

The use of village by-laws in marine conservation and fisheries management

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Background

Thirty years ago, most of the waters surrounding the islands of Samoa were untouched, and the beauty of the underwater world was seen as a major attraction. Corals of different forms provided a naturally arranged beauty of different structures. Reef fish of many types added colour to this beauty. Reefs and lagoons were rich in food resources and able to sustain the demand of coastal dwellers.

As years passed, and as the population expanded, the demand for fishery resources similarly increased. People were attracted to use the most effective but often destructive ways of catching fish. These include breaking corals, poisoning fish, using explosives and many others. It is now realised that many of these methods are very destructive to the marine environment. The Division of Fisheries through its extension programme has introduced a community-based approach in order to assist village communities to manage and conserve their inshore fishery resources. Through this approach, by-laws become an important tool for the management of subsistence fisheries.

Inception of village fisheries by-laws

In the mid-1980s, it was realised that the inshore fisheries of almost all villages along the coast of Samoa were experiencing serious declines in catches. The identified causes include over-exploitation, the use of destructive fishing methods, and environmental disturbance. The situation has caused concern not only to the Government, but also to a large number of the village communities. As a result, village communities through their village *fono* (council) began to use local media to advertise village rules to prevent further decline of their inshore fishery resources. Advertisements reiterated the ban on the use of explosives, chemicals and other destructive fishing techniques and expressly prohibited nearby villages fishing in their respective lagoon areas. They also indicated penalties to be paid to the *fono* for any breach of their village rules by their own residents. For breach by outside villages, advertisements included threats of

legal action. While the enforcement of village rules within individual communities was relatively easy, problems were experienced with enforcement on outside communities.

The Fisheries Division recognised that such actions by the *fono* provided an excellent avenue to introduce effective management regimes for the inshore fisheries. However, some village rules to manage and conserve fishery resources contradicted existing Government laws. This has resulted in several *fono* not being able to pursue court action against breaches by neighboring villages. For this reason, the Fisheries Division felt that the village *fono* should be given assistance; village rules that facilitated the conservation and management of their subsistence fisheries should be legalised. Therefore, when the Fisheries Act was formulated in 1988, the Fisheries Division made sure that the rules set by the village *fono* were given legal recognition. To this end, the Fisheries Act was specifically designed to include provisions dealing with procedures whereby a village *fono* could declare its own rules as by-laws. These in essence are village rules that have legal recognition; hence the inception of village fisheries by-laws.

What are village by-laws?

Village Fisheries By-laws are village rules that have been prepared in accordance with relevant provisions of national Fisheries Legislation and are accorded legal recognition in the courts of law.

By-laws can cover any measure that assists the management and conservation of the fishery resources. These may include the restriction of the sizes of fish and shellfish (providing they are not smaller than those set out in the Fisheries Regulations 1996), bans on certain types of fishing gear and methods, allocation of fish quotas, restriction of mesh sizes for nets and fish traps (again providing they are not smaller than those set out in the Regulations) and closure of fishing seasons or areas to allow fish to reproduce. Importantly, they must apply to all citizens equally (not just people from outside the sponsoring village). Table 1 lists some of the common fisheries regulations now being taken over by communities as their own by-laws.

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The by-law process

Step 1: By-law formulation

In all Samoan village communities, the highest village authority is referred to as a *fono* (council of chiefs). It is the authority that determines village rules, sets village policies and imposes traditional punishments on village residents when they do not abide with village rules and policies. So if a village *fono* decides to promulgate village by-laws, the chiefs will consult among themselves first on the rules they would like to introduce, bearing in mind that the rules must be related to the conservation and management of the fishery resources.

Step 2: Consultation process

Once the chiefs have agreed upon the rules, they then send their representatives to the Fisheries Division and consult as to the appropriateness of their proposed rules. This process is essential because the village *fono* may decide on rules that contradict some existing Government legislation. Sometimes the *fono* may wish to introduce rules that apply to outside villages but exempt their own residents. So this process allows the *fono* to have a better understanding of the limitations of by-laws and why they should be applied equally to all Samoan citizens. Through this process, the Fisheries Division may suggest improvements, alterations, and in extreme cases, recommend complete deletion of the proposed by-law. Also through this process, the Fisheries Division undertakes redrafting of the by-laws to reflect the wish of the *fono*.

Step 3: Final checking and clearance by the Office of the Attorney General

When the changes made in the consultation process have been agreed upon, they are then submitted to the Office of the Attorney General for final checking and clearance. In this step, the by-laws are also written into their legal and proper forms.

Step 4: Signing

When all by-laws have been checked and finalised, they are returned to the Fisheries Division for the signature of the Director of the Ministry of Agriculture, Forests, Fisheries and Meteorology.

Step 5: Gazetting, publishing and distribution process

After the by-laws are signed, they are then passed to the Legislative Assembly to be gazetted. At the same time they are published by the Fisheries Division in the local newspaper and copies are distributed to *pulenu* (nominated Government representatives) of neighbouring villages. The distribution of the by-laws to neighbouring villages is necessary because they are the people most likely to breach the by-laws if they are not duly informed. The by-laws will then come into force on a fixed date stipulated in the by-laws. The by-laws do not come into effect until 14 clear days after the date of publication in the Government Gazette. Until this time the village communities are not able to enforce them. The by-laws may be altered or revoked as required from time to time by the village *fono*.

Table 1: Community Actions and Regulations in villages in Samoa (Figures in the right-hand column indicate the percentage of all villages using the particular action or Fisheries regulation as their own by-laws).

