

Gwala, a form of marine customary closure in the Bwanabwana area of Milne Bay Province, Papua New Guinea

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Abstract

The highly biodiverse marine environment of Milne Bay Province in Papua New Guinea supports approximately 280,000 people and their livelihoods. Beginning in 2000, efforts have been made to establish Local Marine Management Areas across Milne Bay Province. It was not until 2017 however, when a local *tambu* system of customary marine management called *gwala* (in the Bwanabwana language) was acknowledged for the value and opportunity that this experiential community-driven approach offered. Several coastal and island communities across the Bwanabwana area have promoted *gwala* for food and livelihood security, and localised recovery of declining marine resources. With the continued promotion of *gwala*, management decisions about the placement of *gwala* and associated rules were recorded on smartphones. This was done to document *gwala* within and by the community so as to be utilised as needed in its oversight and compliance.

Background

Milne Bay Province (MBP) in Papua New Guinea (PNG) consists of the easternmost tip of the island of New Guinea and associated islands in the Coral and Solomon Seas. The mountainous mainland and nearby islands exhibit high levels of species endemism over a relatively small land area of 15,000 km² (Kraus 2021). The marine environment contains 30% of PNG's reef systems with an estimated 5355 km² of reefs and shoals that are less than 20 metres deep (Skewes et al. 2002, 2011). These reef associations are species rich, with 430 reef species (Fenner 2003) and more than 1300 reef fishes (Gerry Allen, pers. comm., 2019) and 643 molluscs (Wells and Kinch 2003). These coastal areas and islands were settled mainly by Austronesian peoples (with the exception of Rossel Island) (Shaw 2019; Chynoweth et al. 2020). These mostly rural and remote coastal and island communities predominantly rely on subsistence agriculture and artisanal fisheries for their livelihoods. The main source of cash income for these communities is the exploitation of commercially valuable marine resources, most notably, sea cucumbers for the production of beche-de-mer (Barclay et al. 2019; Kinch 2020) and shark fins (Vieira et al. 2017) and shells such as trochus and black-lip pearl shell.

Customary marine management

Customary marine management practices of closure over natural resources are found across many communities of the Indo-Pacific region (Vierros et al. 2010). Referred to as a *tambu* in PNG, it is known across some of the main language groupings of MBP as *gwala*, *tawakaus*, *hivi* and *doi*.

The early practice of customary marine management and associated closures by coastal and island communities along the southern New Guinea coast from Mailu (in the now Central Province) to Suau was known as *gora* (Abel 1902), and from Logea Island along the north coast to Cape Vogel and Dobu Islands (Malinowski 2022), as well as the Engineer Group of Islands (Seligman 1910) extending to the Trobriand Group of Islands (Malinowski 1922).

Traditionally, on Dobu Island in the D'Entrecasteaux Group of Islands, upon the death of a man of importance in any of the hamlets, the whole community underwent a *gwala*, a *tambu* on harvesting betelnut and coconuts in preparation of the required mortuary rites (Malinowski 1922). Kinch (2020) records that across island communities of the Louisiade Archipelago, it was common practice to declare a portion of reef closed when someone of importance dies. The sign of this closure was to tie coconut leaves across the limbs of a Y-shaped branch or young tree and then placed on a section of reef, signalling to the community that this area was now closed (Seligman 1910). The length of such a closure varied, according to the importance of the man who had died, as well as other logistical circumstances (Malinowski 1922).

With the advent of both Christianity and greater dependence on the cash economy, the practice of *gwala* has declined.

The re-emergence of *gwala*

In 1997, Marida Ganisi placed a *gwala* on Wialoki Island after the death of her uncle. Marine resource abundance around Wialoki Island was poor due to previous over-

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exploitation of commercially valuable marine resources. Marida had seen her forefathers practice *gwala* and now as the head of a matrilineal family she reintroduced *gwala*. The original *gwala* involved a ban on trochus harvesting for six months. When the *gwala* was lifted, fishers from the nearby Kwaraiawa Island community came and collected all the marine resources they could find. This led Marida to reintroduce another *gwala* in 1999, this time banning the harvest of all commercially valuable marine resources across an area of over 53% of the total reef–lagoon system of Wialoki and adjoining islet. This *gwala* remains in place and has become a refugia and giant clam gardens have been established (see Kinch 2002, 2008 for other parts of MBP). The resultant spill-over from this *gwala* into adjacent areas that are open for fishing and gleaning has been sufficient to sustain the harvesting of marine resources for Wialoki Islanders for both food and trade.

