CRC Torres Strait and we thank them for recognising the importance of protocols and guidelines for communication by researchers in Torres Strait.

AUTHOR PROFILES

Annabel Jones

After growing up in a farming family in country South Australia, I saw my future in the sea. I headed north for a marine biology degree at James Cook University. After a short stint in molecular biology I took a position as a communication officer with the then Effects of Line Fishing Project (now the Fishing and Fisheries Project) at CRC Reef Research Centre focussing on communicating fisheries science information to a wide range of stakeholders including fishers.



Several years ago our group began researching the reef line fishery in Torres Strait. I see some parallels between the two research areas with sometimes difficult relationships between researchers and stakeholders and inefficient communication of research results. There is of course, a completely different set of characteristics in the Torres Strait that will require novel research and communication techniques.

I am definitely not an expert at communication to either Torres Strait Islanders or east coast line fishers. I am keen to learn though, and hence the reason for my interest in this project.

Bryony Barnett

I grew up in rural England, the twin daughter of a fruit grower and a district nurse, and spent many happy hours playing with my siblings in the Essex salt-marshes, up to our knees in black mud. It was inevitable that I studied biology and geology at university, followed by my first job as a field studies tutor, teaching students about salt-marsh ecology. Two years later I was enticed to Australia to do a Masters course in Tropical Marine Biology at James Cook University in Townsville – the start of a love affair with the Great Barrier Reef. Many years later (still in Australia), after a career in marine research, natural resource management, and extension, I'm indulging new passions - growing native rainforest trees in the Wet Tropics, and working with rural communities and Indigenous people to promote shared knowledge of our environment.

This research project with CRC Torres Strait has provided a wonderful opportunity to learn about the Torres Strait culture, and to work with community members, researchers and managers, to find new ways of talking with each other.



1 INTRODUCTION

'We have been informed from our international research and development that Indigenous peoples share a deep mistrust of research. Along with other moves towards decolonising ourselves and gaining greater control over our own lives, has come a recognition that we have our own questions that need answering. Indigenous research has developed as an insider way of knowing and doing research for, with and by indigenous people, to change, to develop our indigenous world.'

World Indigenous Peoples Conference in Education. 2005.

Research on Torres Strait's unique marine resources has been conducted since Alfred Haddon first visited the region in 1888. More recently, research has tended to focus on social and health sciences, and biological sciences concentrating on commercial and traditional fisheries. In a recent review of previous research concerning Torres Strait fisheries management, Sen (2000) suggested that some projects were out-of-step with management needs, most likely due to inadequate and irregular communication between management and scientific bodies. Sen (2000) also noted that much of the potential value of past research had not been captured due to limited extension and transfer of results to stakeholders. In a foreword to *Mina Mir Lo Ailan Mun: Proper communication with Torres Strait Islander people* (DATSIP 2000a), Getano Lui AM said 'This was due not so much to a lack of material resources, but to a lack of understanding on the part of those not familiar with Islander ways.' The authors of this publication note that in the past, consultation with Islanders was either non-existent or conducted in an ineffective way. Sen (2000) stated that extension and transfer of research information is critical to the future success of Torres Strait research.

In recognition of the importance of extension and communication, CRC Torres Strait funded research to develop protocols and guidelines for researchers working in Torres Strait (CRC Torres Strait Task T5.1). These guidelines will provide advice to researchers on ethical protocols and processes to follow, as well as culturally appropriate and effective methods of consultation, negotiation and communication. The specific objectives of the research task were to:

- o Develop culturally appropriate guidelines (protocols and processes) for researchers working in Torres Strait.
- o Identify culturally appropriate processes for consultation and negotiation with Torres Strait peoples on marine resource research and management issues.
- o Identify and document culturally appropriate communication procedures, media and styles to effectively convey outcomes of research to Torres Strait Islanders.

This report – *Guidelines for ethical and effective communication for researchers working in Torres Strait* describes this research and provides researchers and other people working with Torres Strait Islanders with guiding principles for ethical conduct as well as practical communication activities to aid them in their endeavours.

1.1 Island culture

Like other Indigenous communities around the world, the relationship between the Torres Strait Island people and their environment is 'a fundamental defining characteristic of indigenous identity' (Seebohm and Morvell 1998). The Torres Strait environment is dominated by the sea, and the link between land, sea and Ailan Kastom (Island Custom) defines the culture.

The islands of Torres Strait formed as the oceans rose around 8000 years ago and submerged the land bridge between Cape York in Australia and Papua New Guinea. The shallow Torres Strait marine environment is influenced by complex tidal and seasonal currents as well as oceanic currents from the Coral Sea. The marine environment is dominated by coral reefs, mangroves and sea grass meadows. This diversity of habitats is matched by the immense variety of plants and animals that inhabit the area.

Torres Strait Islanders are of Melanesian origin, with their own distinct identity, history and culture. Traditional life has been influenced by the historic connections and trade with Papua New Guinea in the north, and Aboriginal communities on the Near Western Islands and Cape York (mainland Australia) to the south (Johannes and MacFarlane 1991).

The three main traditional spoken languages reflect these connections:



Coral Bleaching by Mary Tolputt. Reproduced with permission of the artist.

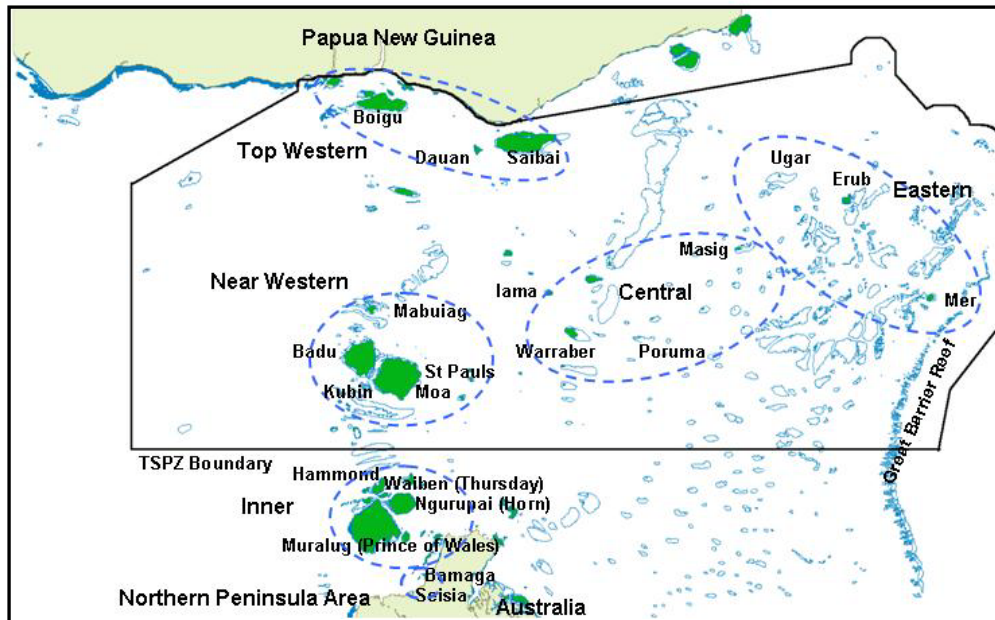
- o Meriam Mir, spoken in the Eastern Torres Strait (see figure below), originates from New Guinea;
- o Kala Lagaw Ya, spoken in the Central and Western Torres Strait, is primarily Aboriginal in structure with Melanesian elements;
- o Kalaw Kawaw Ya, a dialect of Kala Lagaw Ya, is spoken in the Top Western communities of Saibai, Boigu and Dauan. Papuan New Guineans in these areas will speak in Kiwai, a Papuan language.



Torres Strait Islanders traditionally have used the trumpet shell or 'Bu' to alert and summon Islanders to important gatherings and events.

- o Creole, regarded as the lingua franca of the region, originates from 'Broken English', brought to Torres Strait by the South Sea Islanders in the late 19th century (DATSIP 2000a).

The region now includes 18 island communities – each with its own cultural identity and creation stories – with populations ranging from 55 to 1,631, and two mainland communities (TSRA 2004). Three quarters of the region’s population of 8,306 are Torres Strait Islander and Aboriginal people, or Papua New Guinean. Over 37,000 Islanders have moved away from the Strait, mostly to mainland Australia. This cultural diversity and geographic spread brings with it inherent difficulties in communicating to Torres Strait Islanders (Arthur 1990, 1999).



Map of Torres Strait showing Island groups and approximate boundary of the Torres Strait Protected Zone (TSPZ).

Torres Strait Islanders have been custodians of their traditional sea area for centuries and local knowledge of marine resources has been continuous and evolving (Mulrennen 2002). Complex systems of customary marine tenure, which not only included ‘home reefs’ but extend to include reefs, submerged banks and islands beyond the home reef, play a valuable role in traditional fisheries management (Johannes and MacFarlane 1991). The climatic patterns in Torres Strait have also played a major role in limiting exploitation of natural marine resources in the area.

The arrival of Spanish adventurer Luis Baez de Torres in 1606 who named the area ‘Torres Strait’, and ensuing charting by Cook, Bligh and Flinders, paved the way for further contact. Subsequent exploitation of resources by westerners from the mid 1800s, including the bêche-de-mer and pearl shell industries, has resulted in increased pressure on the natural resources in Torres Strait. A variety of environmental management issues in Torres Strait now pose threats, including conflict between customary and commercial fisheries, risk of shipping accidents, conservation of threatened species, potential consequences of global warming, and heavy metal concentrations in some seafood (Seeböhm and Morvell 1998). To mitigate these threats, formalised management systems have been put in place to ensure the continued protection of the Torres Strait marine environment in which Torres Strait Islanders play a key role. Linked with this process is the need for more dedicated research and monitoring in a wide range of areas to provide the scientific information to guide management decision-making.

1.2 History of research in Torres Strait

Alfred Haddon visited Torres Strait many times in the 1800's and recorded fish species harvested, traditional fishing equipment and methods, and areas of customary marine tenure (Johannes and MacFarlane 1991). In more recent times biological research in Torres Strait has concentrated on important fisheries including bêche-de-mer, rock lobster, prawns and finfish (Prescott et al. 1986, Poiner and Harris 1991, Pitcher et al. 1992, Harris et al. 1994, Long et al. 1996, Skewes et al. 1997, Dennis et al. 1997) as well as traditional fishing for turtle and dugong (Miller and Limpus 1990, Smith and Marsh 1990, Marsh et al. 1997). Wolanski (1986) also investigated the hydrodynamic aspects of the area. Much of this early work is collated on a DVD library by the Australian Fisheries Management Authority (Taranto and Pitcher, 2004).

Despite the immense value of this previous work, the full benefit to Torres Strait Islanders has not been realised. Possible explanations for this are: the outwardly weak linkages of research priorities to identified management needs; little involvement by Torres Strait Islanders in setting these priorities; and ineffective extension of research information to Islanders (Sen 2000). Sen (2000) identified challenges to future fisheries research, including the need for greater consultation and information dissemination in research and management activities, to enable Islanders to make informed choices. Sen (2000) also noted that past research had not been effectively communicated to stakeholders.

Kwan et al. (2001) and the Torres Strait NRM Reference Group (2005) made similar observations and emphasised an urgent need for measures to build local capacity to enable Torres Strait Islanders to manage their natural resources.

1.3 Cross-cultural communication

Traditionally, Indigenous knowledge is transferred orally, through experience, storytelling, song, dance and art. Different communities will have their own stories and local traditions. In contrast, non-Indigenous communication tends to be based on the written or recorded word, and more recently through the electronic media. These differences highlight the challenge for communication between the cultures. Good cross-cultural communication requires a sound understanding of the culture and social system being communicated to, as well as how the cultures differ.

In a cross-cultural workshop conducted by the CRC for Aboriginal and Tropical Health, lack of attention to communication was identified as a major barrier to successful research (CRCATH 2002).

Randall Owens (left) and Chicka Turner (right) from GBRMPA discuss 'Different Ways of Knowing' at a workshop.



Impediments to successful communication about research with Indigenous people (based on input from Indigenous and non-Indigenous people) were identified, including:

- o difficulties in bridging cross-cultural divides, prejudice, discrimination and racism;
- o insufficient time, resources and effort allocated to communication about research;
- o lack of understanding of the first language of Indigenous communities;
- o lack of recognition by the scientific communities of the difficulties in communicating well in cross-cultural contexts and hence a de-valuing of this effort; and
- o poor understanding of relationships within and between Indigenous families (CRCATH 2002).

Keys to successful (cross-cultural) communication about research identified at the same workshop included:

- o establishing relationships and allowing long lead-up time for discussions,
- o accepting guidance from Indigenous people on how best to communicate about research, working closely with respected people from the community,
- o accepting that time has a different meaning to Indigenous people, and working within their time parameters,
- o disseminating project information to the community, in language,
- o flexibility with research information formats – visuals, videos, audio, drawings, and
- o providing tangible benefit to the community – not just research results (CRCATH 2002).

There are aspects of Aboriginal and Torres Strait Island culture that non-Indigenous researchers may feel uncomfortable with, such as hunting and traditional food preparation practices. While working with the Hope Vale Aboriginal Community to prepare a turtle and dugong hunting management plan, researcher Melissa Nursey-Bray had to come to terms with the practice of butchering. 'It was pointed out to me that within Indigenous culture.... It is only through live butchering that the turtle's spirit, through its blood, can be returned to the ancestors and the sea' (Nursey-Bray 2003). It is essential that researchers respect that different cultures have different views.

1.3.1 Your way and my way of talking

There are fundamental differences in the way that Indigenous and non-Indigenous Australians speak with each other. Linguists have distinguished between the Anglo-Australian 'dyadic' oral communication and the Indigenous 'communal' communication (Walsh 1997). The dyadic, non-Indigenous way is to talk in pairs or directly to an audience, face-to-face, with eye contact. Talking is in discreet blocks, where control is with the speaker. In contrast, traditional Indigenous communication is more open and continuous, with little eye contact, and control is with the hearer. This sort of open communication may seem out of context or unfinished to Anglo Australians.

Likewise, silence is incorporated into Indigenous communication - almost conversational in nature (Ngarritjan-Kessarar 1997). Non-Indigenous people feel uncomfortable with silence and see it as unproductive. During discussions Indigenous people may delay expressing an opinion – listening to others before voicing their views. The answer may not be given until another day.

Body language and gestures are frequently used by Indigenous people to communicate with each other. These may go unnoticed, or be misinterpreted by non-Indigenous participants in a meeting. In fact, the body language may be inconsistent with the spoken response. 'Yes' may mean 'I have heard you' rather than 'I agree with you.' Where a verbal 'Yes' is given in response to a non-Indigenous request and the accompanying body language suggests 'No', it would be wise to seek further advice rather than make assumptions.



Hats and baskets woven from palm fronds by Torres Strait Islanders

The complex social hierarchies of Indigenous cultures influence communication, and need to be understood by non-Indigenous people. It is important for researchers to be mindful of the gender, age and origin of the people they are talking to (Anderson 1992). Elders and respected community members are expected to have their say before others. In some Indigenous communities certain family members cannot address each other. Traditional rivalries between clan groups may mean

that representatives from both groups would not attend the same meeting. In a public meeting researchers may expect to see more men than women, and women will generally play a less active role (von Sturmer 1981). Indigenous culture also places gender constraints on some topics of conversation – there are aspects of men's business that women don't talk about. For example, female non-Indigenous researchers working on dugong have to be aware that data may be compromised by such cultural protocols. Likewise, issues of women's business need to be understood and respected.

The traditional Torres Strait society is patriarchal and most community leaders are men, which may constrain communication with female researchers and limit opportunities to engage with women. Female researchers should also be aware that Indigenous women may be suspicious of them conversing with their male family members.

1.3.2 Different ways of doing research

'Indigenous science is almost always marginalised or suppressed by Western science. It's often not recognised, it's considered to be myth or superstition or it's not respected. It's described as primitive..... Or lastly, it's sometimes colonised. The data from indigenous science is considered to be only that, raw data to be shaped into a real scientific approach through Western science.'

Polly Walker (2005).

The non-Indigenous way of natural resource management and research has many bureaucratic procedures, including appointment of advisory committees made up of individuals representing the interests of a broader group of people, or even a whole community. Non-Indigenous people are used to this way of doing business, but it may not be relevant to Island life. A single Indigenous person cannot speak for other people and other communities (von Sturmer 1981).

A research project by the multimedia unit at the CRC for Aboriginal and Tropical Health (Thomsen 2003) compared the 'inclusive' research approach of Indigenous communities with the 'individual centred' approach of non-Indigenous scientists (see Table 1). There is a culture of sharing in Aboriginal and Torres Strait Island communities where people belong to groups and traditionally needed to collaborate to survive. In contrast, non-Indigenous researchers investigating natural sciences gather quantitative data rather than traditional knowledge and are often hesitant to share research findings before comprehensive analysis has been completed.

Table 1: The contrasting approaches to research by Indigenous and non-Indigenous participants. Summarised from Thomsen (2003).

Inclusive behaviour – The Indigenous way	Individual-centred behaviour – A non-indigenous way
Collective effort, 'collaborate or die' approach, partnership	Individual effort; researcher distinct from 'researched'
Community benefit	Personal prestige
Build relationships with Aboriginal people and communities	Use research to determine relationships with Aboriginal people and communities
Country and connections	Visitors
Communication (listening and talking) before, during, after, open-ended	Telling, presenting to, only hearing what fits the research agenda
Open acknowledgement of intellectual contribution and intellectual property	Devalue Aboriginal intellectual contribution and creativity
Inclusive – all partners involved from outset	Exclusive, control
Respect, appreciation and acknowledgement	Take for granted
Negotiation	Consultation

Indigenous knowledge is often not well respected by Western scientists (Walker 2005). In a Maori context, Tuhiwai Smith (1999) refers to the sense of innate superiority conveyed by Western researchers in their approach to Indigenous people, and a desire to bring progress into their lives: 'Research through imperial eyes describes an approach which assumes that Western ideas about the most fundamental things are the only possible ideas to hold'. From an Indigenous perspective this type of research 'steals knowledge from others and then uses it to benefit the people who stole it' (Tuhiwai Smith 1999).

These conflicting approaches to research and science are reflected in the way in which researchers communicate their research with others. Non-Indigenous



Torres Strait Island fish spears or 'wapil kluk'.

researchers tend to be protective of their research findings until they have published. Their success is measured by reviewed publications in respected journals - careers depend on this. In a competitive research environment communication of research results to people other than peers is often given low priority and few researchers have formal training in this area. Most Cooperative Research Centres have dedicated communication and extension staff to do this job, but in an environment such as Torres Strait, it is important that the scientists themselves develop the skills to engage and communicate with the local communities.

1.4 A cultural shift

Researchers working in Torres Strait face numerous communication challenges based on: cultural complexity; the different thinking of scientists and non-scientists; the Indigenous versus non-Indigenous approach to research and resource management; the diversity of Torres Strait Island communities; and the established institutional communication processes.

In this context of complex, mixed cultures – Indigenous and non-Indigenous, different Island groups, scientist and non-scientist - participation in research in Torres Strait requires researchers to take a new approach to their work with a greater emphasis on community engagement and cross-cultural communication than most are used to. Researchers will need to consider this at all stages of the research process including: identifying local issues and research needs of the community, prioritising research areas; developing proposals; collecting and analysing data; reporting and implementing outcomes. For researchers unfamiliar with the culture, politics and characteristics of Torres Strait this report will act as an important guide to them in their research activities.

2 METHODS

Many of the methods used in this research project were informal, necessitated by the often opportunistic nature of interactions with the various people who contributed to the research. In general the research activities fell into seven main methods described below.

2.1 Advisory group

An advisory/reference group of representatives from CRC Torres Strait members was established to provide advice. The main means of communication between the authors and the reference group members was phone, opportunistic meetings and email. This group included representatives from CRC Torres Strait, TSRA, ICC, AFMA, DPI&F and JCU.

2.2 Review of existing principles and protocols

A literature review of existing principles, protocols and guidelines for researchers and others working with Indigenous communities in Australia and overseas was conducted. This included guidelines or principles for consultation, negotiation and communication with Indigenous groups, especially Torres Strait Islanders.

Researchers and other government and non-government workers who have experience in conducting research integrating Indigenous groups were also consulted. This built on work already conducted by CRC Reef's Indigenous Working Group that has been developing guidelines for CRC Reef researchers working with Indigenous groups.

2.3 Review of current communication methods and materials

Current methods and materials for extension and communication of research aimed at Indigenous communities in Australia and overseas were reviewed and evaluated. Consultation with TSRA, ICC, Torres Strait Island communities, AFMA, DPI&F, Australian Quarantine and Inspection Service (AQIS) and researchers identified currently used and preferred communication processes/media/styles. This included delivery of non-scientific messages and information.

2.4 Review of CRC Torres Strait extension plans

CRC Torres Strait researchers were consulted about their extension plans and requirements and to seek advice from those with experience in communicating with Indigenous people. Information from this task was integrated with other CRC Torres Strait research tasks where possible.

2.5 Meetings

Task researchers visited and met with representatives of the main Island communities in Torres Strait to build on the information derived from the methods detailed above. These visits identified issues related to preferred communication and extension styles, methods for consultation, negotiation, level of involvement in research projects and differences in approaches preferred by the various Island communities.

2.6 Observations

Where possible, task researchers travelled with other CRC Torres Strait researchers as observers on field trips, workshops or training sessions to review and assess real examples of communication, extension and consultation skills and materials in a practical setting. Activities assessed by this method included:

- o Field trips by researchers investigating the Commercial Islander Reef Line Fishery on Mer (Murray), Masig (Yorke) and Erub (Darnley) Islands (CRC TS Task T1.1) and Sponge Aquaculture at Erub Island (CRC TS Task T1.6a).
- o School activities based on sponges for the Sponge Aquaculture Project (CRC TS Task T1.6a).
- o Seagrass Watch training activities at Thursday Island High School (2004).
- o Manning display at 2004 Torres Strait Cultural Festival held at Thursday Island.
- o Thursday Island Port surveys for introduced marine pests (CRC TS Task T3.2) in 2004.
- o Representative meeting of CRC Torres Strait at the CRC Torres Strait Induction Meeting (2003), CRC Torres Strait Review Meeting (March 2005) and North Queensland Indigenous Aquaculture Working Group (June 2005).

2.7 Workshop



Annabel Jones discusses research results at a workshop.

A workshop on Thursday Island with representatives of Torres Strait Islanders, managers and scientists was facilitated to discuss core principles of communication, consultation and negotiation that may be appropriate for researchers working in Torres Strait, and effective media.

Participants discussed suggested principles and recommendations for effective communication processes, and refined these where appropriate. Novel ideas and suggested modifications to existing methods were also discussed. Participants also discussed differences in protocols preferred by various Torres Strait communities.

3 PROTOCOLS AND GUIDELINES

*'Protocol simply means following the customs and lores
of the people or community you are working with
and communicating in a way that is relevant to them'*

DATSIP (2000b)

3.1 An epidemic of consultation

Researchers and natural resource managers working with Torres Strait Islander and Aboriginal people need to adopt a sensitive approach to engagement. Consultation between cultures is a complex process that can be influenced by social, cultural, historical and political considerations (Birkhead et al. 1996).

Significant work has been done on identifying protocols for cross-cultural consultation and communication to help people work together more effectively. The 1990s saw a wave of protocol development and Indigenous consultation 'sweeping like an epidemic across Australia' (Anderson 1992). 'Resource managers, research scientists (etc) ... all became aware of the need and requirement to consult with Aboriginal and Islander communities and to follow protocols.' As a result, communities were being overwhelmed and overburdened with consultation on different projects, often by government employees working to timelines which were unrealistic for the communities (Birkhead et al. 1996). Failure to provide feedback following visits contributed to mistrust of 'Whitefellas'. Some Indigenous communities became suspicious of visiting scientists and resource managers, and had difficulty identifying the benefit of the research to the community.

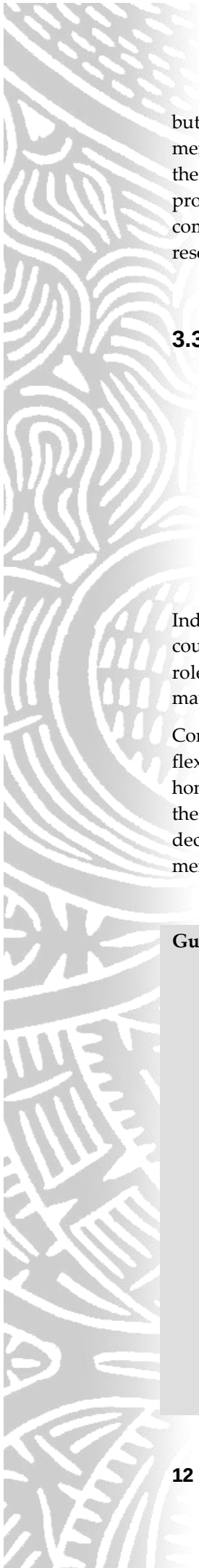
3.2 A framework for engagement

The 'epidemic of consultation' has delivered guidelines from many different environmental management agencies, Indigenous health organisations, research institutions, industry bodies and media organisations (e.g. ASTEC 1998, AIATSIS 2000, DATSIP 2000a & b, University of Victoria 2003, CINCRM 2003, NHMRC 2003, ABC 2005, and WTMA 2005) to guide Indigenous engagement.

A review of protocols and guidelines from 30 different organizations, some with interest in Torres Strait, identified common themes: consultation, negotiation and mutual understanding; respect, recognition and involvement; benefits, outcomes and agreements; and cultural and intellectual property. A compilation of the protocols and guidelines reviewed is presented below using the Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS) 'Guidelines for Ethical Research in Indigenous Studies' (2000) as a framework.¹

This summary is an important reference for anyone who is intending to conduct research with Aboriginal and Torres Strait Islander peoples on traditionally owned land and sea. The protocols and guidelines are not specific to work in Torres Strait,

¹ AIATSIS has not endorsed this modified format of their protocols and therefore takes no official responsibility for these guidelines.



but should help researchers working there to engage effectively with community members, and to share the benefits of the research outcomes. In order to apply these guidelines additional time needs to be allowed at all stages of the research process and budgeted accordingly. These guidelines should be additional to compulsory research ethics approvals sought by researchers from individual research institutions.

3.3 Guidelines for researchers engaging with Indigenous people

'Consultation, negotiation and free and informed consent are the foundations of research with or about Indigenous peoples. The responsibility for consultation is ongoing.'
AIATSIS (2000).

3.3.1 Consultation, negotiation and mutual understanding

Indigenous peoples have inherited obligations to look after their land and sea country, their community and their heritage. They must, therefore, have an active role in decision-making in relation to research 'on country', particularly where they may be affected by the research.

Consultation, negotiation and communication should be respectful, equitable and flexible. The aims and research methods proposed must be explained clearly and honestly. Indigenous people must be given adequate opportunity to understand the implications of the research proposed on their country and to make informed decisions about the project. The process may take time while the community members discuss the proposal between themselves.