Action/Regulation	Percentage
Banning the use of chemicals and dynamite to kill fish.	100%
Banning the use of traditional plant-derived fish poisons.	100%
Establishing small protected areas in which fishing is banned.	86%
Banning other traditional destructive fishing methods (e.g. smashing coral).	80%
Organising collections of crown-of-thorns starfish.	80%
Enforcing (national) mesh size limits on nets.	75%
Banning the dumping of rubbish in lagoon waters.	71%
Banning the commercial collection of sea cucumbers (Holothuroidea).	41%
Banning the capture of fish less than a minimum size.	41%
Banning removal of mangroves (in villages with mangroves).	27%
Restricting the use of underwater torches for spear fishing at night.	21%
Banning the removal of beach sand.	14%
Placing controls or limits on the number of fish fences or traps.	<10%
Prohibiting the collection of live corals for the overseas aquarium trade.	<10%
Banning the coral-damaging collection of edible anemones (Actinaria).	<10%

Step 6: Monitoring and enforcement

The last and most important process is the monitoring and enforcement of the by-laws by village communities. The communities normally put signboards along roadsides and beaches to inform the public of the areas to which their respective by-laws apply. Communities variously build watch houses; and use patrol canoes and regular watchmen to monitor illegal activities in their coastal zones and marine protected areas.

Once the by-laws come into effect, breaches by individuals from the village sponsoring the by-laws can be dealt with by the village *fono* using traditional fines such as provision of pigs, taro and others. Breaches by outside village communities are handled through the court of law. Anyone found breaching a by-law is liable to a fine not exceeding \$ 100 (Samoa Tala) and not more than \$ 20 for each day if the breach continues. The village *fono* is the enforcement body and any breach of the by-laws should be reported to the police. If the offence involves an existing Government law or Fisheries legislation, applicable fines under those laws will apply.

Advantages of village by-laws over village rules and government laws

While most of the rules set by the *fono* to govern the management and conservation of their fishery resources receive full support from Fisheries, these rules are only applicable to members of that community. In cases where people from outside a village come into local waters, the community may be powerless to insist that visitors obey local rules. Village rules are not legally recognised and therefore cannot be used to take court action. An example of this would be the banning of outside villagers from fishing another village's Marine Protected Area. Under the Lands, Survey and Environment Act 1989, all land lying below the line of high water mark shall be public land. This gives the authority to any person outside the village that owns the rules to fish in the area designated as Marine Protected Area. As for Government, much legislation has been passed to prohibit harmful fishing practices, and Fisheries Regulations have been put in place to restrict the harvest of small fish. Such Government legislation has not proven effective in ensuring the proper management and conservation of Samoa's fishery resources. The basic reason is that Samoa, in common with many other island countries, does not have adequate resources (either funds or manpower) to monitor and enforce legislation.

On the other hand, village Fisheries by-laws are village rules that can be monitored and enforced

by the village *fono*. Quite often village *fonos* take existing Fisheries regulations to form major parts of their by-laws. Customary fines are imposed on residents of villages that own the by-laws. For outsiders, the village *fono* can take legal action against any breach through the court of law. One very important aspect that has been noticed is, that the communities, guided by the village *fono*, are more active and committed when the rules belong to them. By-laws form an important part of the village community management plan. **The main advantage of the by-laws over the regular laws concerning fisheries is that by-laws are monitored more effectively than those of regular fisheries laws.** Given the limitation of resources and personnel, many laws set by Government are hard to police and so can not be effectively monitored. By-laws on the other hand are created by people with real interest in the management and conservation of fishery resources in question. In cases of by-laws set by the *fono*, the *fono* itself is inclined to ensure that the by-laws are properly monitored. Within the three-and-a-half-year period since Fisheries first introduced the community-based programme to manage the inshore fishery resources of Samoa, 52 villages have established their own by-laws.

Problems

While the by-laws are seen to work very effectively, there have been problems identified within both the village communities and Government agencies themselves.

In some village communities, village *fonos* are subject to disruption due to internal differences amongst the chiefs themselves. When this happens, the *fono* can no longer function properly and enforcement is not effective. Two such cases have been reported to the Fisheries Division since the inception of the village by-laws.

From the Government side, the process involving other Government agencies is not prompt enough to meet the expectation of village communities. When there is a delay in the process, the village *fono* will often go ahead and enforce its by-laws before the legal procedure is completed. While the by-laws can be enforced amongst the residents of the village that owns them, enforcement against the nearby villages is difficult and quite often involves the use of physical force. So there is a potential for inter-village battles as a result of delays in the process.

One problem Fisheries Division has realised is the cost involved in advertisement of the by-laws. If Fisheries is targeting 17 village communities for its annual work program, costs exceed \$ 5,100

(Samoan Tala). This is quite a large amount for one-line item in a Divisional budget. However, it is not expensive relative to the expected long-term beneficial impact on the marine environment.

Conclusion

The success of village by-laws is related to community ownership. Regardless of legislation or enforcement, the responsible management of marine resources will only be achieved when fishing communities themselves see it as their responsibility. Communities of villages which set their own by-laws are more likely to respect and abide by these rules than those set by a government authority. Village by-laws, therefore, represent a fisheries management tool, which has great potential for solving many problems involving the conservation of the inshore marine environment. This tool has not been taken advantage of by authorities in most Pacific Islands. Village by-laws have become a key part of village Fisheries Manage-

ment Plans created under the community based Fisheries Extension program operated in Samoa (King & Fa'asili, 1997).

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Annex 1: By-law formulation process