During the Global Environment Facility’s Milne Bay Community-based Coastal and Marine Conservation Project (CBC&MCP) that ran from 2002 to 2006, community development workers employed by Conservation International (CI) visited Wialoki Island. Working closely with Marida and the community, CI staff supported *gwala* as part of their requirements to establish Locally Managed Marine Areas (LMMAs). Due to a range of issues with management, the CBC&MCP was closed (Baines et al. 2006; Dowie 2008; Balboa 2013). In the lead up to the closing of the CBC&MCP, CI tried to develop a Conservation Incentive Agreement, essen-

tially “cargo for conservation” process in an attempt to entice the Wialoki Island community to establish a LMMA (Conservation International 2006; Kinch 2020). Reflecting on the closure of the CBC&MCP, the then CI Country Director claimed that “money had killed conservation”. As a result of the CBC&MCP termination, Marida decided that it was her responsibility to ensure the continued custodianship of the *gwala* customary closure that she had initiated.

In the case of Wialoki Island and later Anagusa Island, the purpose of the *gwala* was primarily for food security and rehabilitating stocks of commercially valuable marine resources.

Having seen the loss of reef health as well as the depletion of commercially valuable marine resources, a ward member on Anagusa Island asked community elders about reintroducing *gwala*. Community discussions ensued and community members provided their support following a vote, with everyone shouting: “we go for *gwala*” (Elama Peter in the video *Gwala Rising*, 2018). The area to be closed was then discussed by the community and agreed upon. One factor that was considered in the area selected was that it had previously had large shoals of scads (*katukatule*, *Selar* spp.) and they wanted to provide an area for their recovery. The boundary of the *gwala* closed area was clearly defined with visible natural features that served as markers, and rules were agreed upon by community consensus along with the length of time of the closure. The ward member, a formally elected representative within the local level government recognised



Figure 1. Placing a marker for the *gwala* in the lagoon on Anagusa Island, closing this and the fringing reef from fishing, 2017. Still image taken from video ‘Gwala Rising’ 2018, by Stephani Gordon, © Conservation International,



Figure 2. Placement of *gwala* at Ole Island 2018. The mark was dressed with *bagi* and *mwali* shells, conch shells, and betelnut. Still image taken from smartphone video record of *gwala* closure by Noel Wangunu, ©ECA.

these decisions and rules in the local language as “customary law”. The customary mark of *gwala*, a forked branch with coconut and coconuts leaves was then placed on the reef, and to provide another level of authority, the church pastor also blessed the *gwala*.

Where there is community participation, a common understanding and commitment towards a common action, the implementation and potential of shared benefits from a *gwala* is more likely to succeed. Local infringements can be heard by the local village court, which under the Village Courts Act 1989 can hear matters in relation to land (reef is also defined as reef in this Act), on the right by custom of its use, or prohibition of use. In incidences of poaching commercially valuable marine resources, village court decisions in relation to customary practices such a *gwala* can be presented to a higher court; customary law being recognised as a source of underlying law in PNG within the Underlying Law Act 2000.

With a need for cash, a secondary value of the *gwala* has been achieved at Anagusa Island by opening the *gwala* closure in which fishers can dive for trochus. This is permitted, following community agreement that allows collection for a few hours, within which around 1000 shells are collected. Trochus is ideal for a well-managed sustainable take, with the saleable pieces coming from a base diameter of 8–12 cm. The lower limit allows spawning and recruitment of stock and the upper limit is set due to these shells being of no commercial value due to the shell being attacked by borer worms (Nash 1993). In this way new cohorts and reproductive shells remain in the *gwala*. In Vanuatu, for

example, the primary reason for establishing some customary marine areas was as a management approach for trochus as a cash income. Through the 1990s the Fisheries Department, Environment Unit, and Vanuatu Cultural Centre supported these traditionally derived contemporary *tambus* through a programme of cooperative management (Hickey 2006). Within the sheltered lagoon of the Anagusa Island, seaweed farms were established and harvested, however with loss of market these were disbanded.