Guidelines for researchers (modified from AIATSIS, 2000)

- o Identify and contact Indigenous people with rights and interests in the area where the research is proposed. Recognise that not all Indigenous people will be authorised to speak for a place. (The right people for the right country).
- o Identify and adhere to any process or protocols that Indigenous people have established for consultation – be aware that protocols may differ between communities.
- o Establish a mutually agreed negotiation process – face-to-face meetings are desirable.
- o Allow sufficient time for the consultation/negotiation process – the wider Indigenous community may need time to consider and discuss a proposed research project and its implications. Be prepared for time delays.
- o Ensure that there is mutual understanding and agreement about the proposed research, and any social and environmental risk associated with the research.

- o Agree on the way of conducting the research, including the timing and phasing of the project. Be flexible and willing to renegotiate if necessary.
- o Disclose to Indigenous people how the results might be used, who will own the outcomes and who will benefit – use appropriate language to aid understanding.
- o Where appropriate, provide Aboriginal and Torres Strait Islander peoples with the opportunity to participate actively in all phases of research from inception to completion, with opportunities for relevant training.
- o Clearly identify what participation in the study will involve for the individual and the community.

3.3.2 Respect, recognition and involvement

The term ‘respect’ is commonly used by Indigenous people to describe the type of relationship they would like to have with others (i.e. demonstrating consideration or appreciation). Torres Strait Islanders and Aboriginal Australians have distinctive cultural identities, histories and perspectives, based on the preservation of customs, laws and language, and strong connections to land and sea. The diversity between cultures and communities should be recognised and respected – each community is unique, and there will be different values and views within a community.

When planning and conducting research in Torres Strait, researchers should develop a reasonable knowledge and appreciation of Torres Strait Islander custom and history. It is important to acknowledge and accept that there are cultural differences in the way people relate to the natural environment, and in the way they communicate with each other (‘my way’ and ‘your way’), which may be reflected in traditional laws. The differences must be accommodated and respected by visitors to another cultural environment.

With inherited rights and interests in land and sea, Aboriginal and Torres Strait Islander peoples can make a significant contribution to management of natural and cultural heritage and should be given the opportunity to be involved in research that affects them, and to determine their desired level of involvement.

Guidelines for researchers (modified from AIATSIS 2000, DATSIP 2000a)

- o Develop an understanding of the different cultures of the Indigenous communities being worked with (e.g. through reading, cultural awareness activities, personal contact and pilot visits).
- o Be helpful, friendly and courteous (known as ‘Good Pasin’ in Torres Strait).
- o Respect the diversity of viewpoints, values and customs held by different Aboriginal and Torres Strait Islander peoples – do not extrapolate what is known of one community to another.
- o Recognise the respected knowledge of particular community members and involve such persons where appropriate.

- o Identify appropriate persons who are responsible for the knowledge sought, and obtain their informed consent for use of the knowledge.
- o Encourage and support community members' involvement in research as advisors, collaborators or assistants. Be prepared to pay those contributing to the research.

3.3.3 Benefits, outcomes and agreements

The negotiation process should include discussion of the potential research outcomes, including the likely benefits to parties, and even the possible impacts (eg. changes to management of traditional fisheries). It should also identify where



Coral Bleaching by Susan Obah.
Reproduced with permission of
the artist.

there are competing interests in the research results (eg. managers versus community). There should be mutual agreement on the use of the research outcomes, and the respective roles of all participants, at the outset of the research. Where appropriate, Indigenous people should have the opportunity to participate in all phases of the research. Their contribution should be acknowledged and all parties should benefit. Special agreements should be negotiated on the use of traditional knowledge (see Section 3.3.4).

Guidelines for researchers (modified from AIATSIS 2000)

- o Ascertain from the outset the research needs of the community and, where possible, incorporate this into the research project outcomes.
- o Discuss openly and negotiate with the community potential benefits and risks. Ensure that there is a clear mutual understanding of these. Do not raise unrealistic expectations about benefits of the research for the community. Communicate how the researchers will benefit as well.
- o Agree at the outset on the use of research results, including ownership of data, clearly identifying contractual obligations that researchers may have entered into, including intellectual property. Agree on the individual rights of researchers and Indigenous participants, and collective rights of Indigenous community groups, and how the results will be fed back to relevant people. Enter into negotiated confidentiality agreements if possible.
- o Seek mutual agreement of the use of, and access to, traditional knowledge and research results. All parties should benefit.
- o Make the research results available in accessible and relevant formats.
- o Provide adequate opportunity for the community to discuss the results of the research before public release.

3.3.4 Cultural and intellectual property

Traditional knowledge can make a significant contribution to the research process. Traditional knowledge in this context refers to cultural and natural resource information passed from generation to generation by Indigenous people, such as information on animal occurrence and behaviour, hunting, fishing, climate and medicinal uses. Indigenous Australians see this knowledge as their traditional knowledge and they have a fundamental right to exert control over it. Researchers must respect this. In general, however, there is a poor understanding by both researchers and Indigenous peoples as to what intellectual property is and means to scientific research with respect to traditional knowledge.

Researchers are encouraged to recognise the value of traditional knowledge, but it is important that it is used only with appropriate permission and on agreed terms. Certain Indigenous knowledge is collectively owned so it may be necessary to seek permission at different levels.

It is a fundamental principle of research to acknowledge the sources of information and those who have contributed to the research. If traditional knowledge has contributed significantly to the research this should be reflected in the research reporting, and appropriate benefit-sharing arrangements negotiated such as shared authorship or vetting of publications prior to release.

Guidelines for researchers (modified from AIATSIS 2000)

- o Respect the cultural rights of Indigenous people in relation to knowledge and cultural materials, including the right to maintain secrecy of Indigenous knowledge and practices.
- o Where the knowledge of an individual or group has contributed to the research, give proper credit to all contributors in the reporting of the research.
- o Negotiate before research begins where the results will be housed and who will have access to it.
- o Show or distribute restricted material only with the express permission of those who provided or are responsible for it.
- o Some information will be culturally sensitive – be aware of this and respect the wishes of the community regarding use of this material.

3.4 Case-by-case consultation

There are limitations to the use of a generalised set of consultation protocols for researchers working in a dynamic environment such as Torres Strait, in different situations and communities. As discussed by Birckhead et al. (1996), the many excellent guidelines already developed are helpful references for facilitating the consultation process with Torres Strait Islanders and Aboriginal people, and are useful for promoting cultural awareness. However, researchers working in Torres Strait also need to consider potential issues and sensitivities related to particular research, and be aware of any protocols specific to individual communities.

In many cases, individual island communities will not have considered or developed protocols for the way they would like to be approached by researchers



(T. Nakata, CRC Torres Strait, pers comm.). However, Island communities will most likely have thoughts about how they would like visiting researchers to conduct themselves. There will be differences of opinion between different members of Island communities and councils, depending on personality, local issues and events, and previous experiences with researchers. Community attitudes to researchers may also change during the period of a research project as a result of community dynamics. It is, therefore, every researcher's responsibility to become familiar with the community issues and requirements before a visit, and be alert and responsive to change and unexpected events, such as a death in the community. In view of these sensitivities and constant change in Torres Strait, each research visit should be assessed on a case-by-case basis, based on observance of the key protocols outlined above (B. O'Connor, TSRA, pers. comm.).

Observance of protocols needs to be genuine and honest, based on understanding and respect of different cultures. This takes time, and must be built into every visit to Torres Strait, and when working in partnership with Torres Strait Islanders. For some scientists it will mean changes in the way research is done, and the way the outcomes are communicated. It will also demand more time (and therefore funding) to allow the researcher to learn about the culture and to build working relationships. It means accepting different ways of doing things, and greater flexibility in a research program than many are used to.

The following section provides a range of tools and tips to guide researchers in this approach.

4 COMMUNICATION TOOLBOX

‘To enable all stakeholders to make informed choices, consultation and information dissemination will become an increasingly important component in research and management activities.’

Sen (2000)

The principles, protocols and guidelines presented in the previous chapter provide a framework for researchers working in Torres Strait. To assist researchers to operate within these principles and protocols, presented here is a collection of communication tools, processes and activities that may be useful in engaging and communication with Torres Strait Islanders.

A synopsis of these tools and their relevant strengths and weaknesses is collated in Table 2. This table serves as an accessible guide to communication processes that may be effective for research in Torres Strait. Additional information on each tool, with case study examples to demonstrate potential uses, is provided in the subsequent sections with the relevant page numbers provided in the table.

The tools described in this chapter and their suggested uses are meant as a guide only. Researchers are encouraged to consider a variety of communication methods to fulfil their communication goals. The tools need to be individually tailored and modified to suit particular situations as identified in the CRC Coastal ‘Citizen Science Toolbox’ (CRC Coastal 2005), an excellent resource aimed at linking communities, scientists and decision-makers. There are many more tools than those described here and researchers are encouraged to refer to other useful references such as Walsh and Mitchell (2002) and Aslin and Brown (2004).

4.1 Communication toolkit comparison

Table 2: Communication Toolkit Comparison: Relationship Building (refer to page 27)

Tools/techniques	Skills needed	Strengths	Weaknesses	Cost
Cultural awareness    	Interpersonal skills. Willingness to appreciate culture.	Builds relationships. Researchers can gain better insight to relevant issues.	Requires time.	Main costs is from travel to Torres Strait. \$1000's.
Personal contact     	Good understanding of Ailan Kastom & Good Pasin. Interpersonal skills.	Builds relationships, trust and respect. Researchers can gain better insight to relevant issues.	Requires regular contact to be effective. Can be time consuming.	Main costs is for travel to Torres Strait. \$1000's.

Key to symbols

Difficulty



Easy



Not-so-easy



Difficult

Number of people reached



Few



Some



Many

Time required



Little



Moderate



Lots

Costs



Low <\$1000



Medium >\$1000



High >\$10000

Relationship Building (refer to page 27)

Tools/techniques	Skills needed	Strengths	Weaknesses	Cost
Pre-visit procedures 	Knowledge of relevant protocols and procedures. Organisational skills.	Builds relationships. Gives opportunity for researchers to be recognised in community and starts to build trust and respect. Provides opportunity for synergistic interactions with other researchers.	Requires good organisational skills to prepare in time for visit. Need to know the right people to contact	Minimal.
Information contacts 	Communication and interpersonal skills. Knowledge of subject and issues.	Personalised. Interactive. Community engagement. Controlled information flow. Identified point of contact. Trust building.	May feedback 'filtered' information. May be low return for high input.	High costs if salary and operational costs are required.
Gifts 	Knowledge of appropriate gifts.	Gives something back. Builds relationships. Provides a lasting reminder of research.	Can cause competition between individuals -need to make sure you have enough gifts for everyone. Can be costly.	Medium to high depending on what sort of gifts you purchase and how many. \$100s - \$1000's.

Meetings and Workshops (refer to page 37)

Tools/techniques	Skills needed	Strengths	Weaknesses	Cost
Meetings 	Oral communication. Computer skills. Organisation and planning.	Can be personalised and interactive. Information disseminated widely. People can attend in social groups. Meetings can be held on home-ground of interest group. Can raise awareness of issues.	Potential for conflict and domination by vocal group (public meetings). May not reach consensus. Can be labour-intensive to organise. Some people may feel unable to speak up.	Costs depend on level of technical organisation. Can be high if travel costs are required for participants. Medium to high. \$100's- \$1000's.
Workshops 	Facilitation skills. Oral communication. Organisation and planning.	Fosters small group and one-on-one communication. Interactive and engaging. Opportunity for input to problem-solving and on-spot feedback.	Relatively costly. Location important. Time-consuming. Some people may feel unable to speak up.	Costs depend on level of technical organisation. Can be high if travel costs are required for participants. Medium to very high. \$1,000 - \$10,000.
Interactive activities 	Imagination. Communication. Design.	Can appeal to wide range of audience including younger people. Can explain complex scientific concepts. Can engage Indigenous audience that may not otherwise participate.	Some people may be unwilling to participate in front of others. Requires imagination from researcher. Requires excellent communication skills from researchers.	Depending on materials required, but generally fairly low cost. <100's.

Printed Products (refer to page 53)

Tools/techniques	Skills needed	Strengths	Weaknesses	Cost
Leaflets 	Writing. Editing. Design. Layout.	Can target specific audiences. Can disperse widely. Can be distributed as PDF File on internet. Does not require researcher to communicate information.	Takes time to produce. Not interactive. Audience requires literacy skills. Must compete with other materials. Information cannot be updated easily.	Varies greatly with style and medium, numbers of colours and number required etc. Costs can be reduced if researcher has ability to do design, layout and printing in-house. \$100's.
Technical Reports 	Technical knowledge and understanding. Writing. Editing.	Can target specific audiences. Can disperse widely. Does not require researcher to communicate information.	Not attractive to general public. Difficult for general public to understand. Not interactive. Impersonal. Requires literacy skills for audience. Can take a lot of time to produce.	Varies depending on number produced, size and if colour pages are included. \$100's to \$1000's.
Brochures 	Writing. Editing. Design. Layout. Publishing.	Very attractive. Can target specific audiences. Can disperse widely. Can be distributed as PDF File on internet. Does not require researcher to communicate information.	Takes time and special skills to produce. Not interactive. Audience requires literacy skills. Must compete with other materials. Information cannot be updated easily.	Varies greatly with style and medium, numbers of colours and number required etc. Costs can be reduced if researcher has ability to do design, layout and printing in-house. \$100's to \$1000's.

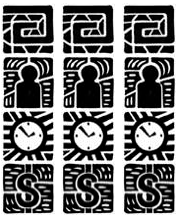
Printed Products (refer to page 53)

Tools/techniques	Skills needed	Strengths	Weaknesses	Cost
ID Guides 	Writing. Editing. Design. Layout. Publishing.	Very attractive. Can target specific audiences. Can disperse widely. Does not require researcher to communicate information.	Takes time and special skills to produce. Not interactive. Impersonal. Information cannot be updated easily.	Costs can be very high if engaging professional graphics artists to produce and if special materials are used. Can be fairly cost effective if layout etc is completed in-house. \$100-\$1000's.
Posters 	Writing. Editing. Design. Layout. Publishing.	Very attractive. Can target specific audiences. Can disperse widely. Can be distributed as PDF File on internet. Does not require researcher to communicate information. Delivers simple messages easily.	Takes time and special skills to produce. Not interactive. Impersonal. Information cannot be updated easily.	Costs can be very high if engaging professional graphics artists to produce and if special materials are used. Can be fairly cost effective if layout etc is completed in-house. \$100's.

Displays and exhibits (refer to page 67)

Displays 	Organisation. Design. Communication.	Can target specific audiences. Can reach a large audience. Interactive. Allows for different levels of information sharing.	Takes time and special skills to produce. Public must be motivated to view display. Can be costly. Needs appropriate space, time or event for viewing.	Costs can be very high if engaging professional graphics artists to produce and if special materials are used. \$100's - >\$10000.
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Visual Tools (refer to page 61)

Tools/techniques	Skills needed	Strengths	Weaknesses	Cost
Images and Audio 	Computer skills. Some design skills.	Visuals used in many forums can be very effective to engage Indigenous people. Digital images and audio can also be used as a data recording method.	Need to gain permission and ethics approval. Consider Indigenous culture with respect to images of sensitive nature or Indigenous people. May be limited by facilities in remote communities.	Relatively low costs for digital cameras. \$100 -\$1000.
Video Documentaries 	Video production. Communication. Organisation.	Appeals to widespread audience. Does not require literacy skills by audience.	Expensive to produce. Can't be updated easily. Need to gain permission and ethics approval. Consider Indigenous culture with respect to images of sensitive nature or Indigenous people. May be limited by facilities in remote communities.	Very high. \$10000's.
Diagrams and Illustrations 	Design. Layout.	Appeals to wide range of audience. Explain complex scientific concepts. Can engage Indigenous audience that may not otherwise participate. Can include traditional knowledge in research.	Requires special skills to produce.	May require travel costs to visit communities and discuss information to include in conceptual diagrams. Can be expensive to engage artists to professional produce illustrations. >1000's.

Visual Tools (refer to page 61)

Tools/techniques	Skills needed	Strengths	Weaknesses	Cost
Artwork 	Connections with artists. Communication with artists.	Can include traditional knowledge in research. Appealing to Indigenous audiences. Can explain complex scientific concepts.	Costly to buy artwork. Requires agreement with artist to reproduce the artwork.	Depends on artist and the intended use of the artwork. \$>100's.

Media (refer to page 68)

Radio 	Writing. Editing. Journalism experience. Media/interview skills.	Can target specific audiences. Wide coverage. Low cost.	Not interactive. Researcher has little control over final product.	Nil
Newspapers /newsletters 	Writing. Editing.	Can target specific audiences. Can disperse widely. Low cost. Uses existing distribution channels.	Researcher has little control over final product. Impersonal. Requires literacy skills for audience. Information must compete with other articles in newspaper or newsletter.	Usually cost-effective if utilising established newsletter and there are no charges made per insert.

Website and internet (refer to page 71)

Tools/techniques	Skills needed	Strengths	Weaknesses	Cost
Website 	Writing. Editing. Graphics. Computer and web-publishing.	Relatively easy for those with skills. Far-reaching – audience can access information readily, in own time, and at low cost. Can cater for different levels of information. Can be interactive.	Impersonal. Requires access to computer. Requires literacy and computer skills. High levels of competition. Information overload and poor design can constrain access.	If web designer is employed costs can be high. Also need to include costs of maintaining the web page. This can be low if using an established web page. Up to ~\$10,000's.

Education and Training (refer to page 72)

School activities 	Imagination. Communication. Knowledge of school curriculum.	Children are easy to engage. Appreciated by wider community. Potential for wider communication as children pass on information to family and friends.	Variation in response of children. Full benefits may not be realised immediately. Requires special skills and lots of energy.	Does not need to be high cost if reference material is sourced locally and with imagination. \$100's.
Drama & role-play 	Imagination. Communication.	Some people may be more willing to talk about imaginary situations. Learning by 'doing'.	Some people may be unwilling to act in front of others. Requires imagination from researcher. Requires excellent communication skills from researchers.	Low except for travel costs. Some props may be required. 100's

Capacity building (refer to page 74)

Tools/techniques	Skills needed	Strengths	Weaknesses	Cost
Community engagement 	Knowledge of community needs. Communication. Honesty and credibility.	Opportunity to build capacity in community. Relationship building. Researcher can gain good understanding of local issues.	Can take time and money for training. OH&S requirements may constrain level of engagement.	Low to medium. 100's-1000's
Employment 	Knowledge of community needs. Communication. Honesty and credibility.	Opportunity to build capacity in community. Provides employment. Relationship building. Researcher can gain good understanding of local issues.	OH&S requirements may constrain level of employment.	Medium to high depending on number of people to be employed and training required. 1000's-10000's

Advisory committees and task associates (refer to page 78)

Committees and Associates 	Communication. Organisational. Realistic time management. Knowledge of community.	Builds relationships. Builds trust and mutual understanding. Ensures relevance. Provides an avenue for communication.	Potential for delays if endorsement from committee is required. May be difficult to get agreement from entire group. Must consider payment for Indigenous people to participate prior to meeting.	Low to medium depending on meeting and participation costs. 1000's
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4.2 Relationship building activities

It is essential that researchers recognise the importance of building relationships with Torres Strait Islanders. Without these relationships, many research projects will be ineffective and potentially fail. This is especially the case for research that requires any help or input from Islanders, but all researchers should consider relationship building as important. A genuine interest in people and relationships through personal contact is an essential part of gaining the trust of Torres Strait Islanders.

4.2.1 Cultural awareness

Newcomers to Torres Strait should learn about the culture before starting any research in the area. Attending a cultural awareness course, such as those conducted by the School for Indigenous Australian Studies (SIAS) at James Cook University is recommended. A visit to the Gab Titui Cultural Centre should be a priority for researchers visiting Thursday Island.



Gab Titui Cultural Centre at Thursday Island.

Researchers should allow time before starting their research to get to know people and for them to get to know and trust the researcher. Researchers who do this are more likely to be welcomed into a community, with opportunities to communicate and conduct their research. By far the most effective way for researchers to gain awareness of the culture of individual Torres Strait Island communities is by visiting and spending time there.

Researchers should familiarise themselves with the appropriate ways to approach and communicate with the Torres Strait Islander people. A good guide is *Mina Mir Lo Ailan Mun: Proper communication with Torres Strait Islander people* produced by the Department of Aboriginal and Torres Strait Islander Policy which can be downloaded from their website (www.indigenous.qld.gov.au, DATSIP 2000a).

Cultural awareness guidelines for researchers

- o Do a cultural awareness course.
- o Visit the Gab Titui Cultural Centre at Thursday Island.
- o Researchers should visit and spend time in the community, allowing time to get to know people and for them to get to know the researcher.
- o Researchers should familiarise themselves with relevant protocols for conduct such as *Mina Mir Lo Ailan Mun: Proper communication with Torres Strait Islander people* (DATSIP 2000a).
- o Understand cultural and community dynamics – avoid stereotyping as each community is unique and each have their own individual needs.
- o Identify key stakeholders in the community including chairpersons, Councils members, Elders (men and women), and respected younger people.

4.2.2 Good Pasin

'Good Pasin: meaning good fashion, or behaving with a degree of sophistication and charm.'

DATSIP 2000a

Courtesy and kindness, known locally as 'Good Pasin', are highly valued, and reflect genuine respect for the beliefs and culture of the people. Good cross-cultural communication requires good interpersonal skills based on a genuine interest and respect. It is important that outsiders understand basic principals and 'ground rules' of Torres Strait prior to undertaking research within a community. Part of this process is learning about the different ways in which Torres Strait Islanders communicate. The difference in views of Islanders and non-Islanders means that there is a risk of misinterpretation of ideas, which can lead to misunderstanding and even resentment between parties (DATSIP 2000a). It is possible to make mistakes without realising it.

Good Pasin is an important consideration for researchers in a variety of areas. For example it is important that researchers respect local dress standards, exposing too much of the body may offend some people. Christian values are very important to many Torres Strait Islanders, so researcher's actions, such as accommodation arrangements for unmarried couples travelling together should be carefully considered. Some communities have policies on alcohol consumption and researchers should be aware of these and act appropriately. There may be areas that are of special significance to Islanders and non-Islanders should not go to these areas unless the appropriate permission has been given. It is best to ask.

Acknowledge caretakers

A Torres Strait Island belief is that caretakers look after uninhabited islands or sea country when the Traditional Owners are absent. Caretakers are not human and could appear as birds, sharks or even as the wind (J. Enaja, 4MW, pers. comm.). In some sea areas, or uninhabited islands of Torres Strait, it may be appropriate for researchers to acknowledge the caretakers and seek their permission to access the area. Researchers should seek advice from their hosts or Information Contacts (see section 4.2.4). The team leader can say: ...'I ask permission from the caretakers of this sea area. I am with (Research Agency) and I am here to.... I will be working here for X days.....' When leaving the area, it is polite to thank the caretakers, 'Thank you for looking after us today.'

Good Pasin guidelines for researchers (from DATSIP 2000a)

- o Build enduring relationships with Island Councils and community groups. Respect people's customs, culture, values, religion, dignity and feelings.
- o Be open, honest and sincere. Promise only what can be delivered.
- o Adopt a participatory role rather than a controlling role.
- o Researchers should accept they are in another cultural world and on another person's property.
- o Allow time for people to think about ideas and discuss them amongst themselves. Listen to people's views, take them seriously and keep in mind that their perspectives may differ from others.

- o Expect resistance to ideas and proposals that are incompatible with Torres Strait Island views.
- o When meeting someone, researchers should give their name and ask the other person for his/her name.
- o Say 'Hello', 'Good Morning' or 'Which way!' to anyone passed.
- o Do not walk between two people who are having a conversation.
- o Do not step over a person, or people's property, always walk around them.
- o Personal space is important. Researchers should not stand or sit too close to someone unless they have developed a rapport.
- o Acknowledge Caretakers in an appropriate manner.

4.2.3 Personal contact

Face-to-face contact in small groups is the best way to build personal relationships with people, but this takes time and may seem unproductive and costly to time and money-stretched researchers. Personal contact can happen at any level and by various means, and is an important part of the relationship building process.

Scientists may not be used to one-on-one communication of their research results with stakeholders and may not see this as an efficient use of their time. A CRC Torres Strait questionnaire conducted in early 2005 ('Are we reaching you?') evaluating communication products and processes for the research program asked researchers 'How do you plan to communicate results from your task?' Only one of the small group of respondents (N=9) indicated one-on-one contact with stakeholders, whereas most planned to use workshops, meetings and brochures.

The value of informal face-to-face information exchange cannot be overlooked, especially in an environment such as the Torres Strait. It could be as simple as a 'yarn under a tree', using the sand as a drawing board, and shells as props. This communication style has been very effective in Indigenous planning activities in northern Australia (Walsh and Mitchell 2002).

There is value in executives of research organisations escaping the boardroom and getting out to meet with the Island Chair and Councillors 'on country'. The Chairs are effectively the heads of their communities and deserve to be given the respect of one-on-one contact with their equivalent within the research body. Such an exercise would pave the way for future visits by researchers.

A few researchers have lived or worked regularly in the Torres Strait and have developed the respect and trust of community members. But most researchers live outside the Torres Strait, relying on costly scheduled visits to gather data, with little additional time allocated for public contact. Researchers are encouraged to recognise the importance of building 'contact time' into a research plan, with a degree of flexibility to accommodate unplanned opportunities to engage with Islanders, such as attendance at special celebrations in the community.

The long-term benefits of taking time to talk with Islanders and a flexible approach to contact opportunities are demonstrated in several past and current research tasks (see Case Studies 1 to 3). As part of getting to know people researchers will also need to be open and honest about their research – what questions are being asked in the research and how is this going to benefit the Island communities?

Where research visits are infrequent and of short duration, contact with Island associates can be maintained through regular phone calls. This has been effective in a reef line fishery research project (see Case Study 2) where researcher Cameron Murchie has maintained good working relationships with Community Fisheries Representatives and Council Chairs from Mer, Masig and Erub Islands through regular phone calls, with feedback on research progress, or simply to have a chat.

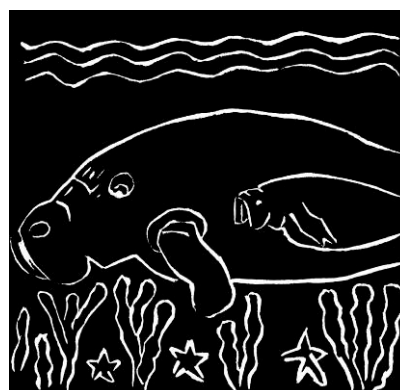
Scientists who live in a community while conducting their research are best placed to communicate the purpose of their research, and to involve Islanders in their work. This has worked successfully for social science and traditional fisheries projects and has enabled researchers to identify and resolve issues as they arise (see Case Study 1). There is a greater likelihood of acceptance into the community when a researcher engages in everyday life of the community and is known for qualities other than as a visiting scientist (see Case Study 3). However, for many researchers this is not possible.

Case Study 1: Community engagement.

