

‘Yakasisi’ in Planning for a More Sustainable Future of Coastal Communities Impacted by Climate Change, Milne Bay, Papua New Guinea

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“I want the same type of respect that was used in the past to be taught to our children today” Women’s Leader, Ware Island Women’s Leader (2016).

Abstract Subsistence agriculture/fisher reliant island communities of the Louisiades, Milne Bay Province, PNG are seeing changes in their environment and in their ability to support themselves from its natural resources and services. Change is seen as the cumulative impacts upon these resources rather than disaggregating the individual causes. The lack of productivity and depletion of resources is seen as resulting from a combination of over-utilisation/over-harvesting by a growing population for food or cash, from rising sea level, catastrophic cyclones and droughts. Another important factor however emerged, the loss of ‘Yakasisi’. In Bwanabwana language ‘Yakasisi’ is respect; respect for elders’ guidance and decisions based on their understanding of changes they have coped with over their lifetimes; respect for their customary ecological knowledge and its application in the changing present and future management of clan resources; respect for the environment. ‘Yakasisi’ therefore has social and environmental dimensions, of people and place. The realisation of the value of ‘Yakasisi’ became apparent, along with its current erosion and disrespect through communities watching self-made videos of their people story-telling about the state of their natural resources and the challenges they face in coping with this. This has led to discussion in recognising, reinforcing and supporting ‘Yakasisi’, combined with current knowledge, to plan for a more sustainable future as impacts such as from climate change increase.

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Background

Communities from four small islands of the Western Louisiade Archipelago of the Milne Bay Province; Kwaraiwa (10°37'22"S 151° 17'23"E), Tubetube (10°35'3"S 151° 11'15"E), the isolated island of Ware (10°57'46"S 151° 2'46"E) and later Koyagaugau (10°23'15"S 151° 24'50"E) took part in the *Spreading the Reach of Community-Based Marine Management in Milne Bay* project. This was an initiative by Conservation International (CI) in Papua New Guinea [which transitioned to the local NGO, Eco Custodian Advocates (ECA)] that was selected for implementation as part of the first cycle of USAID PACAM (Pacific-American Climate Fund) funded projects across the Pacific with the aim of reducing long term vulnerabilities associated with climate change (USAID PACAM 2015).

Within this project one of the primary activities was the creation of video products derived from traditional and contemporary community storytelling revolving around changes in the environment from the past to today. Through this activity, we expected that communities would become empowered through the understanding of their resource history and potential futures. CI PNG found that the process of people collecting their own stories and evaluating their own situation in terms of resource management had a more powerful impact on communities than general awareness messages generated by the NGO or government. The sharing of these community-derived stories on the changes in the environment, both within the community and with neighbouring communities, enhanced the adaptive capacity of the communities and influenced improved decision-making and ecosystem management processes to reduce the communities' vulnerability from resource declines and change climate impacts (USAID PACAM 2015).

Methodology

The initial concept in facilitating community-driven video stories as an approach to identifying climate change impacts in coastal Milne Bay, was to place the right accessible resources, including photographic and computer equipment in three communities. This was supported by the provision of a user-friendly manual on camera use and targeted skills development in picture and video taking.

A small waterproof/shockproof digital camera (Panasonic Lumix DMC-TS5) and a robust laptop (Apple MacBook Pro) with a flexible solar panel was given to community schools on Kwaraiwa, Tubetube and Ware. The project provided a small camera because it was seen as less intrusive than larger camera/video recorders, whilst still capable of high definition images, with reasonable sound recording capability up to 4 meters (Mitchell and Aigoma 2017). Also, a laptop that could withstand tropical temperatures and humidity was chosen to download video files onto and potentially to process into short video clips. As the islands do not have electricity, a foldable solar panel was also supplied to charge the laptop and

camera. The placement of these in the school was because it was viewed by many as a community institution with a secure office where these could be stored and borrowed from a central location. Many teachers in these schools have some computer skills with which to utilise and manage the equipment. Being educators, they also can offer guidance to others in the taking of pictures and video (Mitchell and Aigoma 2017).

Gender Evaluation

Prior to the distribution of audio-visual equipment, a survey was undertaken with women on two of the islands Kwaraiwa and Koyagaugau (Ketaloya 2015) to determine the potential effectiveness of the proposed project methodology. The survey assessed the women's acceptance of different extension techniques and ways to express their views. In the latter series of questions, women were asked if they felt comfortable to record their views by taking pictures or video. Across the different leadership structures of the society ('ordinary' or village women; public servants who were teachers or health workers; church leaders; and community leaders) there was acceptance of both pictures and video (Ketaloya 2015). In the resultant videos, women expressed their views both within their family and in other social groupings.