Other communities in MBP are now also placing *gwala* over areas of their marine tenure. These have been supported by varying levels of influence, either initiated internally, through the church or government, or with support from non-governmental organisations.

For example, Ole Island is a small island within the Kula Ring of MBP, a network of customary traders on islands who exchange valuable *bagi* shell necklaces for *mwali* armband along with other items (Irwin et al. 2019). At Ole Island, 78% of the reef area is now under a *gwala*, with an emphasis of protecting high-value *kula* exchange items. Again, the church pastor has given his blessing while, the ward member has recognised this act, and the Milne Bay Provincial Environment Officer was invited to witness the placement of the *gwala*.

In the Brumer Islands, 37% of the reef area is now under a *gwala*. At the dedication for this *gwala*, a church minister linked the custom of *gwala* to the scriptures of Ecclesiastes 3:1 and 2a² and Genesis 2:15,³ and sprinkled “holy” sea water into the sea when declaring the *gwala* closure. Another

² There is a time for everything, and a season for every activity under the heavens: a time to be born and a time to die, a time to plant and a time to uproot.

³ The Lord God took the man and put him in the Garden of Eden to work it and take care of it.



Figure 3. United Church minister and community at the blessing of the gwala on Bonarua Island in the Brumer Group, 2021. Still image taken from smartphone video record of gwala closure by David Mitchell, ©ECA.

church pastor prayed over the *gwala*. In this instance, the branch that identified the *gwala* was decorated with giant clam shells to signify the marine nature of the closure.

In mid-2016, before CI finally exited PNG, a local NGO, Eco Custodian Advocates, was formed and a short film on the *gwala* system of marine closures, called *Gwala Rising* (2018), was produced, which included part of Marida's story. This film combined personal stories from different perspectives within the communities in their application of a *gwala*. More importantly, the film documented the process of establishing a *gwala* by the community at Anagusa Island. This *gwala* has been maintained to the present. The message within *Gwala Rising* is also a call-to-action, making it an ideal introduction for other communities to consider reintroducing *gwala* in their own marine territories. When projected onto a white sheet in villages or watched on smartphones, community members are able to relate to these stories, and discussions can be generated about taking action to implement a *gwala*.

In one instance, this led in 2020 to a ward member from Simbumbum Islet using a smartphone to record a video of his community's declared rules, and the placement of a *doi* (their name for *gwala*).

The use of smartphones allows the dynamics of customary, written law and religious beliefs to be recorded, and provides a storable medium apart from human memory. Apart from being a record of *gwala* for communities, it can also be used within village courts, as well as being presented to government agencies and higher courts. More importantly, when the implementation of a *gwala* is recorded within the community, in the language and context of where it is implemented, the rights over this intellectual property remains within the community.

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References

- Abel C. 1902. *Savage life in New Guinea: The Papuan in many moods*. London England: London Missionary Society.
- Baines G., Duguman J. and Johnston P. 2006. *Milne Bay Community-based Marine and Coastal and Marine Conservation Project, Project Number PNG/01/G31 Terminal Evaluation of Phase 1, July 2006*
- Balboa C. 2013. How successful transnational non-governmental organizations set themselves up for failure on the ground. *World Development* 54:273–287.
- Barclay K., Fabinyi M., Kinch J. and Foale S. 2019. Governability of high-value fisheries in low-income contexts: A case study of the sea cucumber fishery in Papua New Guinea. *Human Ecology* 47:381–396. <https://doi.org/10.1007/s10745-019-00078-8>