Community monitoring of turtle and dugong. CRC TS Task T1.11

Task Leader: Jillian Grayson (JCU)

Due to gender sensitivities related to dugong hunting, Jillian Grayson had to work hard to build relationships with hunters. With assistance and advice from Information Contacts (see section 4.2.4), she initially engaged communities by sending letters to relevant Community Councils, Traditional Owners and Community fisheries representatives. She then met with these groups and traditional hunters to introduce the project and seek approval for the work and subsequently received letters of support were received from relevant parties.



Dugong and Calf by Wanee Laczic. Reproduced with permission of the artist.

The consultation process was interrupted in November 2004 by a Ministerial press release including Government concerns about the sustainability of the dugong and turtle fisheries in Torres Strait and announcement of a planned strategic assessment of these fisheries. The ensuing media attention greatly concerned dugong and turtle hunters in the participating communities and further consultation was necessary to clarify the role of researchers and rebuild trust.

It became clear to Jillian that the research project needed to be treated as a partnership, with equitable input from all parties, for it to work. Two aspects of the project have helped shape this partnership. First, a research memorandum of understanding (see chapter 7) outlining the information to be collected, how it is collected and how it is to be used, including the establishment of a reference group to provide advice and ensure information provided by communities is used properly. Second, several community members are employed on the project, which is integral to a successful community-based project. These initiatives have been vital in ensuring the continued progress of this important work.

Case Study 2: Building trust

Reef line fishery in eastern Torres Strait. CRC TS Task T1.1.

Researchers: Dr Ashley Williams and Cameron Murchie (CRC Reef/JCU).

During a visit to Mer Island in 2002 to discuss a potential new research project investigating the reef line fishery researchers Ashley Williams and Cameron Murchie encountered opposition. A representative group of fishers who opposed non-Islander fishing in Torres Strait proposed a ban on all fisheries research around Mer Island. However, based on relationships that had developed between Cameron and influential Mer Islanders, and a proven track record of ethical research activities, formal support for the research project was given by the Mer Island Council. This decision had subsequent effects on affiliated projects (such as CRC TS Task T1.8) that have been given support, however, if the decision had gone the other way the results may have been very different.



Ashley Williams and Cameron Murchie talk to fishermen on the beach at Mer Island

Case Study 3: Part of the community

Subsistence fishing in eastern Torres Strait. CRC TS Task T1.8.

Task Leader: Sara Busilacchi (JCU)

The research design necessitated longer stays at Mer, Erub and Masig Islands to collect data about subsistence fishing. During planning, Sara devoted her first visit to meeting people and developing relationships with the assistance of Toshi Nakata, and other researchers and key people at each community. Sara was introduced to key community members who helped her to plan her research. Subsequent research visits involved Sara living at each community for two weeks, often staying in the homes of welcoming Islanders.

On one research visit Sara was accompanied by her young son, a ready ice-breaker for family-oriented Islanders. Her Italian heritage also provided a focus of interest for the community. These more personal aspects of Sara's visits were an asset to her research as they provided a common topic from which to begin conversations with Islanders, and a basis for the relationship building process.



Sara collects data on fish taken to eat.



Personal contact guidelines for researchers

- o Maintain regular contact.
- o Listen without interrupting – don't pretend to listen.
- o Be attentive and patient while Islanders are talking.
- o Torres Strait Islanders may not be familiar with scientific and technical terms. Do not use jargon or expect prior knowledge.
- o Accept that silence is part of Islander communication – it may mean that people are listening or waiting for community support.
- o Some Traditional Elders may find direct eye contact disrespectful.
- o Avoid questions that require a 'yes' or 'no' answer. Some people will say yes or agree to keep researchers happy. Avoid asking too many questions.
- o Allow people time to think about an idea and talk about it amongst themselves before responding.
- o Show empathy and understanding.
- o Tell the truth at all times – failure to do so will destroy credibility.
- o Be sensitive to non-verbal communication cues. This can include Islander making light of a situation, or saying one thing, but meaning another.
- o When talking with Elders, it may be helpful to have a younger person in attendance to help with explanations.
- o To establish contact with women, work through the Elders and secretaries of the Island Councils.

4.2.4 Information Contacts

'Information Contacts' are people living in Torres Strait who have close associations with researchers and Torres Strait Islanders. They have a huge amount of experience and knowledge of Torres Strait, Torres Strait Islanders and communities. The role of an Information Contact is to provide guidance to researchers, assist in coordinating research work in Torres Strait and in fostering lasting and meaningful relationships between researchers and Torres Strait Islanders. They can also provide advice on best methods for communicating research information to Islanders, and in some cases may be the best people to do this.

Information Contacts include dedicated Liaison Officers (such as the CRC Torres Strait Marine Research Liaison Officer and Indigenous Aquaculture Liaison Officer), CRC Torres Strait Task Associates, Council Members, Church leaders, Traditional Owners and industry representatives (such as Community Fisher Representatives). These people play an essential role in the efficient running of research in Torres Strait.

For Information Contacts to carry out their roles effectively it is essential that researchers have ongoing dialogue with them. It is essential that Information Contacts know about research activities, and that researchers gain advice from Information Contacts on how to carry out these activities. There may be new developments in a particular community or other researchers or Government

workers visiting who Information Contacts will know about from their networks, that the researcher may be unaware of.



The two CRC Torres Strait Contact Officers are the Marine Research Liaison Officer, Toshi Nakata, and Indigenous Aquaculture Liaison Officer, Stanley Lui. Without these dedicated people it is quite possible that some CRC Torres Strait projects would have not progressed beyond the planning stage and others would not have been as productive as they have been.

CRC Torres Strait Marine Research
Liaison Officer Toshi Nakata.

Information Contacts guidelines for researchers

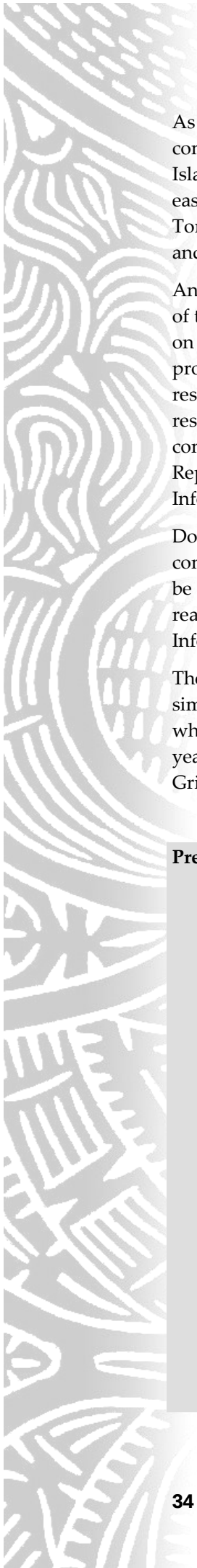
- o Identify Information Contacts who may be interested in the research.
- o Let Information Contacts know of planned research and communication activities.
- o Have ongoing dialogue with Information Contacts.

4.2.5 Pre-visit procedures: forms, letters and 'intended visit' flyers

Any visit to Torres Strait should be planned well in advance and appropriate notice given to the necessary people such as the Council, Traditional Owners, Church Leaders and/or fisher representatives. Coordinating visits through an Information Contact (see above) such as the CRC Torres Strait Marine Research Liaison Officer at the outset can be extremely beneficial to researchers and the Torres Strait community alike. Information Contacts can provide advice on a wealth of local issues that may not be apparent to the researcher.

CRC Torres Strait researchers are required to submit an 'intended visit form' detailing the proposed research activity and location prior to all visits to Torres Strait. The Information provided by researchers in these forms are used by the CRC Reef Communications Officers and the CRC Torres Strait Marine Research Liaison Officer to produce information flyers that are distributed to all communities in Torres Strait through the Councils and schools, as well as to TSRA, and are displayed in prominent locations in the community. These flyers are designed to provide advice to Islanders of upcoming visits by researchers as well as providing some details of what the visit is about. The flyers are also emailed to all CRC Torres Strait researchers to encourage synergistic links between research projects. The intended visit forms adopted by CRC Torres Strait are designed to be consistent with the TSRA pre-visit protocols for researchers.

The intended visit flyers have proven to be effective in letting Islanders know when research is being conducted in their area. The photos of researchers help Islanders identify the new faces in their community, and provides a point to begin conversations (see Case Study 4).



As these intended visit flyers are displayed at prominent positions in the community researchers should endeavour to make them attractive to Torres Strait Islanders. The more people who read them, the more effective they will be. Using easy to read text, suitable images of researchers doing their work (especially with Torres Strait Islanders) will encourage people to read the material. Often less text and more images is a good approach.

Any visit to a Torres Strait Island should also be preceded by a letter to the Chair of the relevant Island Council, seeking permission. Island Councils generally meet on a monthly basis, so a 6-week lead-time will give the Council time to discuss the proposed visit and respond if there are any problems. It is the researcher's responsibility to follow up the letter with a phone call to confirm approval for a research visit. In some cases researchers should also seek permission from other community members such as Traditional Owner Representatives and Fisheries Representatives, depending on the nature and sensitivity of the research. An Information Contact can provide advice on the best approach for each visit.

Do not assume that a single letter to the Chair will mean the information is communicated to all community members. The Chair of an Island community may be committed with duties away from the Island. A request to visit may not have reached other community members and it may pay to check with other Information Contacts who know the community.

The guidelines for researchers intending a visit to Torres Strait given below are similar to those adopted by Australian Quarantine Inspection Service (AQIS) staff who, although having been regular visitors to the Torres Strait Islands for many years, still consider it important to follow such protocols as a sign of respect (J. Grimshaw, AQIS, pers. comm.).

Pre-visit guidelines for researchers

- o Discuss details with an Information Contact prior to visiting Torres Strait and seek advice on who to contact at the community visited.
- o Read the protocols and guidelines in Chapter 3 of this report.
- o Researchers should familiarise themselves with any protocols specific to the Island community visited, and any potential sensitivities regarding the proposed research.
- o Send pre-visit letters to the Island Council Chair, Traditional Owners, Church leaders and/or other relevant representatives at least six weeks in advance of the proposed visit.
- o Follow-up with a phone call two weeks later, and one week prior to the visit, for confirmation.
- o If visiting the Island school, separate letters should be sent to the school Principal, with a follow-up phone call.
- o If possible conduct a radio interview with the Torres Strait Indigenous Media Association (TSIMA) (see Section 4.9.1).
- o Send a pre-visit information form to communities of Torres Strait at least three weeks prior to visiting.

Case Study 4: In search of marine pests

Introduced marine pests. CRC TS Task T3.2

Researchers: Dr Kerry Neil and Heath Stafford (DPI&F).



Surveying pylons at Thursday Island Port. Photo DPI&F

In March 2004, Kerry Neil and team members visited Thursday Island to conduct benthic surveys in the Port of Thursday Island to check for introduced marine plants and animals.

Four weeks prior to the trip an intended visit flyer was prepared, following the process outlined in the protocols for CRC Torres Strait researchers. With the help of Toshi Nakata (CRC TS Marine Research Liaison Officer), the flyer was distributed widely throughout Torres Strait and Thursday Island and displayed at prominent locations at the Port and Council offices. Kerry and team dedicated the first and last days of their trip to public contact including: visits to the TSRA, DPI&F and AFMA; a radio interview; and a 'meet and greet' walk around

the streets and port areas. The researchers were approached by several people in the community, who had seen and read the intended visit flyers and recognised Kerry.

On completing the fieldwork, Kerry again visited the TSRA office for a debrief meeting with TSRA and AFMA staff. Within a month of completing the research a one-page feedback sheet, 'No unwanted marine animals in Thursday Island Port', was circulated to Torres Strait communities.

4.2.6 Gifts

The downside of participatory research is the requirement for people to take time out of their own lives to participate. In some cases this may mean that Islanders spend considerable amounts of time with researchers with possible costs to them through lost fishing time or other costs such as fuel, etc. Islanders are very generous of their time and expertise and do not necessarily expect rewards for their participation. However, it is nice to be able to offer some gift in thanks for their assistance. Researchers can consider corporate gifts that bear identifiable logos and short messages. Gifts have dual benefit of saying 'thank you', and provide a lasting reminder of the research and researcher in the future. It also helps raise awareness of the research agency through advertising the agency logo and can be used to carry research or conservation messages.

Corporate gifts are used by Government organisations such as AQIS to communicate their messages. In the past they have used a wide variety of popular items such as footballs, light sticks, hats, mugs, calendars and stickers depending on the audience they wish to target. AQIS staff feel that the budget allocated to these gifts is effective in delivering information about the service (R. Bannister, AQIS, pers. comm.).

When distributing gifts it is important to avoid offending people who may miss out when all gifts are distributed. Planning in advance who (and what) the gifts are intended for will avoid this.



CRC Torres Strait bags were given to participants of a workshop to say 'thank you'.

Gifts do not necessarily need to be of the type used by businesses bearing a logo. Other examples of gifts demonstrate that other items can be very effective ways of showing appreciation. For example a microscope donated to a school (see Case Study 5) or lures distributed at a fishing competition to thank fishers for tagging fish (A. Mapleston, JCU, pers. comm.).

Gift giving guidelines for researchers

- o Consider what gifts would be appropriate and who to give them to.
- o How many gifts are needed?
- o Researchers should keep in mind that they may be asked for gifts.
- o Check on relevant protocols of funding agencies or other relevant organisations.

Case Study 5: Sponges up close

Sponge aquaculture project. CRC TS Task T1.6a

Researchers: Dr Alan Duckworth, Carsten Wolff, Libby Evans-Illidge (AIMS) and Bryony Barnett

During a research visit to Masig (Yorke) Island to monitor the growth of the cultured sponges AIMS researchers and CRC Torres Strait staff carried out a number of activities to raise awareness and acceptance of the research in the community. The trip included a visit to the primary school to talk with the children about sponges, their biology and potential for aquaculture.



School Principal Tony Whybird and students Nancy Tapua and Sharee Nai use the microscope donated by AIMS

The school activities included looking at sponge spicules through a microscope that AIMS donated to the school. This gift of a working microscope was of huge benefit to the school that previously did not have one. Students and staff will use the microscope for many other activities and will serve as a reminder of AIMS and the research project.

4.3 Meetings and workshops

Meetings and workshops are popular communication tools for exchanging information with a variety of interest groups. Researchers are generally familiar (and feel comfortable) with meetings and workshop, however, it may not fulfil all communication requirements in Torres Strait.

Researchers need to carefully consider the outcomes sought from a meeting or workshop, and decide if this is the best forum for Torres Strait? To adequately communicate with Torres Strait Islanders, other communication tools in conjunction with a meeting or workshop will also be required.

Meetings and workshops can be informal or formal, from opportunistic one-on-one meetings in the street, to more structured meetings of representative groups.

Potential audiences are:

- o Representative groups such as Fisheries Working Groups
- o Councils
- o Community members at public meetings
- o Individuals in one-on-one discussions.

Each level of meeting or workshop has its role and benefits. Here we will look at the spectrum of meetings and workshops that may be useful to researchers, and ways of ensuring that they are efficient and deliver the communication outcomes planned.

4.3.1 Meetings

Researchers may have an idea of what a meeting is, but may need to re-think these views for application to Torres Strait. Public meetings should not be used to provide information that has not been discussed in some capacity with individuals first. Researchers should not surprise people in public. Nor should researchers expect decisions to be made in this forum (von Sturmer 1981, Anderson 1992). Consensus opinions may be ratified at a meeting, but it is unlikely researchers will establish consensus, or gather information at a meeting of Indigenous people (von Sturmer 1981).

Some people may not feel comfortable speaking up in meetings. This may be due to complex social structures. For example, in the company of elders, younger individuals may not wish to speak (von Sturmer 1981). Similarly, women may be unlikely to attend or speak at meetings due to gender issues on information topics and community social structure (von Sturmer 1981). In addition, Indigenous people have a tradition of sharing information, and decision-making is a community responsibility. Those at a meeting may feel they are unable to speak for the whole community and therefore remain silent (von Sturmer 1981, Tregenza in Walsh and Mitchell 2002).

Small meetings (with up to a few individuals) within a community, held at a local meeting place or private home, can provide an informal setting for open discussion where people tend to feel relaxed and ready to participate. This meeting style has been described as a 'kitchen table discussion' (CRC Coastal 2005), but the term 'Wongai tree yarn' may be more appropriate for a Torres Strait setting. An interest group may meet at a regular venue to discuss issues and plan community actions. For example, during the Spring tides groups of cray fishers may be found at the

Thursday Island Mura Workshop and have indicated that they would welcome contact with scientists in such an informal setting (T. Fuji, Thursday Island, pers. comm.).

At a more formal level, a larger meeting can be arranged for a specific purpose, to provide information and seek feedback from community members. Public meetings are often held as part of government planning processes where opinion is sought on specific issues. A general format for a public meeting would include introductions, presentation of information, question time and discussion.

Information Contacts can be extremely helpful with planning meetings by providing advice on any local issues researchers need to be aware of. Some Island communities have regular public meetings, which may be an appropriate venue for researchers to present information. The sponge aquaculture team (CRC TS Task T1.6a) used such an opportunity at Masig Island, to raise community awareness of their partnership with the Island Council, in March 2005 (see Case Study 6). The community members were informed about sponge aquaculture and '*how to protect youpla and protect youpla pamle*' from dengue fever at the same meeting.

Case Study 6: Public meeting at Masig

Sponge aquaculture project. CRC TS Task T1.6a

Researchers: Dr Alan Duckworth, Carsten Wolff and Libby Evans-Illidge (AIMS)

In March 2005, Alan Duckworth and Carsten Wolff presented information about the sponge aquaculture project at a public meeting at Masig Island. The aim was to provide the community with information about the project following feedback that



Processed sponges. Photo AIMS

the community felt uninformed about the project (despite the best efforts of the researchers to communicate with community members). The meeting was organised with assistance from the CRC Torres Strait Marine Research Liaison Officer and Task Associates, in consultation with the Masig Island Council. The meeting was held at the community meeting place and afternoon tea was offered as an incentive. Toshi Nakata (CRC Torres Strait), Chris Robertson and Stanley Lui

(DPI&F) also attended and provided additional information to 30 community members present. The following week, the researchers received positive feedback from community members and agreed that it was well worth the effort.

4.3.2 Workshops

Workshops are a more structured form of meeting where people are invited to work together towards a common task. Workshops can be very useful to resolve issues or come to a consensus on issues (CRC Coastal 2005). Workshops have advantages over meetings by encouraging participation but this depends on the structure.

The nature of workshops can vary considerably, from very simple to very structured and technical depending on budget, skills level of the researchers and intended outcome. Examples of workshops focussing on Torres Strait issues include:

- o CRC Torres Strait Induction Workshop (Thursday Island, September 2003)
- o Natural Resource Management (NRM) Torres Strait Scoping and Technical Workshop (Townsville, October 2004)
- o Bêche-de-mer Fishery Sustainability Workshops (various communities, January 2005).

Workshops provide opportunities to include activities that may not be possible at a meeting. Interactive activities can be very useful to engage participants in the process and encourage them to contribute (see Section 4.5). To ensure that all participants have an opportunity to have their say, 'break-out' groups can be planned in the workshop, bringing the ideas from each group to the workshop as a whole. Some very good references with excellent suggestions for conducting workshops are 'Planning for Country' (Walsh and Mitchell 2002) and CRC Coastal Citizen Science Toolbox² (CRC Coastal 2005).

Case Study 7: Cucumbers for tomorrow

Bêche-de-mer Fishery Sustainability Workshop. CRC TS Task T1.13

Researcher: Sascha Taylor (AFMA) and Tim Skewes (CSIRO)

In January 2005, a series of two-day community workshops, organised jointly by AFMA and CSIRO, were held at three eastern Island communities; Masig, Erub and Mer Islands. The workshops aimed to raise awareness of sea cucumber management arrangements and research methods, and to explain the principle of 'sustainable harvest'. Invitations were sent to communities ahead of time (November 2004). The program included PowerPoint presentations and interactive



Sea cucumbers of various species are important to the bêche-de-mer fishery in Torres Strait. Photo CSIRO

sessions, involving hands-on exercise to demonstrate the field sampling methods and measuring techniques (see Case Study 14).

The workshops helped fishers to understand the research and management, while also providing them with the opportunity to comment and gain an appreciation of how realistic their expectations were in regard to fisheries management proposals (J. Marrington AFMA, pers. comm.).

² CRC Coastal Citizen Science Toolbox available at www.coastal.crc.org.au/toolbox.

4.3.3 Planning a meeting or workshop

In planning a meeting or workshop to discuss science and/or seek comment on research activities, researchers will need to plan ahead and think about the following:

- o Appropriate time and venue. Can it link in with another community meeting?
- o Audience. Who should be invited - who is likely to be interested in the work? How should the meeting be advertised?
- o Protocols. Whose permission is needed to hold a public meeting?
- o Local issues. What else is happening in the community that may compete with the meeting or influence peoples' attitudes?
- o Format. Make the meeting interesting and relevant.
- o Equipment. What materials and special equipment will be needed?
- o Content. Is the information likely to be controversial? If so, be prepared. Will a facilitator be required?
- o Community engagement. Are there local people in the community who can assist?

Timing

The issue of timing will depend on several factors. For presentations to a focus group, such as fisher representatives in a community, it will be essential that key people are available. Find out in advance if there are other relevant meetings on/or near the planned date for the meeting. In some cases researchers may wish to avoid a clash with such meetings. In other cases it may actually be advantageous if a meeting can piggy-back onto another, because people are already gathered together. However, there is the potential for people to be less attentive if they are drained from the previous meeting. Consultation with Information Contacts will provide advice on which way would be best.

For public meetings, researchers will find it useful to consult with community representatives for advice on potential clashes with community events such as important sporting or cultural events.

It is also important to remember that the audience may be busy with work or family commitments, so the time of day to hold a meeting is important. Find a time that does not inconvenience people. An evening meeting may be better as people will probably not be at work (J. Fitzpatrick, pers. comm.). Local representatives will be able to provide advice on the best time of day to hold such a meeting.

It will be essential to plan meetings or workshops well in advance to ensure that maximum benefit is gained from them.

Venue

Researchers should be prepared to hold meetings and workshop at a wide variety of venues, with vast differences in facilities. Consider that there may not be power to run a data projector or there may not be a wall to project onto. The venue may be an open area that cannot be dimmed during the day, making Microsoft PowerPoint presentations very difficult to see. Researchers should consider alternate method for delivery of information. This may include simply talking through the information, using a white board or a large sheet of paper stuck to the wall or side of a vehicle to draw 'mud-map' diagrams illustrating complex points.



Venues for meetings may be open areas that are not well suited to projected presentations. Researchers are urged to consider alternatives.

It will also be useful to prepare simple hand-out material which summarises the main messages from the meeting or workshop. Alternatively, if the group is small enough, using the screen on a laptop computer may be sufficient.

Food

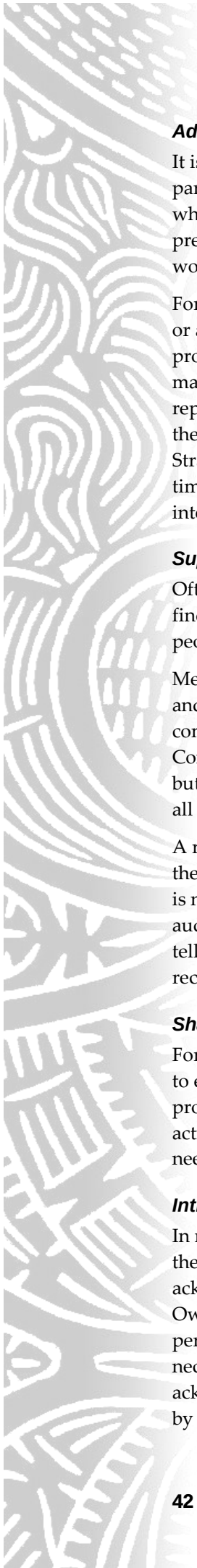
Refreshments in the form of simple nibbles, tea, coffee etc may help to encourage people to come to a presentation. This also provides a more relaxed environment that may encourage people to stay on and discuss the research. While catering may not be available in some locations, it should be possible to purchase some packs of biscuits from the local store. Check at the planned venue for access to kettles etc. if tea and coffee is planned.

Who to invite?

It is important to invite the right people to a meeting or workshop. Consult an Information Contact (such as the CRC Torres Strait Marine Research Liaison Officer) to identify who these people should be. Remember that having the right people attend is more important than the quantity of people (J. Marrington. AFMA. pers. comm.).

If it is a public meeting where a general invitation has been issued, it is 'good pasin' to invite important community members individually.

Follow-up a written invitation with a phone call to remind people of the upcoming meeting. A follow-up phone call will also be a good chance for researchers to check on any logistical difficulties that hamper people from attending, such as transport to the venue, which can easily be overcome.



Advertising

It is important to advise people about a meeting or workshop to maximise participation. Researchers can produce a simple poster with information about where and when the presentation is planned, as well as what information will be presented, ensuring that the benefits for Islanders in attending the meeting or workshop are clearly stated.

For public meetings, a good approach is to send an invitation to the local Council or a relevant Information Contact and request that the invitation be placed in prominent locations such as at the local Council Office and at the Island shop. It may also be useful to phone prominent people in the community, such as fisher representatives, police, church officials and school teachers, advising them about the meeting. Word of mouth is a very powerful tool to advertise events in Torres Strait. Meetings and workshops should be advertised early giving people adequate time to organise their schedule - many people are busy and may have conflicting interests.

Support people

Often at a meeting, researchers become so engrossed in the discussions that they find it difficult to record information or facilitate a meeting or workshop. Support people, such as a facilitator and recorder, can be vital to overcome these problems.

Meetings and workshops are most efficient with a facilitator who can encourage and mediate communication. Facilitators need to have some standing in the community and know the characteristics of those attending. An Information Contact may be suitable to fill this role. Professional facilitators can be employed, but can be costly (\$600 - \$900 per day). Facilitators will need to be well briefed on all aspects of the project and the aims of the meeting or workshop.

A recorder can also play a very important role at a meeting by accurately recording the discussions and issues from the meeting or workshop (CRC Coastal 2005). If it is not possible to have a dedicated person at the meeting to record information, an audio recording (or video tape) may be useful. However, researchers will need to tell participants why the discussions are being recording, what is planned for the recording, and (written) permission sought (see Section 4.7.1).

Shared benefits

For any meeting or workshop, be it in the Torres Strait or elsewhere, it is important to ensure that there are clear benefits for the audience, and these benefits are promoted. Researchers should be clear about what Islanders could gain from the activity. If there are no tangible benefits, researchers may need to reconsider the need for the presentation before wasting the community's time.

Introduction and welcome

In most meetings with Indigenous people it is a mark of respect to acknowledge the Traditional Owners at the beginning of the meeting. A suitable acknowledgement may be a simple 'I would like to acknowledge the Traditional Owners of this land' or a thank you to the community and those who have given permission for researchers to visit. On some Islands (eg. Central Group) it is necessary to talk to the spirits of the land. A 'good pasin' introduction is: 'I acknowledge the spirits of this land, as I am a visitor passing through'. Be guided by the Islanders. However it is done, it is important to be sincere and respectful.