Activities

It was anticipated that after a basic hands-on training that there would be members or sectors of the community that would take the opportunity to take pictures and video. Although some pictures were taken to support reports to the government on the situation of the severe El Nino drought of 2015 at the time, little other audio-visual material of environmental relevance was taken. We attribute this reluctance to a general lack of confidence on the part of communities' members in the use of the technology, not a lack of desire to tell their stories. An alternative approach was needed.

Video Filming and Production

In response to a lack of spontaneous videos, ECA and CI staff, as well as a freelance journalist went into communities to take video footage of story-telling (Fig. 1). On Ware, the community was made aware that videos on story-telling about changes in their environment from the past and of current issues would be filmed. On one Sunday when the community was relaxing in natural groupings, story-telling videos



Fig. 1 Videographer Paul Maolai taking video on Kwaraiwa Island

were shot. Apart from initial introduction and request for prior consent, participants expressed their stories without prompting so that topics of conversation were driven by themselves without undue outside influence. This method was also used on Koyagaugau, whilst on Kwaraiwa and Tubetube a combination of this method and of leaders bringing people together was used.

Story-telling was spoken in the local Bwanabwana language as people felt more able to express themselves in their first language. To facilitate editing and the opportunity of these stories to be shared more widely, these video shorts were translated into English. Mathew Jaymes, a journalist from Kwaraiwa Island went through all the video footage, transcribing what was said. The main stories were then extracted, placed in a logical flow and subtitles added. By having Bwanabwana language remain, as spoken, is important not only within the four communities, but also for other nearby communities who trade with these islanders and understand much of what is said. Where appropriate some scenery shots (commonly known in video production as B-roll) were then added. This was then edited. At the end of 2016 after a years work, local video products from the islands of Ware; Tubetube and Kwaraiwa (Engineer Group) and Koyagaugau, were shown to these communities.

Videos were first shown to those who participated in them to gauge their response. Their comments were noted and their informed consent was given prior to the videos being shown to the wider community. Videos were projected onto a white sheet 'screen' with external speakers for sound. This was shown in an open

'village square' at Ware, in a church building at Koyagaugau, a primary school classroom at Kwaraiwa and an elementary school classroom at Tubetube.

On Ware, a community of 1200, they watched carefully as they saw their own people in the video, especially the elderly speaking about the best times of their lives growing up, their lifestyle, the abundance of natural resources, food security and respect to nature's beauty in the years gone by. Only to see all these rapidly disappear from population increase, unsustainable management of use of marine resources, disrespect to traditional rules and climate change impacts (Aigoma and Mitchell 2017).

Often highlighted by the Ware community was the impact and changes caused by tropical cyclone Justin in March 1997, that came with strong winds, rain and a sea surge that took away a lined grove of fruit and nut trees along the foreshore and rubbed the fringing reefs. This was seen as the beginning of ongoing hardship by the people of Ware. It was an event that left immediate visual impact and a loss of the coastal fringe of the village (Fig. 2).

Post cyclone Justin (there have been several cyclones since, the most recent being tropical cyclone Ita in 2014) the causes of the changes mentioned above however tend often to be bundled together in peoples' stories.

Ware Island in 1979 had a resident population of 510 (340 people/km² of arable land on Ware) with a further 25% living elsewhere. In 2017, the resident population had grown to near 1200 (Elima Peter pers. comm. 2017) (800 people/km² of arable land on Ware). Within this time, the fallow of the subsistence garden reduced from 5–15 years in 1994 (Hide et al. 1994) to 2–3 years in 2005 (Foale 2005). This decrease in fallow is exacerbated by resultant soil erosion and loss of soil organic matter from burning and exposure to high intensity rainfall events. This was further exacerbated by water stress from drought such as the El Nino of 2015, and insect infestation of already weakened crops. The capability of the land to support the local population under current subsistence practice has been surpassed in this period. The marine resources especially near-shore have also altered and been heavily over utilised. Based on surveys of these resources, reef fishes for subsistence appear to be declining in size and abundance and if this trend continues will



Fig. 2 Ware Island looking east along the ridge with the main village on the right of the picture

become depleted (Wangunu 2013). The purchasing power of people to buy food on Ware is low with an annual household income of PGK750 \pm 250 (Gwabu et al. 2013).

Video Response

During the community viewing of the videos, there was a bit of fun and laughter, but everyone became thoughtful in their realisation of what was expressed. There was a buzz of discussion around the entire island community the next day as it had raised so much to think about, based on what they themselves had said. The main point expressed within the video that people were drawn to on Ware was the erosion of and lack of ‘Yakasisi’, or respect in English (Aigoma 2017). The aspects of respect are further explored here.