- Chynoweth M., Summerhayes G.R., Ford A. and Negishi Y. 2020. Lapita on Wari Island: What's the problem. *Asian Perspectives* 59(1):100–116.
- Conservation International. 2006. Community Conservation Incentive Agreement, Between: Conservation International and The Kisakisa Wialoki sub clan and the Magisubu Nataule sub-clan, Skelton Island branch. Conservation International, Papua New Guinea Country Program, Alotau.
- Dowie M. 2008. Wrong path to conservation in Papua New Guinea: Dangling cargo to win local support, Western enviros have instead aroused ire in Papua New Guinea. *The Nation*. September 29, 2008 issue.
- Fenner D. 2003. Corals of Milne Bay Province Papua New Guinea, Chapter 1:20–26 in Allen G., Kinch J.P., McKenna S. and Seeto P. (eds). 2003. A rapid marine biodiversity assessment of Milne Bay Province, Papua New Guinea Survey 2 (2000), RAP Bulletin of Biological Assessment 29, Conservation International.
- Gwala Rising. 2018. Vimeo <https://vimeo.com/251872301>; You Tube <https://www.youtube.com/watch?v=AfANgYbcGP4>
- Hickey F.R. 2006. Traditional marine resource management in Vanuatu: Acknowledging, supporting and strengthening indigenous management systems. *SPC Traditional Marine Resource Management and Knowledge Information Bulletin* 20:11–23. <https://purl.org/spc/digilib/doc/h7iso>
- Irwin G., Shaw B. and McAlister A. 2019. The origins of the Kula Ring: Archaeological and maritime perspectives from the southern Massim and Mailu areas of Papua New Guinea. *Archaeology in Oceania* 54:1–16.
- Kinch, J. 2002. Giant clams: Their status and trade in the Milne Bay Province, Papua New Guinea. *Traffic Bulletin* 19(2):67–75.
- Kinch J. 2008. From prehistoric to present: Giant clam (*Tridacnidae*) use in Papua New Guinea. In: Antczak A. and Caprini R. (eds). *Early Human Impact on Megamolluscs*. British Archaeological Reports International Series 1865:179–188.
- Kinch J. 2020. Changing lives and livelihoods: Culture, capitalism and contestation over marine resources in island Melanesia, A thesis submitted for the Degree of Doctor of Philosophy, School of Archaeology and Anthropology Research School of Humanities and the Arts. Australian National University, Canberra.
- Kraus F. 2021. A herpetofauna with dramatic endemism signals an overlooked biodiversity hotspot. *Biodiversity and Conservation*. <https://doi.org/10.1007/s10531-021-02242-3>
- Malinowski B. 1922. *Argonauts of the Western Pacific: An account of native enterprise and adventure in the Archipelago of Melanesian New Guinea*. New York, New York: George Routledge and Sons, Ltd.
- Nash W.J. 1993. Trochus. Chapter 14. In: Wright A. and Hill L. (eds). *Nearshore marine resources of the South Pacific*. p. 451–495. Institute of Pacific Studies, Suva; Forum Fisheries Agency, Honiara; International Centre for Ocean Development, Canada.
- Seligman C.G. 1910. *The Melanesians of British New Guinea*. Cambridge, United Kingdom: Cambridge University Press.
- Shaw B. 2019. Archaeology of the Massim Islands Region, Papua New Guinea in C. Smith (ed). *Encyclopedia of Global Archaeology*. https://doi.org/10.1007/978-3-319-51726-1_3444-1
- Skewes T., Kinch J., Polon P., Dennis D., Seeto P., Taranto T., Lokani P., Wassenberg T., Koutsoukos A. and Sarke J. 2002. Research for sustainable use of beche-de-mer resources in Milne Bay Province, Papua New Guinea. Cleveland Australia: CSIRO Division of Marine Research Final Report.
- Skewes T., Lyne V., Butler J., Mitchell D., Poloczanska E., Williams K., Brewer D., McLeod I., Rochester W., Sun C. and Long B. 2011. Melanesian coastal and marine ecosystem assets: Assessment framework and Milne Bay case study. CSIRO Final Report to the CSIRO AusAID Alliance.
- Vieira S.; Kinch J.; Yaman L. and White W. 2017. Shark fishing in the Louisiade Archipelago, Papua New Guinea: Socio-economic characteristics and government policy options. *Ocean and Coastal Management* 137:43–56.
- Vierros M., Tawake A., Hickey F., Tiraa A. and Noa R. 2010. Traditional marine management areas of the Pacific in the context of national and international law and policy. Darwin, Australia: United Nations University Traditional Knowledge Initiative.
- Wells F.E. and Kinch J.P. 2003. Molluscs of Milne Bay Province Papua New Guinea, –Chapter 3:39–45. In Allen G., Kinch J.P., McKenna S. and Seeto P. (eds). A rapid marine biodiversity assessment of Milne Bay Province, Papua New Guinea Survey 2 (2000), RAP Bulletin of Biological Assessment 29, Conservation International.

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