Many meetings in Torres Strait begin and end with a prayer. Researchers should follow suit as a demonstrated sign of respect, seeking advice on suitable protocols before any meeting or presentation and inviting a community member to say the prayer if appropriate. A prayer would generally refer to the meeting and may ask for a successful outcome.

Researchers will notice that introductions by Indigenous Australians are more personal than in Western society. Typically the Indigenous person will talk about their 'connections to country' – where they are from, their father's country and their mother's country. In contrast, Western scientists are more likely to introduce themselves by referring to the position that they hold in an organisation and their research interests. Some researchers will find it hard to be more personal, but researchers should be encouraged to let people know more about their relevant connections to their ancestors when introducing themselves.

Reference material

Listeners at a meeting may find it difficult to absorb all the information conveyed. There will also be people who are unable to attend, but are interested in the information. Printed material from the presentation, distributed at the time or at central locations such as the local Council office can be very effective. Printed material can provide those who attended with further clarification on some point that they may have missed, or for people who were unable to attend, this information may be the next best thing. This information can be passed onto others and therefore the research information will reach beyond those who attended. This material also removes the onus on those who were there to convey information.

Some examples of reference material are:

- o Short leaflets with the main messages
- o Posters
- o Booklets with more comprehensive information.

Short information leaflets or posters need to be succinct and capture the main messages. Such information can be in the form of professional brochures or as simple as a single A4 sheet printed on a desktop printer. Researchers are urged to remember, too much information may be ineffective if the main messages are lost in the detail. However, there needs to be enough information included such that it can be understood by anyone who wasn't at the meeting. Including contact details of the researchers will also be useful if people want more information (see Case Study 8).

For more detailed handout booklets, information could also include:

- o The presentation slides printed as 'handouts' in Microsoft PowerPoint
- o A4 print of relevant posters
- o Reference material
- o Sources of further information
- o Useful contacts
- o Glossary
- o Sufficient spare paper for people to write their own notes.

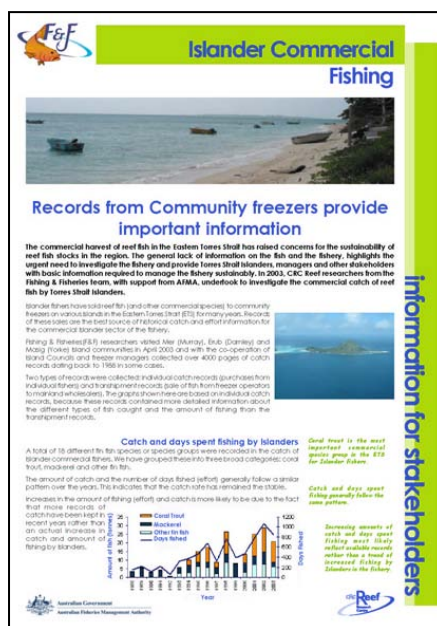
Case Study 8: Feedback on the feedback

Reef line fishery in eastern Torres Strait. CRC TS Task T1.1

Researchers: Ashley Williams, Cameron Murchie and Gavin Begg (CRC Reef/JCU)

To complement presentations about Islander Commercial Fishing in the reef line fishery, a colour A4 handout was produced, with background information, key messages and summary graphs of catch data. Different versions of the handout were produced for each of the three islands visited, and distributed only at the relevant Island. A non-specific flyer combining information from all three islands was also produced for general distribution to other interested agencies. The flyers were distributed at the presentations at each Island and left at the local Council Office for further distribution.

Feedback on the information flyers were sought from fishers who came to the presentations, as well as Council representatives who did not attend. The feedback indicated that there was too much information on the flyers, and the graphs were too complicated (see Case Study 10). The main messages formatted as text boxes separate to the main body of text were useful for highlighting the main messages.



Information leaflet produced to provide research information.

4.3.4 Feedback

It is important that discussions at meetings or workshops are documented in some way, and even more importantly that this documentation is sent to the participants and in some cases those who couldn't attend. Providing feedback to participants will ensure that the discussions were interpreted correctly and information has not been overlooked or omitted.

Always give an opportunity for attendees to comment on the material, correct inaccuracies, or add information. Be prepared to remove sensitive information if requested. Be clear on the intended distribution of feedback material – will it be a confidential document or can it be distributed? Distribution should be discussed and agreed upon at the presentation or workshop. The feedback document should be an accurate record of the discussions from the meeting or workshop. It is important that the information recorded is checked and approved by the participants for accuracy before final acceptance.

The format will depend on the extent and nature of discussions. Some dot points may be sufficient to provide the main messages from discussions, while a more extensive document would be required to document all discussions, background and other information.

Meeting and workshop guidelines for researchers

- o Consider the aims for holding a meeting or workshop.
- o Consider what benefits are in it for Torres Strait Islanders.
- o Give enough prior notice.
- o Invite the right people. Liaise with Information Contacts to identify who these people are.
- o Tailor the meeting or workshop to the venue facilities.
- o Use facilitators and recorders if required.
- o Consider starting the meeting with prayers conducted by an elder if possible.
- o Start the meeting or workshop by acknowledging the ancestors of the land.
- o Introduce yourself.
- o Produce reference material.
- o Provide feedback.

4.4 Presentations

The level of presentation depends on the audience and the forum in which the presentation is given. For example, the type of presentation that a researcher gives to a representative advisory group will differ from that given at a community public meeting or to an interested individual on the beach. However, each is important in its own right, and requires due care and consideration. Presentations should be tailored to suit the interests and needs of the audience. This is especially the case for Torres Strait Islanders who may benefit from a less formal approach than researchers are used to.

The opportunity to give a presentation may arise at any time, and impromptu opportunities should not be missed. It may be to a Council Chair met on the plane or an elder at the local shop. In these cases, a concise two minute presentation highlighting the important research messages will suffice. Researchers should think beforehand about what they would say about their work in two minutes so they are prepared for such an opportunity. You never know where it can lead (see Case Study 9).

4.4.1 Keep it simple

Simplicity is a common theme for good presentations, but one that is sometimes challenging for researchers. Researchers should remember that an audience is not as familiar with their work as they are – researchers should not assume that an audience will have any prior knowledge.

To ensure that all the information to be discussed (with sufficient background) is presented in a meaningful way, presenters will need to prioritise. An audience will

remember only two or three points from a presentation. It is essential that presenters identify the key points of a presentation, and focus delivery around these points. The risk of including too much information is that the main messages will be lost.

Avoid using jargon and technical terms. The audience may not be familiar with these words.

Case Study 9: A chance meeting

Sponge aquaculture project. CRC TS Task T1.6a

Researcher: Libby Evans-Illidge (AIMS)

For the CRC Torres Strait Induction Workshop in July 2003, Libby Evans-Illidge prepared a PowerPoint presentation about the proposed sponge aquaculture project. With the aid of a laptop computer and an interactive 'string of sponges', Libby promoted the project opportunistically. Her presentation attracted a lot of interest – including that of a high level Federal politician, Senator Amanda Vanstone, during a chance meeting at a social gathering. The interaction enabled Libby to discuss funding difficulties. This chance meeting made such an impression on Senator Vanstone that she made a special visit to Masig Island in May 2005 to hear about the project from the Island Council.

Libby Evans-Illidge discusses her research with development officer from the Masig Island Council, Ms Philippa Brauer.



4.4.2 Use of images

Indigenous people have used images to tell stories for centuries, so why not try doing the same? Images will often speak for themselves and can be used to illustrate key messages in a universal language. Images can be photographs, video, photo books, graphs, diagrams or even 'mud-maps'.

Most researchers are familiar with using computer-based images. However, a 'low-tech' option may be more appropriate for an Island setting, with effective results. Try using photos, interactive specimens, posters or even drawings in the sand as interpretive tools. If researchers are discussing areas with Islanders, a map of the areas would be useful to have so that areas can be pointed out by Islanders. In these discussions it may be useful to have someone point out the Islander names of reefs, shoals and islands that Islanders will be more familiar with.

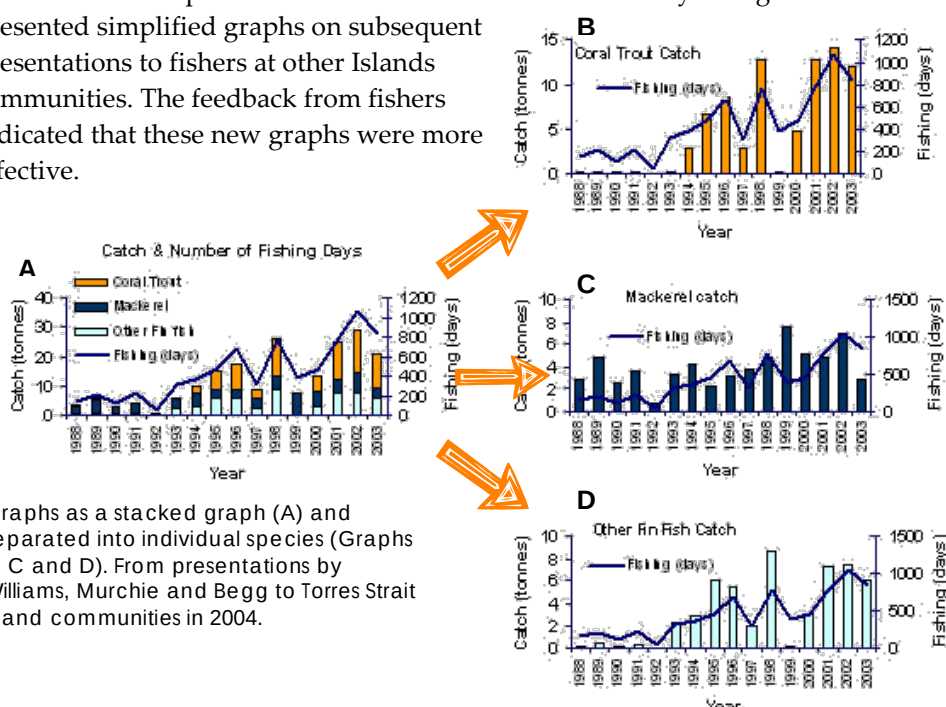
Case Study 10: Graphs for fishers

Reef line fishery in eastern Torres Strait. CRC TS Task T1.1

Researcher: Dr Ashley Williams, Cameron Murchie and Dr Gavin Begg (CRC Reef/JCU)

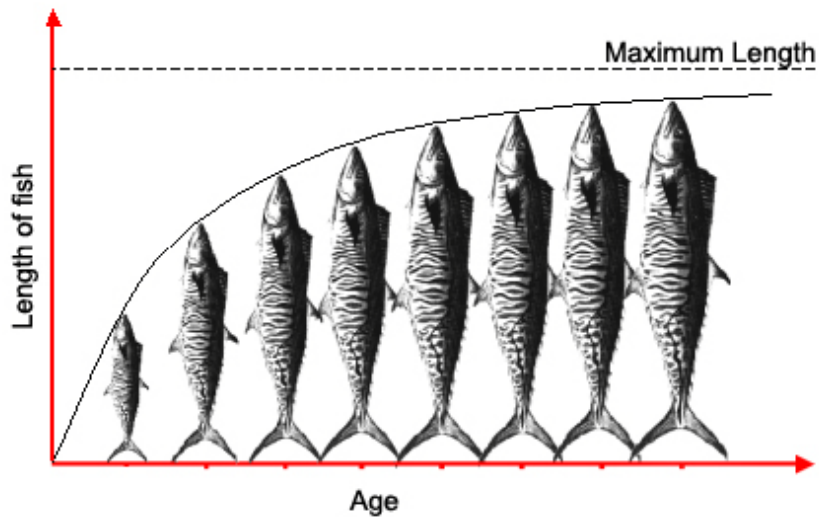
Graph A (below) was used at a presentation to Island fishers at Mer Island. Following this meeting the researchers talked to a number of Islanders and discussed with them the effectiveness of the presentation. These fishers indicated that stacked graphs (and other graphs) made it difficult to see the patterns of catch over time for each fish species. Hence, the audience had gained little from that part of the presentation.

The solution was to present the information in three separate graphs (graphs B-D), one for each fish species. The researchers made the necessary changes and presented simplified graphs on subsequent presentations to fishers at other Islands communities. The feedback from fishers indicated that these new graphs were more effective.

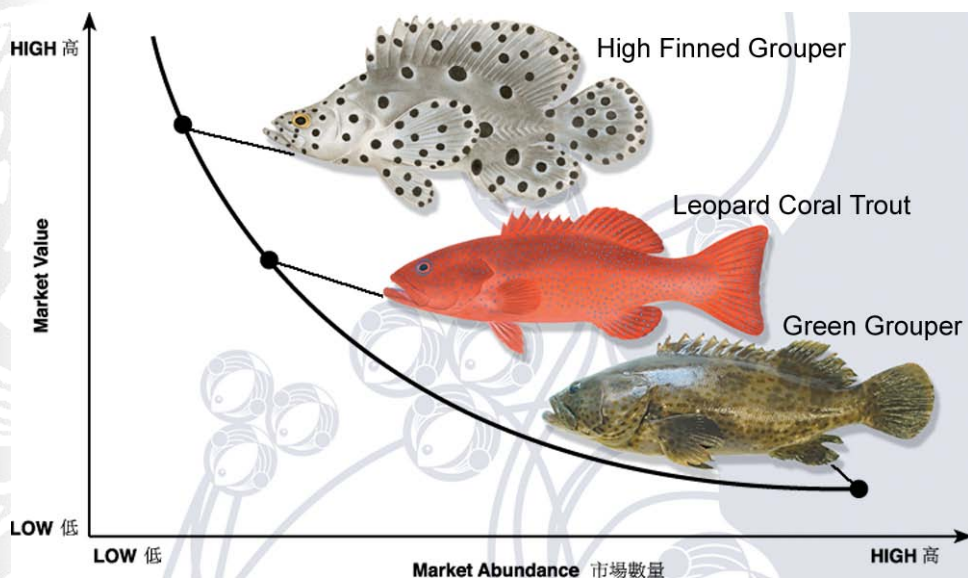


When using graphs and other graphics in a presentation, researchers should consider:

- o Does this graph fit the key messages that need to be conveyed from this presentation? If not should it be included?
- o What is the main information to be conveyed from this figure? The data on the graph should be restricted to provide this information. Providing too much data on one graph can cause confusion and runs the risk of none of the information being communicated at all (see Case Study 10).
- o Using images in graphs make them more appealing and aid explanation. Two examples are provided below.



Graph showing growth of Spanish mackerel. The images of the fish clearly shows how the fish grows over a life time. Graph from a presentation by A. Ballagh CRC Reef.



Graph from a brochure 'Fish species of the live reef food fish trade' produced by The Nature Conservancy and the Marine Aquarium Council showing relative value and market abundance of three fish species in the live fish market. Reproduced with permission from the author.

4.4.3 Storytelling

Indigenous people have conveyed information in the form of stories for many centuries. It may be worthwhile for researchers to consider this when preparing a presentation. Is there a way that information could be conveyed in a more 'story-like' way?

Telling a story can have dual benefits in more effectively communicating complex messages, while also making the information more relevant and tangible (see Case Study 11).

In essence all research is a story. It has a:

- o Beginning (some event that prompted interest in that research, i.e. the need for the research).

- o Plot and character development (what the project hopes to gain, who the main interest groups are).
- o Action (how the project was carried out and what was discovered).
- o Where to from here? (how this information can be applied by user groups).

Using metaphors, mythical places or scenes that are relevant to the Indigenous audience may help (Tregenza in Walsh and Mitchell 2002) (see Case Study 11).

Researchers may find that Torres Strait communities have their own stories about research subjects. Researchers should try to make opportunities for Islanders to share their traditional knowledge, following appropriate protocols if any of this knowledge is to be incorporated. For example, there are many traditional stories based on the 'sacred mammal' the dugong (Billy Missi, Moa Island, pers. comm.), and these are also reflected in local artwork (see Section 4.7.4). Some traditional stories are now publicly available, but there may be additional traditional knowledge in the detail, which is only transferred orally between families and communities (D. Frank, TSRA, pers. comm.).

4.4.4 Using language

Using local (Islander) names for animals, resources or places can be very effective both in written and spoken form. Use of local names can give Islanders a feeling of ownership of the information presented (J. Fitzpatrick, pers. comm.). It also shows that the researchers are listening to Islanders and are willing to incorporate traditional information into their research. However, it is important to ensure that correct language and names are used, and in some cases, there will be different names at different Islands. Printed material with Island names relevant to one Island will only be suitable for that Island and different versions (with relevant Islander names) will be needed for different Islands.

Also remember that traditional dialects (Meriam Mer and Kala Lagaw Ya) and Creole are essentially oral languages and hence translation to written form may lose some meaning. In addition, especially for children, written Creole is not easily understood (see Case Study 17). However, staff from a Government agency indicate that of corresponding brochures (one written in Creole, one in English) the Creole ones tend to get picked up quicker than those written in English.

4.4.5 Hands-on

The importance of 'props' at a presentation cannot be underestimated. Having some simple materials that can be passed around, touched and felt can provide the audience with a sense that the information in the presentation is relevant and tangible (see Case Study 12 and Case Study 13).

Case Study 11: Telling stories

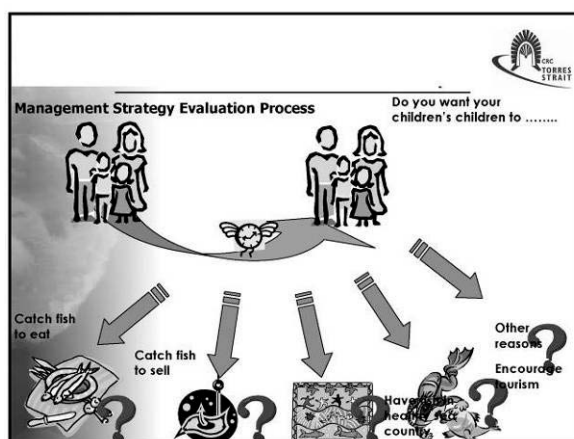
Reef line fishery in eastern Torres Strait. CRC TS Task T1.1

Researcher: Drs Gavin Begg, Ashley Williams, Cameron Murchie and Annabel Jones (CRC Reef/JCU)

Management Strategy Evaluations (MSEs) use computer models to simulate a natural resource such as the reef line fishery in eastern Torres Strait. For those unfamiliar with theoretical aspects of natural resource management and/or computer modelling of natural environments, the jargon and concepts of the MSE process can be confusing.

One of the main attributes of using MSE's is that information on the relative performance of management strategies against a range of management objectives for the resource is provided, but requires a good understanding of the process to be successful. To communicate this type of information to Torres Strait fishers a pictorial, story-like approach was trialled (see figure below).

Fishers were asked the question 'What sort of fishery would you like your children's children to have in 20 or 50 years? This question was used as a basis for discussion on management objectives of importance to stakeholders. A further question 'How do you feel we could achieve such a fishery in the future?' will lead to discussions of important strategies to be tested.



Slide from a presentation by G. Begg (JCU) on Management Strategy Evaluation designed to initiate discussion of management objectives.

Case Study 12: Seeing is believing

Sponge aquaculture project. CRC TS Task T1.6a

Researcher: Libby Evans-Illidge (AIMS)

Libby Evans-Illidge does not travel anywhere in Torres Strait without her 'sponge bag' – a carry bag containing examples of real sponges that demonstrate potential markets for sponges and how they can be cultured. At any opportunity Libby can pull out the sponges and hand them around to demonstrate with great effect the use of products from sponge aquaculture, how they are cultured and what sponges look like. People can touch, feel, squeeze and really understand exactly what the project is about. This hands-on approach never fails to attract a group of people.

Libby Evans-Illidge talks to teachers at Darnley Island State School about the sponge aquaculture project. The use of real sponges was a powerful tool for communicating research messages.



Presentation guidelines for researchers

- o Present research findings in an appropriate format – readily understandable and accessible (oral, written, visual).
- o Include ‘props’ or objects that people can touch and feel if possible.
- o Speak slowly.
- o Avoid using jargon and acronyms. Use analogies to aid descriptions.
- o If using graphs – keep them simple, with one set of information at a time. Look for more visual ways of presenting data (e.g. buckets of fish rather than a graph?). It is very important to explain axes.
- o If using traditional words, make sure they are spelt and pronounced correctly, and use them only within the home community. If speaking to people from a variety of communities, acknowledge where the words originated.

4.5 Interactive activities

There is much truth in the Confucius saying ‘I hear and I forget. I see and I remember. I do and I understand.’ For Indigenous people who may be unfamiliar with complicated scientific concepts, especially those of a numerical nature, some information may be hard to grasp. Including interactive activities may greatly enhance communication of complicated research information.

There are many different interactive techniques and activities. Such activities do not necessarily require extensive planning or skills on the part of the researcher, just some imagination (see Case Studies 13 and 14).

Interactive activity guidelines for researchers

- o Be imaginative.
- o Keep it simple.
- o Try to relate the activity to everyday life examples.
- o Use local materials as ‘props’ if possible, or images of these.

Case Study 13: The otolith story

Reef line fishery in eastern Torres Strait. CRC TS Task T1.1

Researchers: Dr Ashley Williams and Cameron Murchie (CRC Reef/JCU)

To investigate the effects of fishing on reef fish stocks it is vital to record the ages of the fish. This process requires removing small calcified bones from the ears of fish, called otoliths, and counting annual rings on these, similar to the rings on a tree.



Cameron Murchie removes otoliths from a coral trout. Employees at the freezer facility crowd around to see the demonstration.

To explain what otoliths are and what they are used for, researchers on a visit to Torres Strait took the opportunity to demonstrate otolith removal to employees at the community fish processing facility. A laptop computer was then used to explain how otoliths are processed and aged. The demonstration also provided an ideal opportunity for the researchers to explain to an engaged audience the importance of fish ages in fisheries science and management.

The success of this simple activity was shown by a request for a repeat demonstration at a public meeting and the local school.

Case Study 14: How much is too much?

Bêche-de-mer Fishery Sustainability Workshop. CRC TS Task T1.13

Researcher: Sascha Taylor (AFMA) and Tim Skewes (CSIRO)

In January 2005, Island fishers and divers got a grasp of sustainable bêche-de-mer during an interactive activity at community workshops at Masig, Erub and Mer Islands. AFMA officer, Sascha Taylor, designed an activity to demonstrate the effects of different amounts of harvest and recruitment rates, and overfishing.



Workshop participants learn about fisheries management from engaging in an interactive activity. Photo S. Taylor, AFMA.

Models representing bêche-de-mer of various sizes (life size) were printed on paper, cut out and laminated. The models each represented a particular biomass (tonnes) of bêche-de-mer in the fishery. Each fisher at the meeting 'harvested' bêche-de-mer by removing models from the 'stock'.

Recruitment was demonstrated by introducing smaller bêche-de-mer models to the stock. By varying the amount of individual harvest and recruitment, the fishers could see the effect of different harvest levels and the need for size and harvest limits.

Evaluation of this workshop indicated that participants gained a lot from the interactive approach.

Case Study 15: Numbers made easy

Community monitoring of turtle and dugong. CRC TS Task T1.11.

Researcher: Jillian Grayson (JCU)

It can be difficult for people with little formal experience of scientific methods to understand some of the numerical concepts in research. For example, the derivation of stock sizes can be difficult for Indigenous people to grasp (D Kwan, pers. comm.).

To demonstrate to Torres Strait hunters the effect of sample size on estimates of total dugong captures from a community, Jillian Grayson developed a 'calendar' of hypothetical reported dugong captures for a month of community monitoring. Hunters at a meeting were asked to 'report' hypothetical catches of dugong by placing records of catches on the calendar, based on dugong cards (seen in the figure below) allocated to each hunter by the researcher. Estimated total catch was calculated at various intervals with increasing number of days for which hunting had been reported.

Calculations derived from reports for days 1 & 2 in the figure right (estimated catch = 124 dugong/month) compared with those of 3 & 4 (estimated catch = 0 dugong/month) gave very different estimates of total catch

The variation in estimates of total catch of dugong for the month clearly indicated to the participants the need for regular reporting of catch from as many hunters as possible to ensure that catch estimates derived from monitoring were as close as possible to the real harvest.

Days	Date	Catch	Estimated Total
1	2 MARCH	8	
2	3 MARCH	0	$8+0=8$
3	4 MARCH	0	$8/2=4$
4	5 MARCH	0	$4 \times 31 = 124$
5	6 MARCH	0	$0+0=0$
			$0/2=0$
			$0 \times 31 = 0$

Calendar of reported hypothetical dugong catch from five hunters with calculated estimates of total catch for the whole month.

4.6 Printed products

Many researchers use printed products, such as technical reports or journal papers, to communicate their research results. However, these are not suited to the general community.

Several other printed products could effectively disseminate research information to Torres Strait Islanders if they have clear messages, and are attractively packaged. Examples of suitable printed include brochures, posters, reports, calendars, identification guides, books and maps. The advantage of a printed product is that the researcher does not need to be present to disseminate information and people can read it in their own time.

There are also a number of disadvantages with printed material that researchers should be aware of.

- o Printing can be expensive and require specialist skills to produce professional documents such as brochures and posters.
- o Too much information/text has the effect of making printed products visually unappealing.
- o The information dates. Once a brochure or poster is printed the information is unchangeable (or requires expensive reprinting).

4.6.1 Information sheets and leaflets

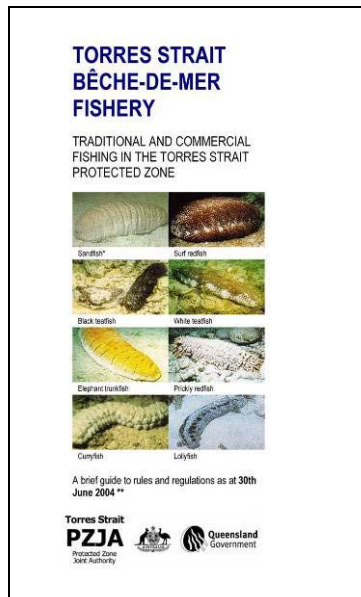
Scientists are often reluctant to provide an incomplete story when communicating their work. However, researchers should be encouraged to make information accessible in suitable formats even if it is preliminary. Such an approach will provide clear evidence that researchers are willing to provide information to communities about their research. Information sheets and flyers may be an appropriate style for this situation

Information sheets and leaflets can be in many formats and of varying levels of complexity and technicality, from professionally produced leaflets to inexpensive 'in-house' information sheets. These can be used for:

- o Informing communities of impending visits by researchers (see section 4.2.5 .
- o Information to accompany a meeting or workshop (Case Study 8).
- o Information about management regulations (e.g. AFMA bêche-de-mer fishery flyer, see figure next page).
- o Feedback sheets (formal and informal) to provide information back to communities about a meeting, field trip or research result. (Eg. reef line subsistence fishery; Case Study 16).

Information sheets and leaflets also provide a means of getting information to others in the community who researchers could not contact directly. Researchers do not necessarily need special skills to produce a simple information sheet using Microsoft Word if a few simple tips are followed.

- 1) Ask the anticipated audience what format they would like.
- 2) Keep it simple.
- 3) Focus on a few key points and prioritise information.
- 4) Use small blocks of text written in plain English.
- 5) Use pictures.