Respect for Elders’ Guidance and Decisions Based on Their Understanding of Changes They Have Coped with Over Their Lifetimes

People had great respect in the past. What I see today is that the respect from the past is not here any more. Former Female Public Servant, Ware Island.¹

Such disrespect and reckless attitudes has played a negative impact on life on Ware Island.²

In the past, when our elders tambu the plants we saw good results. Village man, Ware Island.³

We taught our children to have respect. I believe if we follow those old time rules set by the old people we will make Ware Island a better place to live. Former Cooperative Trader, Ware Island.⁴

In the process of story-telling, especially by elders, the next generations were hearing and gaining an appreciation, first hand on how experiential learning led to customary management and the setting of rules. Elders, by having a span of memories over a relatively long time frame in the community and expressing changes they have seen and heard of, led others to reflect on their recent experiences and what the future may hold. The video has also become a valuable

¹Former Female Public Servant. (2016) Quotation taken from Community Video, Ware Island subtitles.

²Elder. (2016) Quotation taken from Community Video, Ware Island subtitles.

³Village Man. (2016) Quotation taken from Community Video, Ware Island subtitles.

⁴Former Cooperative Trader. (2016) Quotation taken from Community Video, Ware Island subtitles.

audio-visual record, a snapshot of this point in time before the elders pass away with what they expressed.

Respect for Their Customary Ecological Knowledge

A customary management practice within these communities, which is ecologically beneficial, is to close an area of reef to fishing, known as 'bwagai' (tambu). This 'bwagai' is represented by standing a stick on the reef, as sign which people respected in the past, however today this respect is eroding.

It is up to us to respect the rules we put so in return it will benefit us. Village man, Koyagaugau.⁵

The practice of 'bwagai' and the customary management of the community's reefs in the past, was described by elders of Ware, where rotational harvesting of marine resources was a formerly enforced in order to allow time for harvested areas to recover. Now all reefs are open to fishing with a resultant depletion of resources accentuated by the 'tragedy of the commons', the individual drive to collect before someone else does.

Respect for the Environment

I also see people don't have respect for the reefs, people are reckless using the reefs. Elder, Ware Island.⁶

Respect of the natural environment (Fig. 3), especially within the sea was found to be important to islanders. Also on the land it was expressed that people should not burn the grassland carelessly, killing local wildlife, vegetation and 'killing' soil nutrients (Aigoma 2017).

Respect is shown by how the coconut is consumed. A person can't just cut open the coconut and scatter the rubbish everywhere, we taught our children to have respect. Elder Kumpauli Clan, Ware Island.⁷

'Yakasisi', respect in its many forms was seen as a foundational attitude upon which to re-establish eroding customs, customary management and in the implementation of rules and actions in order to cope with change. Identifying and disaggregating the causes of change in the environment, including those due to

⁵Village Man. (2016) Quotation taken from Community Video, Koyagaugau Island subtitles.

⁶Elder. (2016) Quotation taken from Community Video, Ware Island subtitles.

⁷Elder Kumpauli Clan. (2016) Quotation taken from Community Video, Ware Island subtitles.



Fig. 3 Village woman, Koyagaugau Island expressing herself in story-telling video [Village Woman (2016) Quotation taken from community video, Koyagaugau Island subtitles]

changing climate, will assist in determining a series of actions to either mitigate these changes or improve the environment.

Next Steps

After the showing of videos to the community on Ware, many individuals downloaded these onto their smart phones opening up another option for disseminating the videos that needs due consideration.

All four island communities gave their support for their videos to be shown to other communities in Milne Bay Province and the rest of Papua New Guinea where communities are facing similar problems along with other Pacific Island countries as well. Many of the communities in Milne Bay are remote and logistically difficult to reach with regular extension support, therefore materials such as these that are intuitive and easy to understand are an important alternative.

It is anticipated that a management guidance package, Spreading-the-Reach of *Community-based Marine Management Toolkit* that includes the videos, exercises based on the video, a step-by-step cartoon guided interactive workbook on marine resource management and factsheets that support this, could serve this purpose. Eco Custodian Advocates has developed such a toolkit in the Milne Bay Province of PNG, based on its work with these island communities. The dispersal of the toolkit as a combination of electronic and hard copy resource materials, could be through schools where there is existing education and extension capacity.

Conclusion

In conclusion, community-driven participatory videos have been an important tool to raise awareness, stimulate discussion and action for resource management and as a way for local villagers' to express their perceptions of climate change and other impacts upon their environment. The videos have highlighted ways in which communiites can take steps to sustainably manage their resources especially by revitalizing respect for elders, customary ecological knowledge and the environment. We believe the tool of participatory videos can continue to be an imporant approach in facilitating sound resource management and its application can and should be expanded in PNG and beyond.

If through 'Yakasisi' natural resources are in a healthier state as a result of respecting the environment and restored management, it is anticipated that these subsistence altered ecosystems, upon which the communities depend, will be more resilient to the shocks of climate change.

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