A brochure produced by AFMA including information about new regulations for the Torres Strait bêche-de-mer fishery. Reproduced with permission from AFMA

Case Study 16: Kaikai and pakor

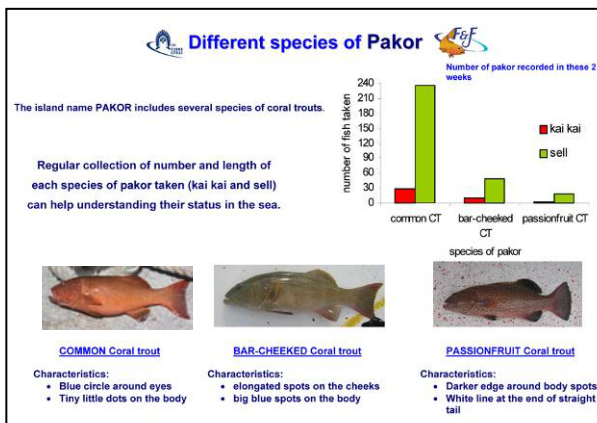
Subsistence fishing in eastern Torres Strait. CRC TS Task T1.8

Researcher: Sara Busilacchi (JCU)

At the end of one visit, Sara gave a short talk to the community to show what information she had collected during that visit, and how it could be used.

Some simple graphs were produced using Excel on her laptop computer. These were put together on an A4 handout with simple interpretation of the graphs and

relevant biological information. The information to be included was refined with input from Islanders and addition of local names for the fish. The final flyer was printed at the Council office and distributed at a community meeting where the information was presented orally.



4.6.2 Technical reports, summaries and brochures

Most researchers deliver their research outcomes as technical reports and refereed scientific papers. These documents are generally not attractive to Indigenous communities – but there may be information in the documents that are of interest to them. Where appropriate, a user-friendly summary document of a technical report can be prepared for a more public audience or a specific interest group. In this case it is worth consulting the audience when planning summary documents to ensure that they address the user's needs. For example, research information from CRC Torres Strait was reported to the CRC Reef Board Members in the form

of an annual report. For a more general audience a Highlights booklet was produced including information from CRC Torres Strait. For Torres Strait Islanders, the relevant information was then included in a brochure distributed throughout Torres Strait. The three different reporting media are compared in the figure below.

DPI&F has produced graphic map-based brochures³ summarising the Fisheries Resource Assessment Reports for the Starke Region (Ngulun Country), the Kirke River Region (Wik and Kugu Country) and Margaret Bay and Shelbourne Bay (Wuthathi Country) of Cape York (Sheppard et al. 2001a&b, 2002). These were prepared in consultation with the local Aboriginal communities and were effective in communicating relevant information of interest to Traditional Owners and the community.



The styles and intended audience for these CRC Reef/CRC Torres Strait publications were very different despite including similar information. From left to right: CRC Reef Annual Report, CRC Reef/Torres Strait/IMPAC Highlights booklet and the CRC Torres Strait Highlights brochure⁴.

Brochures and booklets, as seen in the figure above, are often at the more professional end of the publication scale and hence require some special skills and can be costly to produce. However, if taken up widely by the community the dollars spent on producing an attractive full colour brochure may be worthwhile. The effectiveness of an attractive brochure was demonstrated to one of the authors waiting to meet a Chairman in a Torres Strait Council office. In a short time (about 45 minutes) the researcher watched a considerable number of CRC Reef Dugong brochures⁵ placed on the counter of the office literally walk out the door as people came and went from the office as part of their normal business.

³ Brochures produced by DPI&F and National Heritage Trust in 2003. Reference Numbers QLD03018, QL0318 and QLD0319.

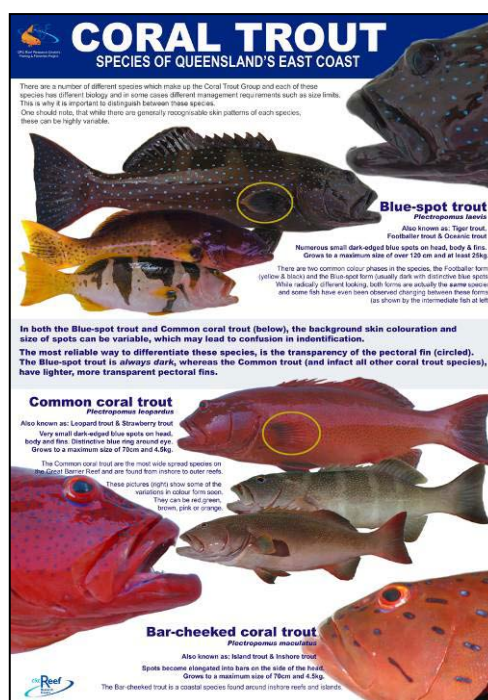
⁴ CRC Reef Annual Reports and Highlights brochure are available on the CRC Reef Website at www.reef.crc.org.au/publications/annualreport. CRC Torres Strait Highlights Brochure available at www.crctorres.com/publications.

⁵ Dugong in the Great Barrier Reef. 2002. CRC Reef brochure available on the CRC Reef Website at www.reef.crc.org.au/publications/brochures

4.6.3 Identification guides

Identification guides include information about natural marine resources including morphological characteristics, species name (scientific, common and Indigenous name), habitat, and distribution information. There are a variety of formats that these can take depending on the information to be included, the audience and the proposed use. For example:

- o **Plastic cards** – such as the Papua New Guinea Sea Cucumber and Bêche-de-mer Identification Cards produced by the National Fisheries Authority of Papua New Guinea and the Secretariat of Pacific Community⁶. These cards can be produced on waterproof plastic and are excellent products if the intended use is in any way associated with water.
- o **Fold-out guides** – such as the *Responsible Eating and Identification Guide*, a consumer outreach product produced as part of an Asia Pacific Economic Corporation project to develop industry standards for the live reef food fish trade. This format is useful for the purpose of being carried around in a wallet or pocket for quick reference.
- o **Books** – For example, *A guide to Tropical Seagrass of the Indo-West Pacific* (Waycott et al. 2004). Books can provide much more information about marine resources than the previous two examples. In some cases these have been printed on waterproof paper (for example DPI&F Reef Fish Field Guide 2004).
- o **Posters** – For example *Coral Trout Species of Queensland's east coast*⁷ (see figure right). A poster such as this can be useful for display at schools, retail outlets, Council offices and public displays.



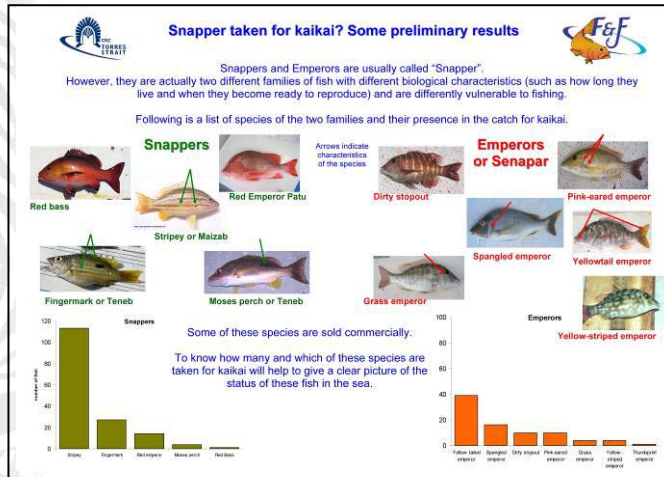
A Coral Trout Poster produced by the Fishing and Fisheries Research team at CRC Reef Research Centre.

Many of the examples of identification guides above are professionally produced products and therefore costly. However, they don't have to be. For example, JCU researcher Sara Busilacchi produced a simple poster (figure next page) displaying different species of fish important for subsistence in Torres Strait. The poster was used to help students identify fish caught by their families as part of a study of

⁶ Information about the Papua New Guinea Sea Cucumber and Bêche-de-mer Identification Cards can be found at <http://www.spc.int/coastfish/News/BDM/18/Desurmont1.pdf>

⁷ A poster produced by CRC Reef Research Centre 2004. Downloadable from <http://www.reef.crc.org.au/publications/brochures>

subsistence fishing. This simple poster was produced on a desktop computer using Microsoft Word and printed on a large format printer. Information on the poster included Island names with Western common names, biological information and identifying characteristics.



A Fish Identification Poster produced by Sara Busilacchi (JCU).

4.6.4 Calendars

Calendars are a popular way of providing information to communities in Torres Strait. Many households have a calendar on their wall, which they refer to daily. The best-known calendar in Torres Strait is the colourful AQIS product, which has been produced for many years and is now almost a collector's item. This glossy calendar provides information about quarantine rules and regulations, pests and diseases, and weeds, as well as photos and contact details of local AQIS officers and researchers. The technical information is discreetly sandwiched between smiling pictures of local identities, scenes of Torres Strait Islands, and useful community information such as school terms and key community events.

The Queensland Department of Families also used a calendar to convey messages about child abuse in 2003, printing both English and Creole versions. Queensland Boating and Fisheries Patrol produces a popular calendar distributed throughout Queensland, with fisheries management messages displayed in cartoon style illustrations.

The more traditional 'seasonal calendar' can be used very effectively to plot seasonal observations and changes in occurrence and behaviour of marine plants and animals, as well as weather conditions. The information is usually recorded in a circle, divided into monthly segments, with information plotted within the circle over the appropriate time period. This way, observations on weather, bush foods and saltwater foods can be read together, showing the relationship between different environmental elements. This style is more reflective of the holistic nature of Indigenous culture. A good example can be found in the recently released book *Yalanji-Warranga Kaban. Yalanji. People of the Rainforest Fire Management Book* (Hill et al. 2004).

4.6.5 Posters

A poster can be used to convey simple messages about research, and is appropriate for Indigenous audiences if it is graphic, colourful and simple. The standard science poster produced for a research conference is unlikely to be effective in Torres Strait if it is text heavy and overloaded with complicated graphs, formulae and technical terminology.

An AFMA poster of *The life cycle of the Torres Strait dugong* has been popular and informative. It has been used effectively in school classrooms in the Torres Strait as well as for adults, both in Torres Strait and elsewhere in Australia. Two posters were developed by AIMS in 2005 to help promote the sponge aquaculture project (CRC Torres Strait Task T1.6a) at Masig Island in Torres Strait and at Palm Island off Townsville (see Case Study 17).

Case Study 17: Sponge story in a poster

Sponge aquaculture project. CRC TS Task T1.6a

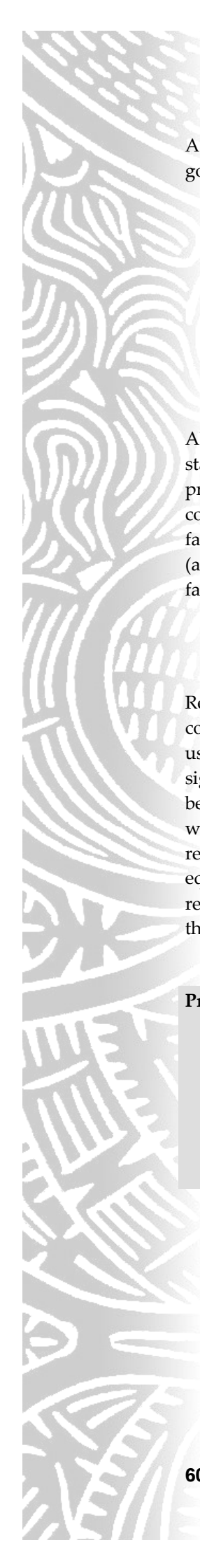
Researchers: Libby Evans-Illidge, Dr Alan Duckworth, Carsten Wolff (AIMS) and Stanley Lui (DPI&F)

AIMS researchers produced two posters for use at Council and public meetings, and during school activities, to explain the sponge aquaculture project at Masig Island, and another to show the steps in processing cultured sponges. The posters followed the principles of simple messages, clear flow of information and good use of photos and colour.



The text was written in Creole translated by Stanley Lui (DPI&F Indigenous Aquaculture Liaison Officer). The posters were very useful for the Masig Island Council and public meetings (see Case Study 6) and as a reference during presentation of school sponge activities (see Case Study 22). Feedback from Masig Island school teachers on the use of Creole, suggested that education products targeting Torres Strait children were best written in English, the language they are taught to read in school. Creole is primarily an oral language and many children would be unfamiliar with written Creole.

Poster aimed at increasing awareness of sponge aquaculture research at Masig Island. Reproduced with permission from AIMS



A poster must be eye-catching and convey its message at a glance. The elements of good design for a poster are:

- o Simple, clear messages.
- o Good layout and flow of information (use different font sizes to reflect an ‘information hierarchy’).
- o Effective use of images and graphics – try to find Torres Strait Island artists and designers to help give the right cultural effects to a poster.
- o Colour used simply and effectively.
- o Font sizes large enough to read from a distance (ASCA 2004).

Although researchers can engage a professional graphics artist (use the extension staff at affiliated agencies if possible) to design a poster, for lower budget research projects it is still possible to produce a poster. Posters can be designed using computer graphics programs (such as Photoshop) or PowerPoint. Many printing facilities in larger regional cities can print large format printers at reasonable costs (around ~\$50.00 for an A2 poster) if researchers do not have access to these facilities. Laminating of posters ensures they are not damaged during travel.

4.6.6 Other printed products

Researchers should consider other printed products that they may not have considered before, but fit well with the Torres Strait environment and potential uses. For example, Maritime Safety Queensland produced a large format adhesive sign (A2 and A4 size) with messages about maritime safety. The sign is designed to be stuck in a boat where it can easily be seen out on the water. It includes a map with distances between islands in Torres Strait and the estimated amount of fuel required to make the journey. The sign also includes graphics of other safety equipment that should be carried in a boat. Messages could also be included in recipe books, other corporate type gifts such as rulers, pens etc (see Section 4.2.6) - the possibilities are endless.

Printed product guidelines for researchers

- o Consider the audience and how the product may be used.
- o Researchers should think of printed products that they may not have used before such as calendars, comic strips or identification guides.
- o Keep it simple and graphic, prioritise information included.
- o Use images where possible.

4.7 Visual tools

The use of visuals in communication activities cannot be underestimated. The majority of communication media and activities will be enhanced by inclusion of visual elements as demonstrated throughout this report.

4.7.1 Images and audio

Digital cameras, both still and video, are becoming increasingly popular and affordable. Researchers now have easy access to digital images that can be incorporated into communication activities. This approach brings tremendous benefits to researchers as there should be an image available to suit any situation. Taking photographs or video can also provide an opportunity to begin conversations with people. Islanders often love having their photographs and video taken and seeing images of their family. This is especially the case for children.

Care and respect must be exercised when taking any records of Indigenous people adhering to relevant principles and protocols. Researchers should also consider protocols for images of deceased Indigenous people.

Ask first: Permissions

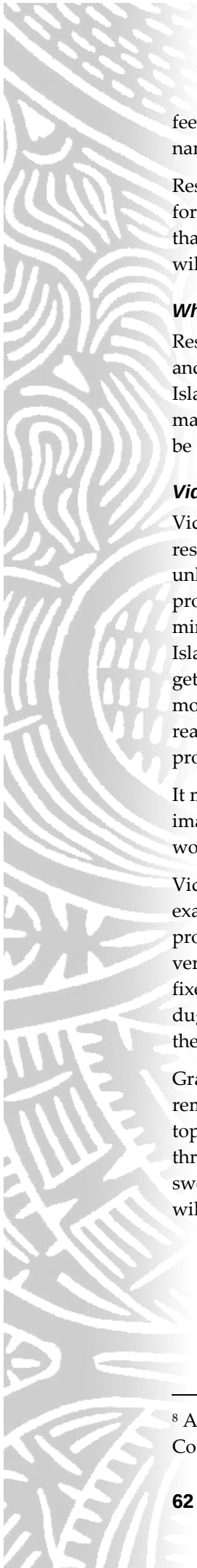
It is essential that appropriate ethics approvals are sought by researchers from their associated organisation. It is equally as important to seek permission of the person being photographed or taped prior to recording any footage. An explanation of the intended use (what, when and where) for the recording is important. If visiting a community, it is suggested that permission is sought from the Council and/or another representative group prior to taking any footage, as well as permission from individuals photographed.

Although not always practical, it is recommended that researchers seek written permission from those they wish to film or photograph wherever possible, using a standard form (Appendix 2). It may also be useful to have a short written sheet that can be given to people with the relevant information and contact details of the researcher.

Give special consideration to images that are potentially culturally sensitive, such as hunting or butchering. It is essential that permission from the correct people is sought before taking these images and informed agreement on the use of such images reached. Be very careful with the use and storage of such images to ensure that they are only used for their intended (and agreed) purpose.

It is important to consider the use of images of deceased Indigenous people. Indigenous people may be distressed or offended by images of deceased people, or the use of their name. Researchers should check image libraries regularly for images of deceased people and remove them if required. Many media organisations now include a warning at the beginning of programs that include images of Indigenous people. The warning specifies that the program may contain images of people that have died and these images may distress or offend some people.

If possible, record the names of those photographed to include in captions when using the photo in a publication with the subject's permission. This will negate the



feeling of anonymity that is often felt by Indigenous people when represented as nameless faces on images.

Researchers may also consider leaving copies of the images with the local Council for their own use or in a similar Keeping Place (see Chapter 6). This demonstrates that the images taken were not negative in any way and shows that researchers are willing to give something back to communities for their own use.

What to capture

Researchers should try to take images of people doing things from different angles and perspectives, and images of themselves doing things and interacting with Islanders. The main thing is to take as many images as possible. While researchers may accumulate a lot of photographs with this approach, generally there will only be a couple that will be suitable to use.

Video

Video footage is becoming increasingly popular and can be a very useful tool in a researcher's communication toolbox. If a professional 20-minute video is required, unless the researcher has formal skills in the area they will need to hire professionals to do the job and commit large amounts of money (around \$1000 per minute of video). However, for very short video clips used in presentations to Islanders, representative groups or even at scientific conferences researchers could get useful footage with a home video recorder and easily accessible computer movie maker software such as Windows Movie Maker. For researchers who are really keen on this method, it is suggested that they invest in a short video production course.

It may also be useful to have one person in the group dedicated to capturing images on video to ensure useful footage is captured. It is difficult to do research work and take video footage simultaneously.

Video documentaries can be very effective in delivering research messages, for example, *Mystery of the minke* a National Geographic and Digital Dimensions production disseminating whale research on the GBR. Videos, as well as being very expensive to produce, also have problems in that the information recorded is fixed and cannot easily be updated. An example of this is the highly successful dugong video (*Dugong for our Children*⁸) which required an update two years after the original production.

Graphic documentation of research information can also have the advantage of removing the difficulties of language. Complex subjects such as seafloor topography and dynamics have been communicated effectively with dramatic 'fly-throughs' by Geosciences Australia. This simulation takes the viewer underwater, sweeping through canyons and over mountains around Torres Strait. This resource will be of great interest to Torres Strait Islanders when talking about the sea floor.

⁸ A joint production by TSRA, GBRMPA, AFMA, JCU and Mabuiag Island Community and CRC Reef.

Uses

Slide show presentations

It may be useful to run a slide show at the end of a research visit to a community to show what has been done during the research trip. This could include a series of photographs taken during the visit viewed as a PowerPoint presentation or as a slide show. Providing copies of the images or footage to the subjects of the photos is a way to say 'thank you' for being involved. Having a slide show can be beneficial for several reasons:

- o It can initiate discussions about research.
- o It shows that the research has been conducted in an appropriate manner.
- o It can help build relationships between Islanders and researchers.

Photo books

Researchers who take a lot of photographs, may consider printing them as a photo book that can be taken along on research visits. A photo book can be produced by printing photographs on an A4 page (possibly laminated) and binding the pages together to form a book. Accompanied by a few simple words of explanation, these images can tell a story about the research and how Indigenous people are involved (Snowdon in Walsh and Mitchell, 2002).

A pictorial record of the research may tell Islanders much more about the research than could be conveyed in a one hour oral presentation. It can be easily transported and does not require any special equipment or venue to be effective. A picture book can accompany a meeting or presentation where people can view it while listening to the talk.

Data collection

Digital cameras may be an important tool for collecting data. Where researchers wish to collect information from records that exist as paper copies, instead of photocopying these, they can be photographed. With a 3MB digital camera (or higher resolution) with a large memory card (256MB or larger) images of the pages required can be captured digitally (C. Murchie, CRC Reef, pers. comm.). This negates the need to carry large amounts of paper or access a photocopier. Often the quality of the final image is better as a digital photograph than a photocopy as digital images can be enhanced to detect very faint text that is unclear on photocopied images (see Case Study 18).

Similarly for situations where notes are recorded on a whiteboard at a meeting, it is simple to take a photograph of the board instead of trying to write the information down on paper. Or if 'mud maps' (hand drawn maps or diagrams) are generated on an immovable object such as the ground, the maps can be recorded as a digital photograph for later reference.

Case Study 18: Camera copies

Reef line fishery in eastern Torres Strait. CRC TS Task T1.1.

Researcher: Cameron Murchie and Dr Gavin Begg (CRC Reef/JCU)

An important part of this research project was to investigate historical commercial fishing by Islanders for reef fish. The best source of this data was from sales of fish by Islanders to community freezer facilities. These data were stored as written records in books, often for many years.

Using a digital camera set at medium resolution and the macro setting, images of each page of a record book were captured. A specially designed frame for holding the camera over the book (see figure below), a tripod or leaning against a wall were used to steady the camera.



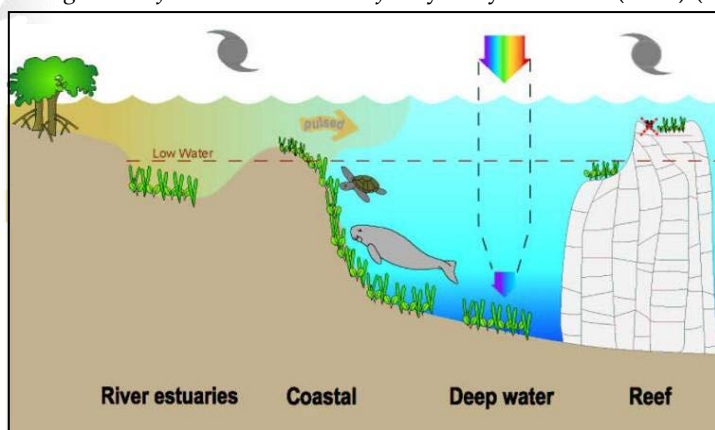
Date: 1/11		Fisher # Fishers: 2	
Spp	FL	Spp	FL
cct	470	cct	445
cct	392	cct	452
cct	390	cct	455
cct	442	cct	462
cct	548	cct	472
cct	467	cct	411
cct	450	cct	533
cct	398	cct	462
cct	411	cct	526
		cct	520

Cameron Murchie captures data as images on a visit to Torres Strait (left) and an image of a sample data sheet (right).

4.7.2 Conceptual diagrams

Conceptual diagrams or 'thought drawings' are an effective tool for science communication, using symbols to convey the features and processes of a system. For example, a diagram of an inshore seagrass bed and fringing reef can be represented using symbols to indicate natural and man-made processes affecting the system. The diagrams can be as simple or as complex as necessary, to suit the audience, and have great potential in explaining research outcomes to a variety of Torres Strait Island audiences.

Conceptual diagrams have been used in a number of publications on seagrass distribution, including the James Cook University publication *A Guide to Tropical Seagrasses of the Indo-West Pacific* by Waycott et al. (2004) (below).



Conceptual diagram from Waycott et al. (2004) *A Guide to Tropical Seagrasses of the Indo-West Pacific*. Reproduced with permission of the authors.

Another good example is the diagram by Mike Cappo and Russell Kelley, *Cross-shelf baitfish-predator links* (below) which shows the seasonal pattern of cross-shelf relationships of baitfish and predators in north eastern Australia. A huge amount of scientific information is presented in a format that is far more interesting to a general audience than pages of text.

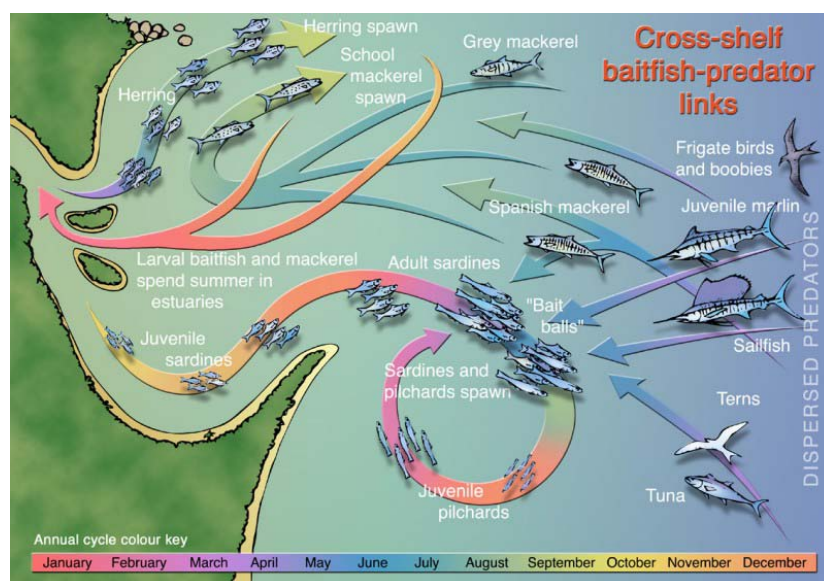
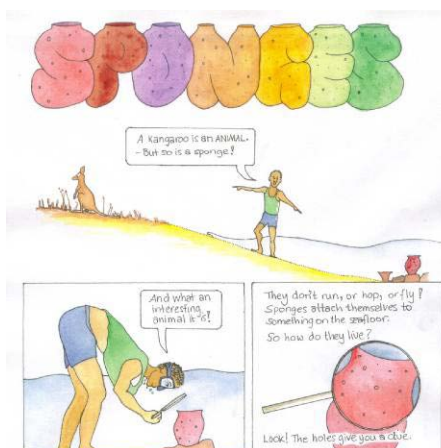


Diagram depicting connectivity between pelagic fish and bait fish.
Copyright Wolanski E. (Ed) 2001 from *Oceanographic Processes of Coral Reefs*. Reproduced with permission of Routledge/Taylor & Francis Group, LLC

Using maps, 'mud maps' or models while talking to Torres Strait Islanders can help build a conceptual diagram. Where people have difficulty interpreting two-dimensional diagrams, a stepped approach to building the diagram piece-by-piece may aid understanding. Feedback from DPI&F researcher Dr Jane Mellors suggested that Thursday Island High School students found it easier to understand the diagrams if they were involved in building the diagrams step-by-step. Developing a conceptual diagram also provides opportunity to incorporate traditional knowledge.

Further information on conceptual diagrams can be found on the Integration and Application Network website (www.ian.umces.edu/conceptualdiagrams.htm)

4.7.3 Cartoons and illustrations



Cartoons can be used to tell a research story to Indigenous audiences. Marine educator Sarah Lowe drafted a colourful cartoon based on the biology of sea sponges for a Palm Island school activities program. Researchers may be nervous about simplifying their science for community or junior audiences, but – with attention to detail – cartoons can be both entertaining and scientifically accurate.

Draft cartoon by Sarah Lowe for a CRC Reef/AIMS school activity program at Palm Island (May 2005). Reproduced with permission of the artist.

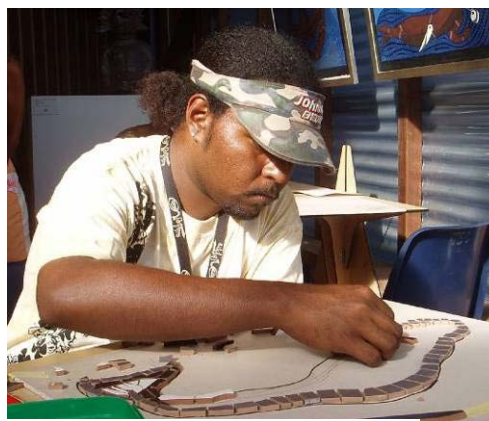
4.7.4 Artwork

Art is an important way to communicate for many Indigenous cultures, including Torres Strait Islanders. Researchers may like to consider this avenue as an effective way of communicating research messages. There are numerous examples that demonstrate the potential for CRC Torres Strait scientists to link with Torres Strait artists to communicate 'stories' from research projects through their art. This is also another way to incorporate traditional knowledge with research information. If researchers plan to use traditional art to communicate science it is recommended that they engage Torres Strait Islander artists.

Cairns based mosaic artist, Dominic Johns (Shardworks Mosaic Studio), has worked with the DPI&F Seagrass-Watch group in community development and education activities with his art. The results of his educational mosaic workshop, held at Thursday Island during the 2004 Cultural Festival, can now be seen around the Torres Strait community and at the Gab Titui Cultural Centre.

A group of young Torres Strait Island artists based on Mua (Moa) Island at the Mualgau Minaral Collective, use linocut prints to tell stories about changes in the life of Islanders and their environment. Their artwork

includes traditional legends and more contemporary observations of changes in the marine environment. Dugong, turtle, crayfish and trochus all feature in their work. Their first exhibition *Gelam my Son* (Kubin Community Council 2001) included a crayfish print by David Bosun titled 'Dying Industry', which tells the story of the decline in crayfish, as a result of new technologies such as diving and prawn trawling – from a traditional cray fisher's perspective. Billy Missi's work entitled *Dhangal Um Araik* expresses his concern about present dugong hunting practices in the Torres Strait, and the threats to their environment, and incorporates symbols to represent traditional stories about 'dhangal' (dugong).



Daniel Abednego creates a dugong mosaic at a workshop run by Dominic Johns during the 2004 Cultural Festival at Thursday Island.

Visual tool guidelines for researchers

- o Gain permission before taking any photographs or using artwork, including ethics approval.
- o Carefully consider Indigenous culture with respect to images of sensitive nature or Indigenous people.
- o Provide information on, and negotiate terms of the intended use of the images.
- o Get photos of researchers and Islanders engaged in research activities.
- o Use images in creative ways.
- o If commissioning illustrations or artwork, use local Torres Strait Islanders if possible.

Case Study 19: Art and science.

Communication guidelines for researchers. CRC TS Task T5.1 and Melissa Nursey-Bray PhD Project (2003)

Researchers: Bryony Barnett (CRC Reef) and Melissa Nursey-Bray (JCU)

Art is a good medium for engaging and communicating with children about marine science. Sponge painting was included in a program of school activities ('Sponges are fun') developed in conjunction with the sponge aquaculture projects at Masig Island (see Case Study 22) and Palm Island. Children used sea sponges and synthetic sponge rollers to paint designs – and learn about the use of sponges first hand.



Likewise, children at Hope Vale Aboriginal Community were involved in developing a turtle and dugong hunting management plan through an art competition where students drew images about hunting and sang songs about the management plan. This process captured traditional knowledge and a display of the children's work helped to raise community awareness about hunting (Nursey-Bray 2003).

Students from Yorke Island State School do some sponge painting.

4.8 Displays and exhibits

Displays and exhibits can provide information to community members, as part of a festival workshop or conference, and to raise the profile of a research organisation or project. In Torres Strait, researchers can look for opportunities to be part of an established event such as the Torres Strait Annual Cultural Festival and local CrocFest events (a festival for Indigenous and non-Indigenous youth from rural and remote areas). At community events research information will be competing with other cultural activities, so it needs to be imaginative. Researchers should contact representative groups such as TSRA and Councils for information about these events and how they can be involved.

A display may include posters, interactive components, three-dimensional models, preserved specimens, audiovisual elements and print products for people to peruse or take away. Displays need to engage people to gain their interest in an environment where there are often other distractions. Something that is very visual and relevant to the audience will often entice people to come and have a better look at the display.

People love to touch and feel things, so make sure such materials are accessible, but secure and safe to handle. For example, a string of sponges was handled by most visitors to the CRC Torres Strait display at the 2004 Cultural Festival.

The cost of a display depends on the degree of permanence and availability of materials. A low-cost display can be assembled from available posters and materials, and is most suitable for informal settings in the Torres Strait. At the upper end – a professionally produced permanent display with a longer life can cost more than \$10,000.

When setting up a display, researchers should consider the surfaces needed to lay out materials and posters and how they will be secured. It is useful to have lightweight folding display boards and a table which can be easily transported and erected as a basis for a display. Be prepared also for the effects of the weather – the Torres Strait wind can play havoc with panels, posters and brochures. Remember that a display should be staffed by people with good interpersonal skills who can answer a range of questions and are informed about other research and researchers.



AIMS researcher Libby Evans-Illidge produced an interesting display about sponge aquaculture at Palm Island. A combination of posters, microscope specimens, assorted sea sponges and culture equipment invited the community to get their 'hands on'. Photo S. Lowe.

Display and exhibit guidelines for researchers

- o Be imaginative.
- o Include interactive materials that people can handle.
- o Ensure staff have a wide range of knowledge of research projects.
- o Ensure that the display material can withstand wind, handling and transporting.

4.9 Media and newsletters

Local media such as radio and local papers are widely distributed and used throughout Torres Strait. Media can, therefore, be a cost-effective way of communicating information about research work to a wide audience. However, the risk is that control is handed to a third party (the reporter). Researchers will probably not be able to vet the interview or article prior to release. Therefore, some training in techniques for dealing with media can be very useful for researchers to ensure that the correct messages are conveyed in a media interview. Media training courses for researchers are occasionally run by research organisations or researchers may seek training from media staff based at their organisation.

Many research organisations will have protocols for researchers speaking to the media. Researchers should familiarise themselves with these protocols and follow them at all times.

4.9.1 Radio

The local radio station, Radio 4MW (1260 AM) is broadcast from Thursday Island by the Torres Strait Islander Media Association (TSIMA) and is listened to widely. The radio is received throughout the Torres Strait Islands, to Western Province in PNG and to Laura in mainland Australia. Information broadcast on the radio has good potential for exposure to a large number of people. A radio interview can be a useful way of letting an Island community know if researchers need help with their work.



Cameron Murchie is interviewed by Sylvia Tabua. Information broadcast over the local radio station has the potential to reach a large audience throughout Torres Strait.

There is an expectation that all CRC Torres Strait researchers will make themselves available for a radio interview with Radio 4MW when visiting Torres Strait to discuss their work. For researchers who are not going to Thursday Island or do not have the time to visit the radio station, interviews can be done by phone. If necessary this can be done before the visit.

Researchers should think carefully about the key messages they would like to communicate to Islanders and draft three questions that would assist in delivering these

messages. These can be given to the presenter at the radio station and will help guide the questions they ask. Researchers will usually have a chance to discuss their research with the presenter before the interview begins.

Before starting a radio interview on 4MW researchers should acknowledge Traditional Owners by saying 'I would like to acknowledge the Traditional Owners of this land'.

4.9.2 BRACS

The Broadcasting for Remote Aboriginal Communities Scheme (BRACS) provides community radio broadcast services available at key communities throughout Torres Strait broadcasting to their relevant community only. BRACS broadcasts can be very useful for communicating specific information relevant to individual communities (see Case Study 20).

4.9.3 Torres News

The *Torres News* is distributed throughout the Torres Strait weekly. The editor is generally very happy to include articles about relevant research being conducted in Torres Strait. To help ensure that a research article will be printed, researchers should submit a concise, easy-to-read article to the relevant media coordinator for their organisation for vetting by the appropriate channels. If researchers are not used to writing text for newspapers they should read some past articles for examples of the level of language, style of writing, text, etc or seek help from media staff at their organisation. An image will always make an article more

appealing for print, so researchers should include one if possible. The media organisation (newspaper etc) should be contacted about preferred image size and format.

Researchers need to remember to always ensure their article is approved by the relevant bodies such as TSRA, Community Councils, etc prior to submission. Submission of media articles should be coordinate through the correct channels such as media liaison staff at the relevant research organisation.



The *Torres News* is distributed widely throughout Torres Strait

Case Study 20: Asking for help

Subsistence fishing in Eastern Torres Strait. CRC TS Task T1.8

Researcher: Sara Busilacchi (JCU).

The BRACS system was helpful in a study of subsistence fishing at Erub Island.



A good catch of fish for kai kai.
Photo S. Busilacchi.

Sara conducted a short interview to let people on the Island know she was visiting the community, the aims of her research, and that she needed help from the community to tell her about the fish they had caught to eat at home. This resulted in offers of information and help for her research project.

4.9.4 Newsletters

Several relevant newsletters have wide distribution in Torres Strait. An Information Contact such as the CRC Torres Strait Marine Research Liaison Officer can advise researchers on which ones would be relevant to their research. These newsletters may be an appropriate avenue to communicate information to Torres Strait Islanders.

The *TSRA News* is distributed with the *Torres News* on a regular basis and has wide distribution throughout region. Researchers wishing to have an article included in this newsletter should draft an article in a similar style to that of the *Torres News* following similar protocols to that described for this newspaper.

The *CRC Reef Newsletter* is sent to all member organisations in CRC Reef (including CRC Torres Strait) and many people with various interests. Articles of a similar nature to that of the *TSRA Newsletter* can be drafted and sent to the Media Liaison Officer at CRC Reef. Both newsletters are then placed on the relevant websites for access by a wider audience.

4.9.5 National media

To communicate information to a wider mainland audience, researchers may consider accessing the national media. There will be less control over the interpretation and reporting of information or the questions that may be asked. This strategy will also require a more formal approach, starting with a media release. It is advisable that researchers seek the assistance of the media liaison officer from their research organisation. It is also essential that all media releases are approved by the appropriate people, based on relevant protocols for individual organisations. In view of some damaging past examples of Torres Strait research information being distorted by national media, it is essential that researchers take care when talking to reporters, keeping in mind that their motivations may differ.

If engaging national media is important, it may be necessary to provide funding for reporters to visit Torres Strait. Researchers will need to ensure that permission has been obtained from all relevant bodies for visits by reporters associated with them. Reporters arriving at a community without permission will be disastrous for ongoing relationships with the community and for research as a whole.

Media guidelines for researchers

- o Liaise with relevant media officers and liaison staff.
- o Ensure approval has been gained through the appropriate channels before submitting an article to a newspaper or doing a media interview.
- o Use Torres Strait regional media where possible.
- o Be aware of, and follow relevant media protocols.
- o Identify two or three key messages to communicate.
- o Consider media training.

4.10 Website and internet

Websites are very effective for disseminating information to remote communities that have the necessary computer and internet access. Large amounts of information can be made available and accessed at any time. Information can be added and updated to ensure accuracy, and interactive components included to gather data or provide feedback. The world wide web is becoming increasingly popular with school children and community groups as an information source, and as a consultation tool (CRC Coastal 2005).

Torres Strait Island Councils and schools generally have access to the internet. However, the majority of Torres Strait Islanders have limited access to computers and the internet. Therefore, websites and the internet is not a preferred means of communication for Torres Strait Islanders.

This situation may change and researchers may wish to consider websites as a communication tool for Islanders in the future. In the meantime, information can be posted on relevant websites where possible for other stakeholders in such a way that it is suitable for Torres Strait Islanders as well. In most cases this will be on websites hosted by research organisations.



The CRC Torres Strait
Website at
www.crctorres.com

The CRC Torres Strait website has been particularly useful for coordinating the activities of researchers visiting the Torres Strait, through the 'Visiting Researchers' calendar. The calendar is primarily for the benefit of researchers and Task Associates, providing opportunities for collaboration between researchers or assistance with transporting equipment. Positive feedback from researchers has confirmed the benefits of the calendar.

Website guidelines for researchers

- o Many Torres Strait Islanders may not have access to the internet.
- o Keep the information simple and easily navigable.

4.11 Education and training

4.11.1 School activities

Information from CRC Torres Strait research can be communicated to Torres Strait Island children through school programs and activities. This can be an effective way to channel information to the broader community as children tell their family and friends about what they learnt at school. This technique has been used by researchers from DPI&F, AIMS and JCU, working on seagrass (see Case Study 21), sponges (see Case Study 22) and intertidal fauna respectively.

Island schools generally welcome visits by researchers, however, this should be arranged in advance through the school principal to avoid disruption to classes, and with the community Councils. It is also essential that school activities link into the school curriculum. Researchers should consult appropriate education staff such as teachers or the Queensland Department of Education for advice on what activities would be suitable. Researchers should take relevant education materials with them for the school library and classroom.

For secondary school children, the Thursday Island High School runs an innovative vocational education program in marine studies and aquaculture, with a strong practical component. CRC Torres Strait researcher Dr Gilianne Brodie is exploring opportunities to provide training support and information transfer for this program that may lead to careers in marine science or management. Other researchers could have input to this program, with advice from the school principal. Researchers should be aware also that many secondary school students from the Torres Strait are boarders at schools in Abergowrie, Charters Towers, Townsville and Yeppoon, and will require a different approach if they are to be reached (J. David-Petero, Thursday Is, pers. comm.).

Several schools in Torres Strait are engaged in the GBRMPA Reef Guardian Program⁹ which encourages schools to develop on-ground and community-based projects aimed at conservation of the GBR Marine Park. Researchers are encouraged to look for opportunities to link their activities to this school program.

Case Study 21: Hands-on for healthy seagrass

Seagrass-Watch and Clean Beach activities. CRC TS T4.1 and DPI&F.

Researchers: Drs Jane Mellors (DPI&F) and Gilianne Brodie (JCU).

Jane Mellors has worked energetically with staff and students at the Thursday Island High School and Horn Island Primary School to raise awareness of the value of seagrass beds, and establish Seagrass-Watch monitoring sites at local beaches. Classroom sessions included PowerPoint presentations and seagrass identification activities, with field training in monitoring techniques. Through repeat monitoring at accessible beach sites, subtle changes have been recorded by the students and will be interpreted with further monitoring.



Thursday Island High School students identify sea grasses from a local beach with Jane Mellors from DPI&F.

Gilianne Brodie (JCU) added another dimension by teaching the students about marine fauna associated with the seagrass beds. The two researchers have linked in to the Island's Clean Beach Initiative 'Clean beaches mean healthy seagrass beds', in partnership with the Torres Shire Council, and Ports Corporation.

4.11.2 Drama and role-play

Drama and role-play are also effective environmental education tools with Indigenous audiences (Walsh and Mitchell 2002). This technique has been used by the Wan Smolbag ('One small bag') Theatre¹⁰ in Vanuatu to educate local communities about endangered sea turtles and to enlist support for conservation measures. As part of the South Pacific Regional Environment Program's (SPREP) Year of the Sea Turtle in 1995, a special sea turtle play was performed in communities around Efate, which led to formation of a network of community-based turtle monitors.

Role-play is very effective in a program of school activities. For example, school activities held at Masig Island and Palm Island linked to the AIMS sponge aquaculture project, helped young children to understand how sponges feed by filtering plankton from the water. A circle of children became the collar cells of a sponge filter chamber, waving their arms (flagella) in unison to create water currents – and were duly rewarded with 'food' (see Case Study 22).

⁹ The GBRMPA Reef Guardian Program website address is www.reefed.edu.au/guardians/index.html

¹⁰ The Wan Smolbag website address is: www.wan-smolbag-theatre.org

Case Study 22: Sponges are fun

Communication guidelines for researchers and sponge aquaculture project. CRC TS Tasks T5.1 and T1.6a.

Researchers: Bryony Barnett and Annabel Jones (CRC Reef), Dr Alan Duckworth and Carsten Wolff (AIMS)

A program of primary school activities based on sponge biology and function, and sponge farming was developed by Bryony Barnett, and delivered to school children at Masig Island in March 2005. The program was designed to promote community awareness of the value of sea sponges and the sponge culture trials being conducted at Masig Island.

Children from all primary grades enjoyed interactive learning about sponges as animals and 'super suckers'. The children viewed sponge spicules under a microscope donated by AIMS and put on SCUBA gear. Positive feedback from the school staff and students indicated this activity was highly successful.

In preparation for the program, letters were sent to the Masig Island Chair, Deputy Chair and the School Principal, seeking permission to visit the school, with follow-up confirmation phone calls.



School children at Yorke Island State School discover why sponges are called 'super suckers'.

4.11.3 Educational games

DPI&F have produced some informative educational games to raise awareness of fishing and aquaculture issues, illustrated by popular cartoonist Paul Lennon. The board game *Fitzie's Family Fish Farm* is a playful way for children (and their parents) to learn about the issues associated with pond aquaculture of fish and prawns. The DPI&F Website¹¹ also houses memory card games that give messages about proper animal care that could be adapted to a variety of other applications. These games do not need to be web based.

4.12 Capacity building

'Building and strengthening capacity of researchers as well as Indigenous peoples and communities through research is a vitally important factor to consider and involves considerable effort and due consideration in the planning of research.'

Yin Paradies in CRCATH 2002.

¹¹ www.dpi.qld.gov.au/extra/animalwelfare/quizintro.html

In discussing community-based management of marine resources in the Torres Strait, Kwan et al. (2001) identified an urgent need for ‘measures that will build local capacity to manage resources, and provisions to institute a community resource management process that will provide for sustainable use of a broad range of culturally significant resources. These measures should be aimed at: increasing community awareness of potential impacts on local natural resources; acknowledging traditional knowledge and providing training for environmental planning’. Sheppard (2004) also recommended that capacity building be focussed towards holistic natural resource management systems developed at the community level.

Several objectives of the CRC Torres Strait program specifically address the importance of capacity building:

- o To improve the capacity of Torres Strait communities to understand and utilise research results for enhanced economic and social development.
- o To improve the capacity of researchers to engage with Torres Strait communities in the design and conduct of research and in the transfer of research results.

4.12.1 Community engagement

An important part of learning in Indigenous cultures is by ‘doing’ (Thomsen 2003), as it is in all adult learning. The clear benefits to Torres Strait Islanders who are actively engaged in research and monitoring projects include:

- o Understanding the research process and objectives.
- o Understanding the relevance of the research to their own lives.
- o Understanding resource management and how research benefits the management process.
- o Capacity to participate in research and monitoring activities, and potential employment in these fields.
- o Understanding and capacity to manage natural resource in a sustainable manner.
- o Potential financial remuneration.

Researchers also benefit through such partnerships by:

- o Increased cultural awareness.
- o Opportunities to incorporate traditional knowledge.
- o Relationship-building with local communities.
- o Availability of on-ground research support.

Researchers can engage community members at different levels. Examples include the volunteer input of school students and staff in seagrass monitoring and beach cleanups at Thursday Island (see Case Study 21), the training and employment of local divers to assist with AIMS sponge aquaculture trials at Masig Island (see Case Study 24), employment of local fishers to gather data (e.g. on crayfish and bêche-de-mer) on their own vessels or as research assistants onboard CSIRO and AIMS research trips (see Case Study 25), and employment of Islanders to assist with capture of turtles for a JCU project (M. Hamann and J. Grayson, JCU, pers. comm.).

Preferably, researchers should provide enough information and training to Islanders to allow them to then train others in the community. Mark Hamman of JCU has trained several Islanders to determine reproductive stages of female turtles. The benefits to the research have been that this information can be recorded in Mark's absence, and these Islanders can now explain the technique and the importance of the information to others (M. Hamann, JCU, pers. comm.)

4.12.2 Employment

Given the high rate of unemployment within Island communities, it is important that researchers provide opportunities for local people to benefit from research projects if possible. However, some researchers have found it is difficult to sustain ongoing commitment of employees in the absence of the researchers to maintain enthusiasm. To overcome this requires prior planning and a commitment by researchers to supervise and mentor employees.

The Community Development Employment Program (CDEP) is one avenue for employing local people to assist with research activities, although, it may be more appropriate to use organisation human resource channels instead.

Employment of Islanders must be included in the planning stages of the research project in consultation with the relevant Island Chairs and community representatives such as TSRA, and budgeted accordingly.

Case Study 23: Engaging a local

Sponge aquaculture project. CRC TS Task T1.6a

Researcher: Dr Alan Duckworth and Libby Evans-Illidge (AIMS)

In July 2004 Torres Strait Islander, Stan Lui, now the Indigenous Aquaculture Liaison Officer for DPI&F, joined an AIMS field trip. The trip involved underwater surveys of sponges in the waters around Erub, Masig, Badu and Thursday Islands, with shore visits to the Island communities. Stan acted as contact person on shore visits, and facilitated contact with key community members at Erub, resulting in an invitation to a local Councillor to dine on board the research vessel and hear about the project. Informal presentations to staff of TSRA and ICC at the beginning and end of the visit were also well received.



Stan Lui processing sponges on an AIMS field trip. Photos AIMS

Case Study 24: Memorandum of Understanding (MOU)

Sponge aquaculture project. CRC TS Task T1.6a

Researchers: Libby Evans-Illidge, Dr Alan Duckworth and Carsten Wolff

To enable local collaboration in the experimental sponge aquaculture project at Masig Island, AIMS negotiated and entered into a Memorandum of Understanding (MOU) with the Yorke Island Council. The MOU formally establishes the Council's role as collaborators in the research project, the conditions for local employment and participation in the project, and the responsibilities of each party.



Samson Lowatta from Masig Island checks sponges as part of the sponge aquaculture project. Photo AIMS.

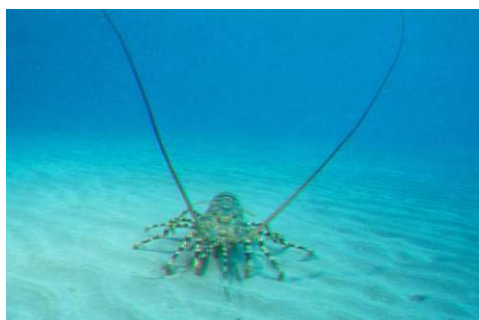
The AIMS project budget accommodated the cost of updating qualifications of five Masig Islander divers to meet AIMS' OH&S standards for fieldwork, including flying the group to Cairns for commercial dive medicals. The newly qualified Islanders also received 'on the job' training in all aspects of the project. They were paid through the Community Development and Employment Program (CDEP) with top-up salaries from the project budget (as negotiated and agreed in the MOU). These divers were able to fully participate in the project, with responsibilities in monitoring and measuring experiments between AIMS visits, and organising logistics.

Case Study 25: Partnerships in cray surveys

Torres Strait lobster surveys. CRC TS Task T1.3

Researchers: Dr Yimin Ye, Tim Skewes and Darren Dennis (CSIRO)

Since 1990, CSIRO researchers have conducted annual surveys of the relative abundance of rock lobsters in Torres Strait and PNG waters, funded by AFMA, ACIAR, PNG NFA and DAFF. In the 1998 survey, a seven-week collaborative program with PNG NFA and CSIRO employed two Torres Strait Islanders who caught lobsters and collected size-frequency data.



Rock lobster. Photo CSIRO

Between 1997 and 1999, CSIRO supported a Torres Strait cadet program. Cadet, Douglas Jacobs, participated in lobster surveys during this period, and spent many days in Torres Strait communicating the design and results of the surveys and stock assessment to interested Islanders. He also ran a field program with Year 12 students from Thursday Island High School (Douglas was subsequently employed by TSRA). In 1996, 1998 and 2002, Philip Polon from PNG NFA also participated in the field surveys and provided results to PNG (D. Dennis. CSIRO. pers. comm.).

4.12.3 Training

The TSRA supports a community capacity building program through Island visits to increase awareness of the Torres Strait Fisheries Consultative Structure, including an awareness of the advisory group roles and the importance of the Community Fisheries Representatives in the process. The program also aims to make relevant information and publications available to the communities. This could include research outputs, presented in an appropriate user-friendly format (K. Bedford, TSRA, pers. comm.).

Several research projects have provided training opportunities for Torres Strait Islanders in a range of activities such as seagrass monitoring (Case Study 21), lobster surveys (Case Study 25), diving and aquaculture techniques (Case Study 24).

There is also room for capacity building for researchers working in Torres Strait, particularly in the area of cultural awareness, and in communication, presentation and media skills. Basic cultural awareness training has been delivered through internal induction workshops held on Thursday Island and in Townsville, for CRC Torres Strait Program, Project and Task Leaders, and Task Associates. In addition 30 CRC Reef/Torres Strait researchers attended a one-day course offered by the JCU School of Indigenous Australian Studies (SIAS) in Townsville. This type of training is only an introduction and the only real way to build cultural awareness is by being 'on country' with Traditional Owners and community members (CRC Reef Indigenous Working Group, Internal Meeting Minutes, March 2005).

Education and training guidelines for researchers

- o Contact school principals and the relevant community Councils to organise school visits.
- o Consider how research information could fit into the school curriculum.
- o Be imaginative; include role play, interactive activities and art where possible.
- o Take relevant educational material where possible.
- o Involve Islanders in research where possible.
- o Where possible, employ Islanders.

4.13 Advisory committees and task associates

4.13.1 Advisory committees

A popular consultation practice used in many natural resource management systems is to establish advisory committees made up of technical experts and representatives of different organisations and communities to provide advice on issues. This structure is true of the management process in Torres Strait, and Torres Strait Islanders are important members of these committees. Advisory committee meetings provide a good forum for identifying research needs in the community, for developing and fine-tuning research proposals, for giving and receiving

information on different topics, and for researchers to provide updates on relevant work. In many cases researchers are committee members, so this practice will be part of their role.

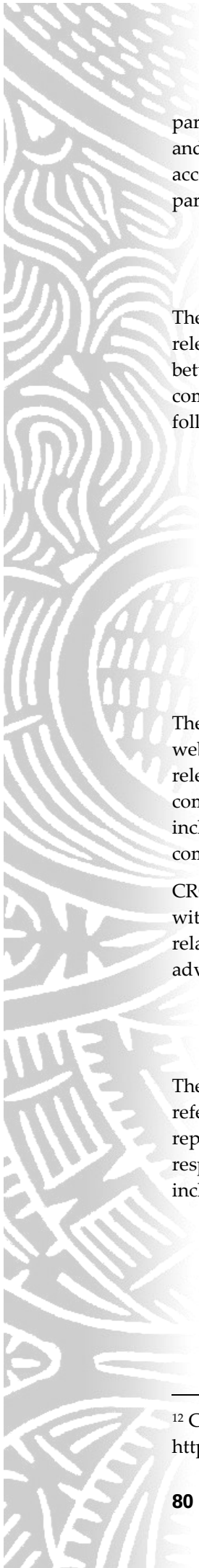
A joint Commonwealth/State body, the Protected Zone Joint Authority (PZJA) is responsible for managing commercial and traditional fishing in the Torres Strait Protected Zone and designated adjacent Torres Strait waters (TSPZJA 2002). AFMA operates a Torres Strait Fisheries Management Advisory Committee (TSFMAC) as an advisory and liaison body for the Torres Strait commercial and traditional fisheries which advises the PZJA. They in turn receive advice from the Torres Strait Scientific Advisory Committee (TSSAC), made up of representatives from management agencies, Islanders and scientific experts from CRC Torres Strait and Fisheries Working Groups. There are established Working Groups for the Torres Strait prawn, tropical rock lobster and finfish fisheries. The Torres Strait Fisheries Working Group is the working group for all other fisheries managed by the PZJA including pearl shell, trochus, bêche-de-mer, crab and traditional fisheries for turtles and dugong (Taylor et al. 2004). The working groups include strong representation by Torres Strait Islanders with Community Fisheries Representatives from all the communities in Torres Strait sitting on these working groups and therefore are an ideal forum for discussing potential research projects of direct relevance to Islanders.

Meetings of the TSSAC, TSFMAC and Working Groups are generally held on Thursday Island or in Cairns, with a strong interest in setting research priorities and reviewing the outcomes of CRC Torres Strait research projects. These meetings provide a potential forum for researchers to exchange information with traditional fishers through presentations and other communication products. Opportunities for researchers to address these meetings can be organised through the TSRA Fisheries Coordinator and AFMA staff.

Some Fisheries Working Groups have worked closely with fisheries managers and scientists for some time and are familiar with the technical terminology and current issues. However, communication styles should be reviewed on a regular basis to avoid becoming too technical, particularly if there are new members (J. Marrington, AFMA, pers. comm.).

As part of its commitment to providing opportunities for Indigenous involvement in aquaculture projects, DPI&F established the North Queensland Indigenous Aquaculture Working Group (NQIAWG) in 2002 coordinated by Chris Robertson (DPI&F). The 12-member group helps Indigenous communities in the Torres Strait, Cape York and the Gulf areas, to develop aquaculture ventures where feasible and appropriate, based on the recommendations of an aquaculture scoping study. The working group meets on a regular basis and is keen to strengthen its links with CRC Torres Strait research through the aquaculture extension task (CRC TS Task T1.7). The appointment of an Indigenous Aquaculture Extension Officer (Stanley Lui, see Section 4.2.4) to work with communities that are interested in establishing an aquaculture project, has already benefited the CRC Torres Strait sponge aquaculture research project. Stanley has provided an important link between researchers and the Masig Island community, and his feedback has helped guide public contact in this task.

It is important that researchers recognise that participation in an Advisory Committee does not come without costs if travel and time to participate is required of members. This will be especially the case for Islander representatives where



participation is not covered by an employer, as is the case for many researchers and government workers. Researchers should be willing to pay for travel, accommodation and other costs, and do so in advance rather than expecting participants to pay for these costs and be reimbursed.

4.13.2 Task Associate Program

The CRC Torres Task Associate Program assigns one or more Task Associates from relevant member organisations to each research task, to promote communication between the researchers and the research users – industry, managers and community members. CRC Torres Strait Task Associates are drawn from the following organizations:

- o AFMA.
- o TSRA.
- o National Oceans Office (NOO).
- o DPI&F.
- o Torres Strait Prawn Entitlement Holders.
- o Ports Corporation of Queensland.
- o Masig Island Council.

The roles of Task Associate and Task Leaders are outlined on the CRC Torres website¹². The benefits for Task Associates include: ensuring the research remains relevant to the user's needs; continuous updates on the research; and the ability to communicate this to their representative group. For the researcher, the benefits include improved understanding of the application of their research, communication links to end-users, and potential guidance with field logistics.

CRC Torres Strait researchers have a responsibility to maintain regular contact with their Task Associates to communicate research progress. A good working relationship with Task Associates will provide the researcher with feedback and advice on the application of the work and communication opportunities.

4.13.3 Reference groups

There is a growing trend to establish a reference group to which researchers can refer. Reference groups are usually comprised of a small group of people who represent the various stakeholders with an interest in the research and are respected members of the community. A reference group can play different roles including:

- o Providing advice to the researcher.
- o Scrutinising research outputs, such as identifying culturally sensitive material.
- o Providing an avenue for communication of research information to the wider community represented by those on the reference group.

¹² CRC Torres Strait Task Associates Website address is <http://www.crctorres.com/research/taskassociate.htm>.

For such groups to work effectively, it is important that negotiated terms of reference are agreed upon between the researcher and those on the reference group. These terms may include identification of members of the group who can review proposed publications on behalf of the reference group, identify contentious issues and discuss these with senior elders, and give permission for publication. This process may circumvent long delays in publishing research information if permission cannot be gained from everyone on the reference group.

Advisory committee and Task Associate guidelines for researchers

- o Link advisory or reference group activities with existing advisory committees and working groups where possible. Contact the relevant organising organisation to find out when meetings are and how research information can be presented to these groups.
- o Maintain regular communication with Task Associates and reference group members.
- o When developing a reference group, negotiate clear terms of reference with members.
- o If possible, agree upon certain members of a committee or reference group who can review proposed publications and give permission for publication on behalf of the group.
- o Provide advance payment for costs incurred by committee members so they are not disadvantaged.

5 EVALUATING COMMUNICATION ACTIVITIES

For researchers to know if they are communicating their research effectively and appropriately to an audience they need to evaluate their communication activities and outcomes. Evaluation is the process of collecting information and using it to determine progress towards goals and objectives (DUAP 2001). Evaluation provides information on the efficiency and effectiveness of communication activities and direction for improvement. Evaluation of communication activities can also provide information that may meet reporting requirements for funding agencies. Evaluation is particularly important for researchers who are working in a different cultural environment and/or are applying less conventional communication techniques. Evaluation does not need to be onerous, and many researchers will already be evaluating communication activities, perhaps without realising it.

5.1 Why evaluate?

Evaluation is useful at all stages of a research project and will help to review and adapt research and communication objectives and meet demands for program effectiveness and accountability by:

- o Guiding communication planning, helping to develop objectives, identify priorities and allocate resources cost-effectively.
- o Identifying strengths and weaknesses, reasons for these, and areas for improvement.
- o Assessing the impact of the activities on the target audience – did it make a difference?
- o Demonstrating transparency and accountability, through an accurate record of performance indicators.
- o Improved public awareness and support.
- o Strengthening research partnerships, based on shared understanding of responsibilities, agreement on common goals, and enjoyment of the benefits of the evaluation (DUAP 2001).

5.2 Evaluation process

Evaluation is an ongoing process, which should be integrated into all stages of a research project including: defining the objectives; planning stage; conducting the research; communicating the outcomes of the research; and reviewing the success of the research and future research needs (the start of a new process). This is referred to as the 'Evaluation Loop' (DUAP 2001).

There are various types of evaluation styles suitable for different communication activities during a research project. All evaluation processes require identification of clear, measurable objectives for the communication activities.

A *needs assessment* focuses on defining communication objectives, identifying target audiences (eg. fisheries managers, traditional fishers, funding bodies), thinking of appropriate communication tools and the resources needed to implement the

program. Communication planning is often ignored by researchers, but it is an important process and is not hard to do. CRC Reef Research Centre developed useful *Communication Planning Guidelines for Researchers* which encourage researchers to think about communication needs at the initial planning stage of a research task.

A baseline study establishes a benchmark on which to assess the impact of a communication activity. What is the current state of knowledge of the research amongst the intended audience, and between different stakeholder groups? Are there issues and attitudes that may affect how the audience may respond to research information? Are there particular protocols that need to be observed? What sort of communication products have been used effectively in the past?

Formative evaluation provides information for management, improvement and modification of communication activities 'along the way'. This process might involve revising a presentation in response to comments by the audience, to make it easier to understand (eg. Case Study 10). Where possible, researchers should show a draft of interpretive material to an intended audience member, and be prepared to make suggested changes. Researchers will need to be flexible to be able to respond to formative evaluation.

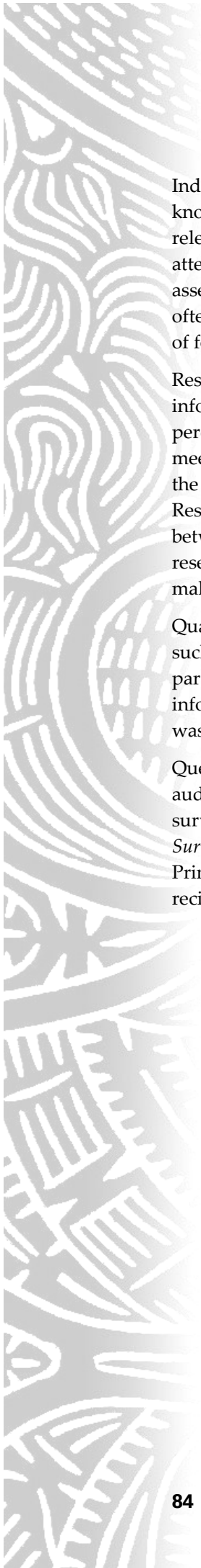
Summative evaluation involves an assessment of the overall success or failure, and impact of a communication activity or program, asking questions about the outcomes (were the objectives achieved?), participant response and cost-effectiveness. This type of evaluation may be a requirement of the research funding, and could provide direction for future research activities.

A follow-up study evaluates the long-term effects of a program to identify what worked and what could be done differently. This style of evaluation is more appropriate for large-scale communication and community consultation activities, and requires specialist skills. For example, following the extensive public consultation process conducted by the Great Barrier Reef Marine Park Authority (GBRMPA) during the Representative Areas Program the Authority engaged specialist consultants to evaluate the consultative process. The resulting report (Futureye 2004) identified significant merits and shortfalls in the process and recommended actions to address these, focussed largely on strengthening community engagement (Futureye 2004). As demonstrated in this report, a critical component of successful evaluation is the engagement of stakeholders (Kelsey et al. 2005).

5.3 Performance indicators

Indicators are evaluations tools. An indicator will be a particular type of information gathered to measure progress towards identified objectives. A good indicator will be:

- o Relevant to the objectives. For example, for a public meeting to increase awareness in an Island community, the numbers of people attending, the type of questions asked, and the post-meeting enrolment of volunteers are relevant indicators.
- o Measurable and reliable. The best approach is to build in simple data collection as part of any communication activity. Data collection could be a measure of the numbers of printed products distributed or taken away at a



meeting, the level of response to a questionnaire, or the numbers of positive comments received at a workshop.

Indicators can be quantitative or qualitative. For example, researchers may want to know if their communication is readily understood by the audience, and if it is relevant to everyday lives. Quantitative data, such as the number of people attending a public meeting, may not answer this question. In this case, qualitative assessment may provide a better indication of success. Qualitative assessment is often based on perceptions of stakeholders, comments from people, and the nature of follow-up questions.

Researchers in natural sciences may be less familiar with assessing such subjective information. It is not easy to collect, though to some degree it is intuitive. A perceptive person will know if a presentation worked well or if the community meeting was well-received, simply by the attitude and response of the participants, the questions asked, and the subsequent flow of information into the community. Researchers communicating with different cultures will need to distinguish between responses that are based on culture and those that are a response to research information. The greater the cultural understanding, the easier it will be to make these distinctions.

Qualitative information is often sought through questionnaires and interviews, such as a small questionnaire used successfully by AFMA to assess the response of participants to community workshops in Torres Strait (see Case Study 26). The information gained confirmed the perceptions of the organisers that the workshop was a success.

Questionnaire design needs careful thought to ensure that it is appropriate for the audience and that the questions are unambiguous. A good example of a short survey is one developed by DPI&F to evaluate a new magazine. *'The 10 Second Survey'* contained only five questions that were answered with a tick in a box. Printed in a postcard format with return address and postage paid information, recipients could complete them easily and place them in the post.

Case Study 26: Evaluating a workshop

Bêche-de-mer fishery sustainability workshop. CRC TS Task T1.13

Researchers: Sascha Taylor (AFMA) and Tim Skewes (CSIRO)

To evaluate a workshop conducted by AFMA & CSIRO with Torres Strait Islander commercial fishers, AFMA staff asked the participants to complete a short questionnaire at the workshop. The workshop introduced fishers to new regulations for the bêche-de-mer fishery in Torres Strait, and explained these new regulations. The workshop included presentations, interactive activities and discussions.

Of the 24 respondents to the questionnaire (males, mostly involved in fishing and diving), most indicated that they found the workshop informative or very informative with only one being neutral. Participants also enjoyed the interactive components. While all respondents felt that the information was relevant to them, some (9) thought that there was too much information. This information will be helpful in planning future workshops with community fishers.

Torres Strait Bêche-de-mer (sea cucumber) Sustainability Workshop 2005
A Collaborative Approach

EVALUATION FORM (Please tick appropriate box ☐)

1. I found the workshop: ☐ Very informative ☐ Informative ☐ Neutral ☐ Uninformative ☐ Uninteresting

2. The amount of information presented at the workshop was: ☐ Too much ☐ Just right ☐ Not enough

3. Did you find the information provided to be relevant to your needs? ☐ Yes ☐ No

4. The workshop was presented so it was: ☐ Easy to understand ☐ Difficult to understand

5. My knowledge of the research undertaken in this fishery was: ☐ Poor ☐ Fair ☐ Good ☐ Excellent

6. The workshop did assist me to understand the nature of research undertaken and the reasons for management advice that is offered for this fishery: ☐ Yes ☐ No

7. Do you think research has assisted in this fishery? ☐ Yes ☐ No

8. Should research incorporate traditional knowledge? ☐ Yes ☐ No

9. The workshop did allow me to provide comments: ☐ Yes ☐ No

10. What is your gender? ☐ Female ☐ Male

11. What is your age in years? years

12. Please state the work you are mostly involved in:

13. Other comments:

Evaluation guidelines for researchers

- o Evaluate communication activities at all stages of a research project, and be prepared to make changes if necessary.
- o Look at other communication products and styles.
- o Researchers should familiarise themselves with the culture of the community with whom they are communicating, and plan communication materials to suit them.
- o Identify indicators for evaluation that are relevant, measurable and reliable.
- o Use a combination of quantitative and qualitative indicators to evaluate progress towards achieving communication objectives.
- o When using questionnaires and surveys – keep them simple.
- o Be prepared to seek honest feedback from peers.
- o Involve the stakeholders in the evaluation process – and act on their advice.
- o Publicise successes and work on the failures.

6 TRADITIONAL KNOWLEDGE AND INTELLECTUAL PROPERTY RIGHTS

Intellectual Property (IP) and traditional knowledge, and its use and abuse by non-Indigenous researchers and workers in the past, is a difficult issue. This report is not the forum to discuss these issues and formulate resolutions to this complex and difficult issue. However, some of the issues related to IP and traditional knowledge are discussed here to help researchers understand why problems have existed in the past (and probably will do so in the future). An understanding of the issues may help the situation by encouraging researchers to use improved approaches and subsequently better relationships can be built in the future. An understanding of what Intellectual Property and traditional knowledge is, by both researchers and Islanders will also be essential to ensure better working relationships between the parties.

Examples of traditional knowledge about medicinal plants and development of million dollar drugs by large pharmaceutical companies from these plants emphasize the potential breadth of the problem. Knowledge of the plants medicinal qualities is considered traditional knowledge and as such could not be considered IP. However, an active medicinal compound identified in the plant could be patentable. IP, and all financial benefits from it, would reside with the owner of the patent. In this case, the Indigenous people who hold the traditional knowledge that may have prompted the initial interest in the plant would gain little, or no benefit. There are other examples of information about traditional Indigenous practices reported in research publications being used by third parties in ways that have been detrimental to Indigenous people. This highlights associated problems with lack of control of information for Indigenous people once it has been provided to researchers.

Faced with such experiences, it is little wonder then that Islanders are protective of their traditional knowledge. Indigenous groups want more control over research carried out on their people and their Country, and they are increasingly looking to the westernised IP legislative system to achieve this (Richards 1998). However, IP laws in Australia are out of step with Indigenous culture and traditional knowledge. In light of this, researchers and Islanders need to be mindful of these issues when using any information that may be considered to be traditional knowledge.



Ngokah Dhanghal (Young Female Dugong). By Billy Missi.

'Dugong is a traditional food of Islanders since time began. It is a totem for clans in certain tribes. Dugong is a very sacred mammal, it has ties to legends and stories. Also, certain hunting methods apply when catching them. They also move around to different feeding grounds to try and put the hunter off their trail.' (B. Missi, Artist, pers. comm.)

Ngokah Dhanghal reproduced with permission of the artist.

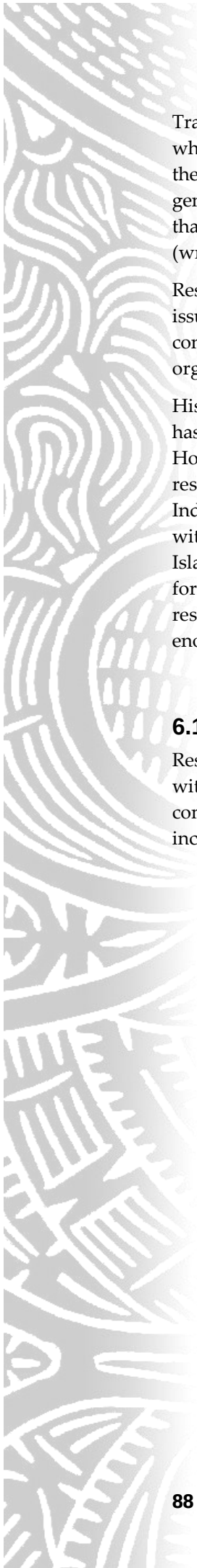
Traditional knowledge covers many aspects of everyday life for Islanders. The information that can be considered traditional knowledge has developed over centuries from the need by Indigenous people to be self sufficient in remote areas, and is passed from generation to generation. Traditional knowledge includes:

- o Traditional stories, art etc.
- o Hunting, fishing and gathering.
- o Agriculture and husbandry.
- o Preparation and distribution of food.
- o Location, collection and storage of water.
- o Medicinal requirements.
- o Climate and meteorology.
- o Navigation at sea and on land.
- o How to make and use clothing and tools.
- o Construction of shelter.
- o Natural resource management of the local area (Nakashima and Ellias 2002).

Intellectual Property (IP) is a broad term describing different kinds of property rights and outputs from intellectual activity in the fields of science, literature and art (Janke 1998). IP rights were developed with the advent of the printing press (in the late 15th Century) to protect authors from unauthorised copying (Ricketson 1984) and have since been broadened to include patents and trademarks to protect inventors and business enterprises. To this day, IP legislation still reflects these early beginnings by concentrating on protecting authors of printed and recorded material and inventors of ideas. This legislation has been developed by western society to protect westernised ideals and needs, and for many reasons, fails to adequately account for Indigenous traditional knowledge. The conflict between Indigenous and western cultures with respect to traditional knowledge and IP are described in Table 3.

Table 3: Conflict traditional knowledge and IP.

<u>Traditional knowledge</u>	<u>Intellectual Property</u>
Oral, art and dance	Written or material records (patents, copyright ©, trademarks TM)
Communal responsibility	One or few owners (authors)
Timeless, accumulated over generations	Valid for defined period
Culturally based	Economically based
Generally not transferable	Transferable
Holistic approach. All aspects of cultural heritage are inter related	Generally defined into separate categories with no links



Traditional knowledge to a large extent lies in stories, dance and art, much of which is not formally recorded, therefore, it is not formally recognised as IP under the current Australian legislation. Traditional knowledge is passed from generation to generation, and is the responsibility of the whole community, rather than individuals. IP laws protect the author/s or creator of recorded material (written, photographed etc) through copyright or patents.

Researchers need to familiarise themselves with IP and traditional knowledge issues so they can answer questions if asked. They should also be aware of contractual agreements that they enter into with funding agencies and research organisations that generally include sections on IP.

Historically, the legal and ethical gap between the IP and traditional knowledge has resulted in poor relationships between researchers and Indigenous people. However, IP law may not adequately meet the needs of Indigenous people with respect to protection and control over their traditional knowledge. Researchers and Indigenous people need to look beyond IP to ensure ethical research collaborations with benefits to all parties. A formal written agreement brokered between Islanders and researchers may be the first step in such relationships. While the formal aspects of such written agreements raise a lot of debate, the usefulness of a research agreement for the smooth progress of a research project may be enormous.

6.1 Research Agreements

Research agreements need to be developed on a case-by-case basis in collaboration with Islanders. In many cases, agreements will be negotiated with more than one community group for a single research project. Information that should be included in a research agreement to ensure it is useful includes:

- | | |
|------------------------------------|---|
| o Contacts | Agency, supervising scientist and researchers. |
| o Dates | Expected start and end dates of research as well as anticipated visits to Torres Strait. |
| o Funding source | Provides information on where interest in the research outcomes derives. |
| o Research summary | In appropriate language, a short summary of the research sufficient to provide Islanders with a sound knowledge of why the research is important, aims and expected outcomes. |
| o Research methods | In appropriate language, detail how the research will be carried out. |
| o Participants and consent process | Who is likely to be involved in the research, and how will consent of these participants be gained. |

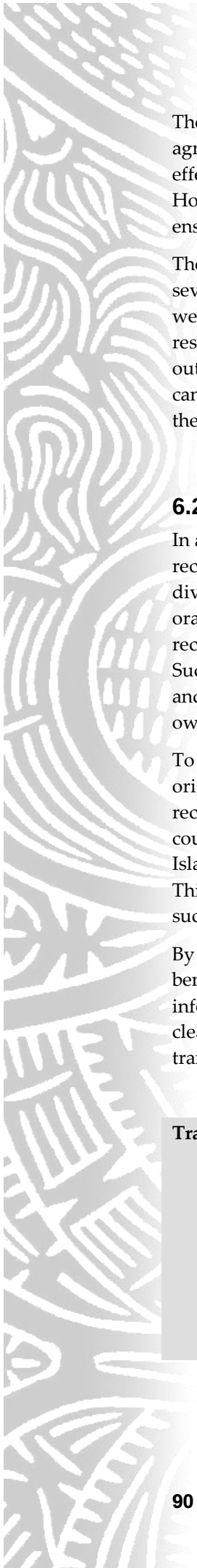
- o Risks and benefits Realistic explanation of potential risks and benefits to be gained. Researchers should be honest about their own anticipated benefits from the research.
- o Interpretation of results How, and what data will be analysed and communicated both to Islanders and the wider community (scientific and non-scientific).
- o Storage of data Where will originals and copies of all information collected for the research project be stored? What are the provisions for providing data onto other researchers in the future (who are not covered under the agreement)?
- o Confidentiality Agreement on what information collected for the research may be published and in what format. If information is considered of cultural significance, how will this information be protected?
- o Communications How will information be reported back to Torres Strait communities and how often? What publications are expected from the research? How will Islanders be involved in the development of these publications?
- o Signatures All interested parties need to sign the agreement. Consultation with a number of different groups will be required and in some cases different agreements brokered with different groups.

Other useful information to include:

- o Re-negotiation conditions Under what circumstances would the agreement be terminated or re-negotiated?
- o Responsibilities of supervisors and researchers How will supervisors ensure that researchers involved in this project conduct themselves appropriately?

Confidentiality agreements included in a research agreement may be a potential solution to IP and traditional knowledge issues. Information of a potentially sensitive nature can be provided to researchers on the (written) agreement that the information will remain confidential. Such agreement provides control to Indigenous people over traditional knowledge without relying on IP regulations.

In most cases, researchers will develop these agreements in association with their relevant research organisation. They may need to consult lawyers to ensure the document meets the objectives of the researcher and Islanders. Negotiating such agreements will take time and researchers will need to consider this when planning their research. It is essential that researchers remember that some Indigenous people may not have easy access to lawyers in their negotiations.



There are several research projects that are very positive examples of research agreements negotiated between researchers and Indigenous people resulting in effective research outcomes. Melissa Nursey-Bray's research agreement with the Hope Vale Aboriginal Community was very detailed but was very useful in ensuring transparency of the research process (Nursey-Bray 2003).

The experience of Jillian Grayson in negotiating individual agreements with several Torres Strait Island representative groups highlighted the strengths and weaknesses in the process. Her experience showed the need to be flexible with respect to the research design to ensure that all parties are happy with the outcomes. It has also shown that the process of negotiating a research agreement can actually encourage Indigenous people to participate in the research as they feel they have control over the outcomes (J. Grayson, JCU, pers. comm.).

6.2 Keeping Place

In a westernised society there is much importance placed on having information recorded in physical forms such as photographs, recordings or text. This is divergent from Indigenous ways where much information was communicated orally. In the process of carrying out research in Torres Strait, researchers will be recording information that may be of benefit to Torres Strait Islanders in the future. Such recorded information has historically been stored at universities and the like, and is not easily accessible to Islanders. This gives Islanders no feeling of ownership or control over this information.

To overcome this, researchers are encouraged, if possible, to offer copies or originals of recorded data and information (such as photographs, video, audio recordings, records) to the subjects of those recordings, the relevant community council if relevant, and/or offered to the Gab Titui Cultural Centre at Thursday Island for historical benefit. These repositories may be known as a 'Keeping Place'. This will be especially pertinent for recordings that may be of a sensitive nature, such as interviews with elders discussing culturally sensitive issues.

By having access to, and some control over, research information Islanders can benefit from Torres Strait research. For example, they may be able to use this information at some time in the future in negotiations. Additionally, there will be clear understanding of what information has been collected, demonstrating transparency and honesty by the researcher.

Traditional knowledge and IP guidelines for researchers

- o Respect traditional knowledge.
- o Understand the shortfalls in intellectual property legislation in protecting traditional knowledge.
- o Negotiate research agreements with relevant Indigenous people or groups.
- o Provide copies and/or originals of images, audio recordings, data and other information to Islanders.

7 SUMMARY AND RECOMMENDATIONS

This report describes many guidelines, tools, tips and suggestions for researchers working in Torres Strait, and at first glance this may seem overwhelming. There is however, an over-riding theme that is, in essence, just common-sense and 'good pasin'. This theme is respect. Respect for people, culture, beliefs, country and views. This is evident in the guiding protocols and communication tools that are detailed in this report. It is through respect that relationships will be built and partnerships developed. The entire research process will then become more effective, efficient and beneficial to both researchers and Torres Strait Islanders.

Respect must be earned and developed over time. It will require some effort by researchers, and this effort will not be accredited in the short-term as a measurable output that can be reported in a journal article or milestone report. However, the benefits in the longer term will be enormous, to both the research project, and to Torres Strait Islanders and future research in the area.

The principles and protocols described in this report should become the ethos for all researchers working with Torres Strait Islanders, and guide them in all they do in Torres Strait. The communication and extension tools should be viewed as accessories for meeting these guiding principles. No one tool should be considered as the definitive answer to all communication requirements. The communication and extension tools are best viewed as a toolbox from which researchers can select something that suits the individual situation, audience and objective. These tools should just be the starting point - researchers will need to modify and combine tools to best fit the situation and fully meet their communication requirements at different stages of the research process.

It is worth noting that many of the principles, guidelines and communication tools reported here are not exclusive to Torres Strait Islanders or even Indigenous people. Much of the information is also applicable to other stakeholder groups that are now more involved with research and consultative management processes. Researchers may benefit by applying some of the techniques adopted for Torres Strait to their other research endeavours.

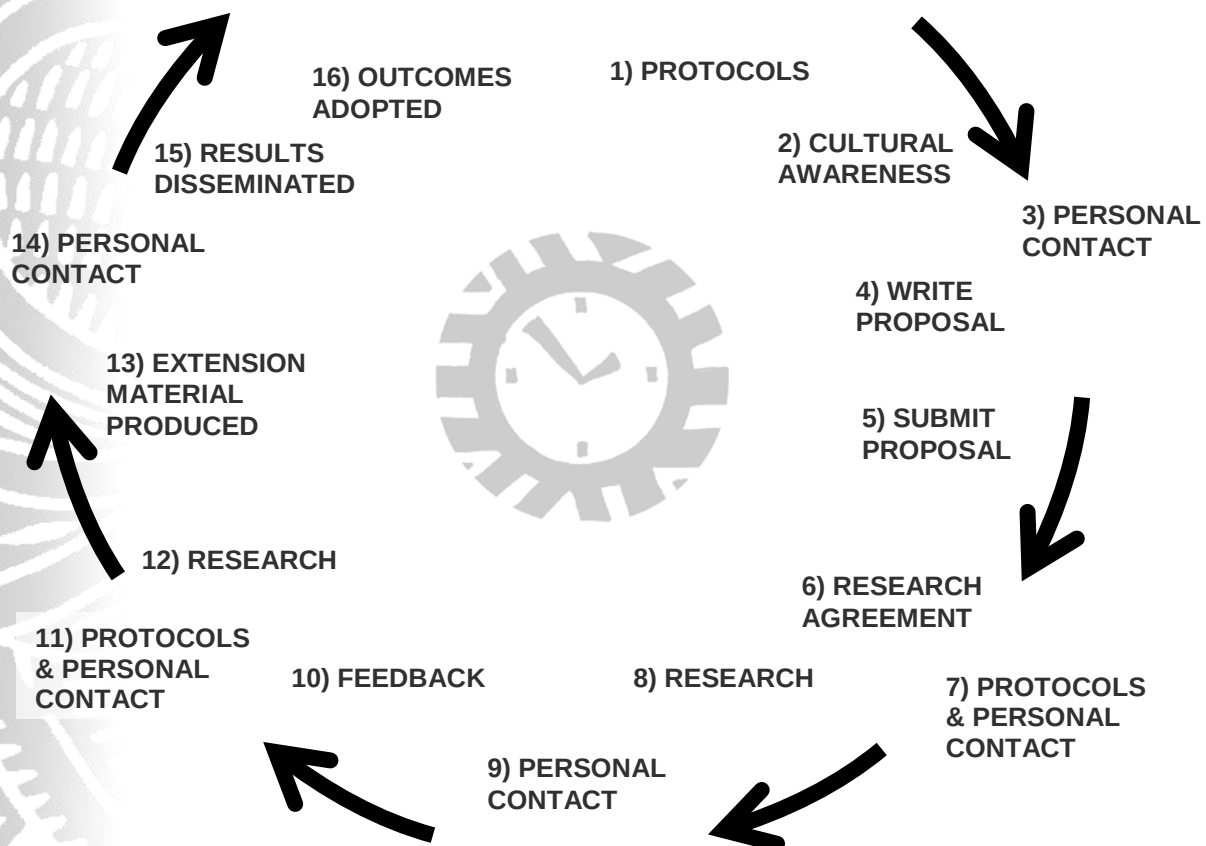
This approach will pose challenges for funding agencies when reviewing research proposals that include time to build relationships, negotiate and collaborate with Torres Strait Islanders. Without the support of funding agencies to recognise these activities as legitimate requirements to the research framework it will be difficult for researchers.

There are challenges also for researchers to look at research from a new perspective - from a Torres Strait Islander's point of view. Why should Torres Strait Islanders support research if they do not see clear benefits to their everyday life? To overcome this barrier, researchers need to get to know Torres Strait, the unique cultures and people of this region and what their needs are. Then by addressing those needs, research and communications will be more effective.

7.1 Recommendations

This report lists numerous protocols, guidelines and tools that we recommend researchers consider when conducting any research in Torres Strait. These recommended actions will not apply to every research situation. Each situation needs to be considered on an individual basis, and the relevant protocols and guidelines suitable for that particular set of circumstances followed.

To guide researchers in this process we recommend that researchers follow a step-by-step timeline for each research project, in which relevant protocols and guidelines suitable for that particular set of circumstances are adopted. The chronology of the different steps in the figure below emphasises the importance of sustained communication throughout the process. This will promote more effective transfer of research information and benefits for both researchers and Torres Strait Islanders.



Recommended timeline for conducting research in Torres Strait. Details of the purpose, suggested actions and relevant report sections for each step are provided in the text below.

7.1.1 Step through the research process

Step 1, 7 & 11) Protocols

Timing: Before submitting research proposal, and revisited throughout the research project.

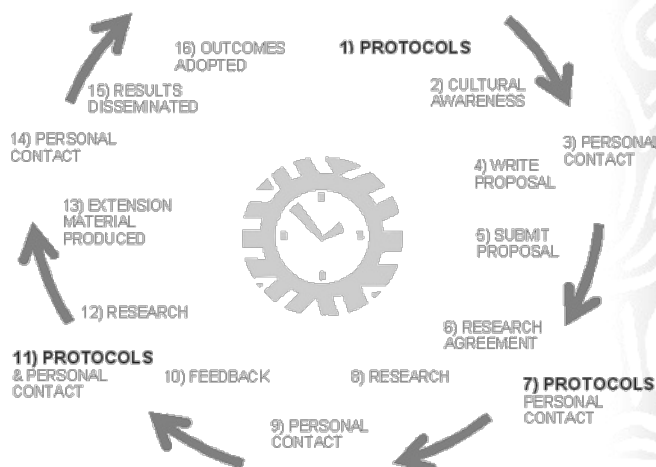
Relevant Section: Chapter 3.

Purpose:

- o Identify ethical guidelines for conducting research in Torres Strait.

Action:

- o Researchers should familiarise themselves with principles and protocols for research in Torres Strait.



Step 2) Cultural awareness

Timing: Before submitting research proposal.

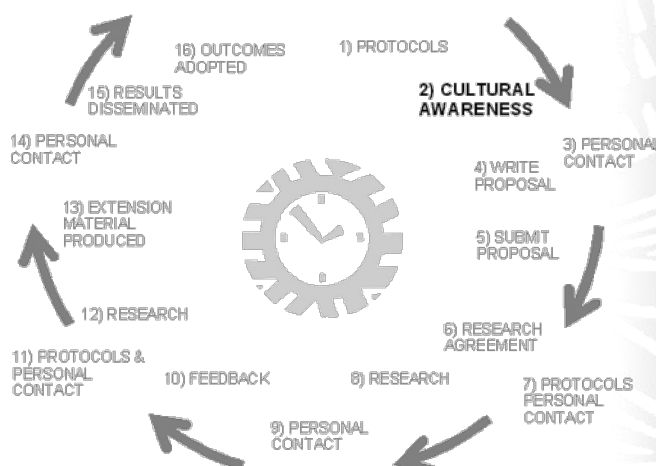
Relevant Section: Chapter 4, Section 2.

Purpose:

- o Develop general understanding of Torres Strait culture.
- o Identify preferred methods of engaging with individual communities in Torres Strait.
- o Identify issues of concern for Torres Strait Islanders.
- o Identify potential risks and benefits to research project.
- o Identify logistic problems and solutions.

Actions:

- o Do a cultural awareness course.
- o Visit region of interest if possible. Read about the area.
- o Discuss research with Information Contacts, community councils, Traditional Owners, relevant prominent Islanders and managers.



Step 3, 7, 9, 11 & 14) Personal contact

Timing: Ongoing throughout research project.

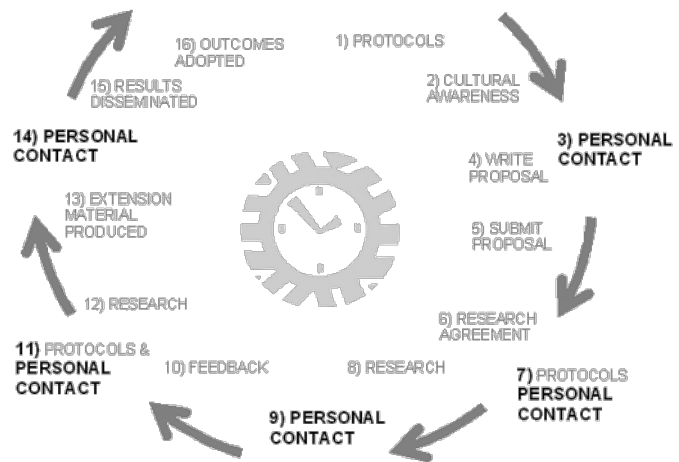
Relevant Section: Chapter 4, Section 2 & 13.

Purpose:

- o Develop relationships with relevant Islanders in the communities where research is planned.
- o Provide an avenue to discuss issues of importance to Islanders.
- o Provide a method for dissemination of research information.
- o Allow Islanders to have some control over research process in their sea area.

Action:

- o Maintain regular contact with relevant people by visiting, phone calls, contact during field trips etc.
- o Develop a reference group to whom the researcher can refer during all stages of the research.
- o Develop research plan/proposal and research agreements in collaboration with relevant key people and/or organisations.



Step 4 & 5) Write and submit proposal

Timing: After sufficient cultural awareness and personal contact has been completed.

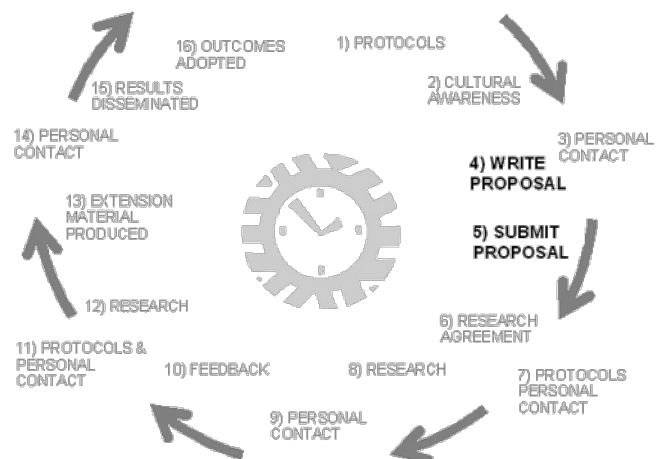
Relevant Section: Chapter 3 & Chapter 4.

Purpose:

- o Develop a research proposal that is suitable and agreeable with the relevant Torres Strait Island communities in a transparent manner.

Actions:

- o Consider what benefits will be gained by Islanders from the research proposed.
- o Consider which protocols the researcher should follow in conducting the research.
- o Consider which communication tools would be suitable for providing feedback and disseminating research information to Torres Strait Islanders.



Step 6) Research Agreement

Timing: Prior to conducting actual research.

Relevant Section: Chapter 6, Section 1.

Purpose:

- o Provide transparency to the research process.
- o Identify potentially contentious areas that may be encountered by the researcher such as culturally sensitive information that needs protection.
- o Provide Islanders with some control over the research process.

Action:

- o Identify appropriate Indigenous people or representative groups with whom to enter into a research agreement.
- o Negotiate a research agreement with relevant key Islanders and/or representative organisations.
- o Consider how this agreement will provide benefit to Islanders and the researcher.

Step 8 & 12) Conduct research

Timing: From signing of research agreement.

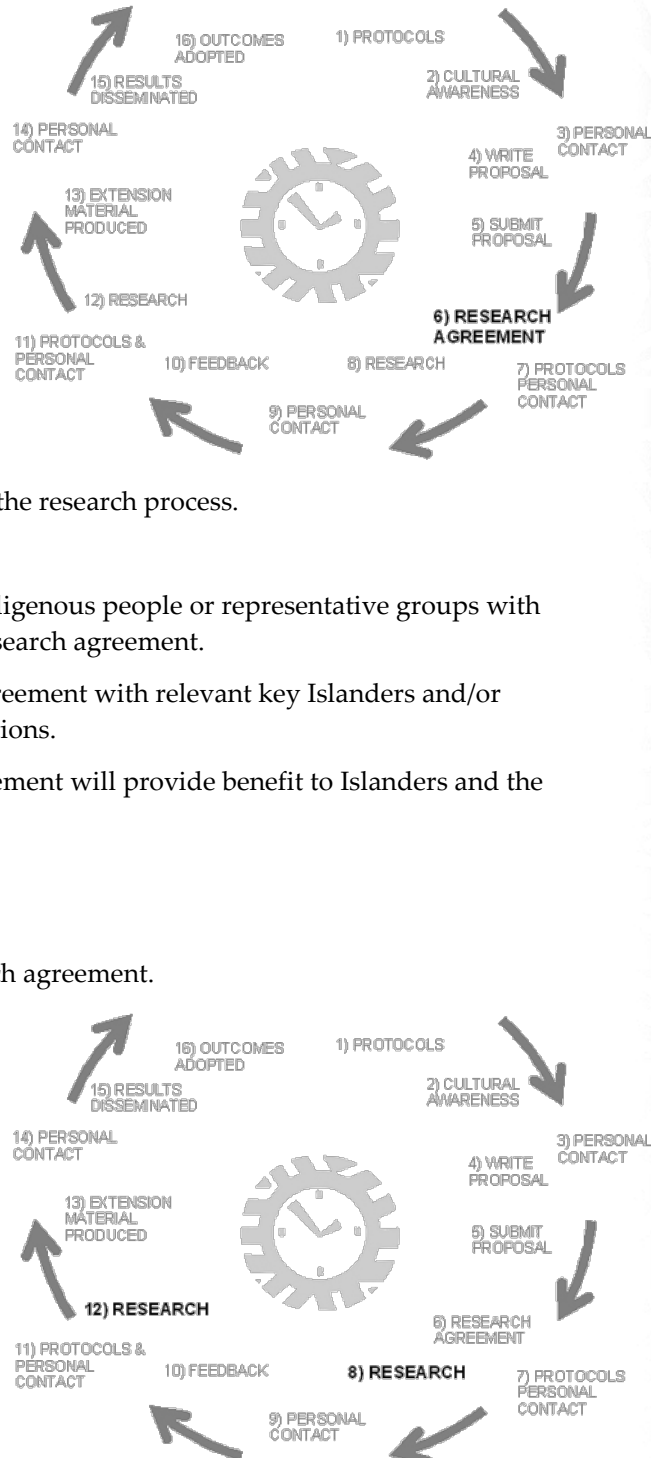
Relevant Section: Chapter 3 & Chapter 4, Section 2.

Purpose:

- o Conduct research in an ethical manner.

Actions:

- o Maintain regular contact.
- o Follow appropriate protocols.



Step 10) Feedback

Timing: Ongoing through research project.

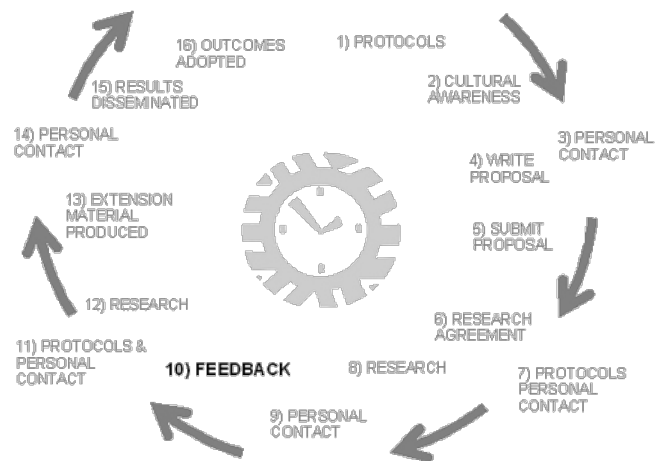
Relevant Section: Chapter 4.

Purpose:

- o Provide information to Torres Strait Islanders.
- o Maintain relationships with Islanders.
- o Give 'ownership' of research information through greater understanding.

Actions:

- o There are numerous tools in Chapter 4 that are suitable for providing feedback to Islanders including, personal contact, meetings and workshops, printed material, displays, capacity building, advisory committees etc.



Step 13) Extension material

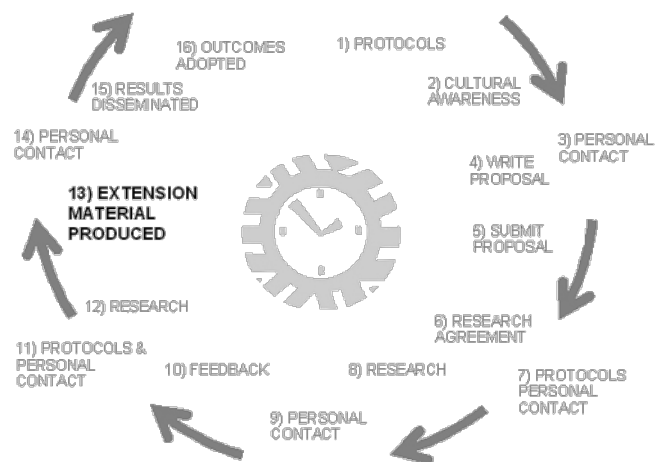
Timing: At anytime during progress of research.

Relevant Section: Chapter 4.

- o Provide information to Torres Strait Islanders in suitable formats.
- o Maintain relationships with Islanders.

Actions:

- o There are numerous tools in Chapter 4 that provide ideas to researchers of suitable extension material and activities including, presentations, brochures, posters, identification charts, calendars, displays, visual tools, etc.



Step 15) Disseminate research results

Timing: At anytime during progress of research.

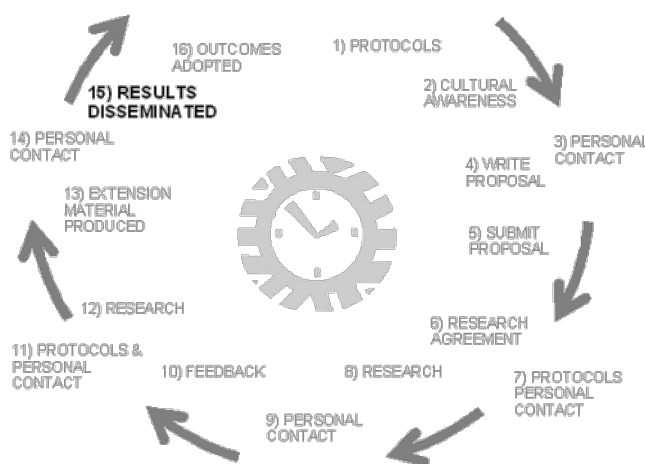
Relevant Section: Chapter 4.

Purpose:

- o Provide information to Torres Strait Islanders in suitable formats.
- o Maintain relationships with Islanders.

Actions:

- o There are numerous tools in Chapter 4 that provide ideas to researchers of suitable communication activities including, presentations, brochures, posters, identification charts, calendars, displays, visual tools, etc.



Step 16) Outcomes adopted

Timing: Following dissemination of research outcomes.

Relevant Section:

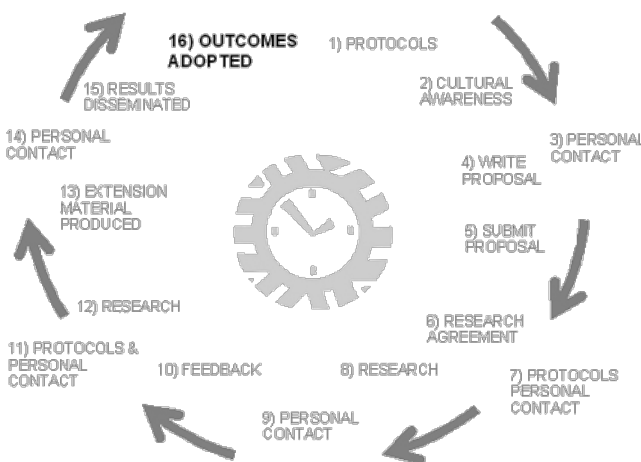
Chapter 4, Sections 2 & 14.

Purpose:

- o Provide advice to Islanders, advisory committees etc. as to how research outcomes can be used.
- o Maintain relationships with Islanders.
- o Build capacity of Torres Strait Islanders.

Actions:

- o There are numerous tools in Chapter 4 that may help researchers in providing advice to Islanders as to how research outcomes may be utilised. The tools used will need to be assessed on a case-by-case basis.



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9 APPENDICES

Appendix 1: Task list for CRC Torres Strait¹³.

PROJECT 1: Sustaining the Harvest of Marine Resources		
Project Leader: Dr Gavin Begg CRC Reef/JCU		
Project Associates: Jim Prescott AFMA, Peter Yorkston TSRA, Barry Ehrke QSLA		
TASK	TASK LEADER	TASK ASSOCIATES
T1.1: Evaluation of the eastern Torres Strait reef line fishery.	Dr Ashley Williams CRC Reef/JCU	John Marrington AFMA Peter Yorkston TSRA
T1.2: Status assessment of Eastern Torres Strait Spanish mackerel fishery.	Dr Gavin Begg CRC Reef/JCU	John Marrington AFMA
T1.3: Sustainability assessment of the Torres Strait rock lobster fishery.	Dr Yimin Yee CSIRO	Jim Prescott AFMA
T1.4: Sustainability assessment of the Torres Strait sea cucumber fishery.	Tim Skewes CSIRO	Sascha Taylor AFMA Dr John Kung QFS
T1.5: Towards ecologically sustainability management of the Torres Strait Prawn fishery.	Clive Turnbull QDPI&F	Jim Prescott AFMA Dr John Kung QFS Rosemary Millwood TSPEH
T1.6a: Exploring the potential of sponge aquaculture in Torres Strait.	Dr Alan Duckworth Libby Evans-Illidge AIMS	Robin Maxwell TSRA Donald Mosby (Chair, Masig Island Council) NQIAWG
T1.7: Indigenous aquaculture – extension and community development.	Chris Robertson QDPI&F	Don Mosby NQIAWG
T1.8: Modelling the impact of multiple harvest strategies in the Eastern Torres Strait (ETS) Reef Line fishery.	Sarah Busilacchi JCU	Peter Yorkston TSRA John Marrington AFMA
T1.11: Information to assist Torres Strait Islanders manage their traditional fisheries for green turtles and dugongs in a sustainable manner	Jillian Grayson JCU	
T1.13: Torres Strait prescriptives for the Torres Strait indigenous bêche-de-mer (sea cucumber sustainability workshop 2005 – a collaborative approach	Sascha Taylor AFMA	

¹³ Correct as of 30/06/05

PROJECT 2: UNDERSTANDING ECOSYSTEM PROCESSES		
Project Leader: Dr Alan Butler CSIRO Project Associates: Dr Vicki Nelson NOO, Peter Yorkston TSRA		
T2.1: Mapping and characterisation of key biotic and physical attributes of the Torres Strait ecosystem.	Dr Roland Pitcher CSIRO	Steve Jackson NOO
T2.2: Biophysical processes in the Torres Strait marine ecosystem.	Dr Peter Harris GA	Vicki Nelson NOO Peter Yorkston TSRA
T2.3: Distribution and abundance of seagrass in the Torres Strait.	Dr Rob Coles QDPI&F	

PROJECT 3: EVALUATING MANAGEMENT STRATEGIES & RISK		
Project Leader: Dr Rob Coles QDPI Project Associates: Steve Jackson NOO, Peter Yorkston TSRA, Jim Prescott AFMA		
T3.1: Torres Strait cultural values linked to the sea: development of indicators for managing traditional marine resources.	Dr Judith Fitzpatrick	Peter Yorkston TSRA Steve Jackson NOO
T3.2: Management of introduced marine species risks on the Torres Strait.	Dr Kerry Neil QDPI&F	Simona Trimarchi PCQ
T3.3: Integrated ecosystem modelling for evaluating multiple-use management strategies.	Dr Francis Pantus CSIRO	Jim Prescott AFMA Dr Vicki Nelson NOO
T3.4: Identification and mapping of critical habitats adjacent to shipping lanes and ports in the Torres Strait.	Dr Mike Rasheed QDPI	Bob Brunner PCQ
T3.5: Port of Thursday Island baseline surveys for introduced marine pests.	Dr Kerry Neil QDPI&F	
T3.6: Port of Thursday Island seagrass monitoring	Dr Mike Rasheed QDPI	

PROJECT 4: EDUCATION		
Project Leader: Helene Marsh JCU		
T4.1: Education opportunities for indigenous involvement in marine ecosystem monitoring.	Dr Jane Mellors QDPI	
T4.3: Raising Indigenous community awareness and promoting on-ground recovery activities for marine turtles and dugongs in the Torres Strait.	Prof Helene Marsh	3 rd party contract
T4.4: Torres Strait education programs: capacity building in marine science.	Dr G. Brodie JCU	Tony Considine (Thursday Island High School) Tony Ghee (Torres Strait Regional Education Council)

PROJECT 5: EXTENSION		
Project Leader: Annabel Jones		
Project Associate: Toshi Nakata TSRA/CRC Torres Strait		
T5.1: Guidelines for ethical and effective communication for researchers working in the Torres Strait	Dr Annabel Jones CRC Reef/JCU	Toshi Nakata TSRA

Appendix 2: CRC Torres Strait Indigenous participants release form



INDIGENOUS PARTICIPANT RELEASE¹⁴

Name of Person/Group: ("the Participant")

Address:

Telephone: (....)..... Fax (....).... Email:

Date of Interview/Photography/Filming:

BY THIS DEED I, the Participant, grant to **CRC Reef Research Centre/CRC Torres Strait** ('the Producer') the right to make an audio and/or visual recording of my participation ('the Recording') and the right to make a transcription of the Recording ('the Transcription'), together with personal information relating to my involvement in the project.

The Producer may use and authorise the use of the material, in whole or in part, in the following ways:

- Inclusion in research reporting to CRC Reef Research Centre
- Inclusion in organisational publications, productions, presentations and website
- Inclusion in non-commercial educational materials

Until such time as I withdraw my consent.

AUTHORISATION

I understand that it is the responsibility of the community or family members to inform the Producer (CRC Reef Research Centre, PO Box 772, Townsville, Queensland 4810), of the passing of any members who were recorded for the above program and, on such notification, that the Producer will endeavour to remove their image, voice or any reference to the person or their story.

I warrant that there are no restrictions that prevent me from granting these rights, that I am authorised to do so and I agree to hold the Producer harmless against any claims arising from a breach of this warranty.

SIGNED: by the Participant in the presence of

Participant's signature _____ Witness' Signature _____

Date: _____

¹⁴ This release form is based on that used by Imaginocean Productions, Townsville.