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Proposed Model for

Samoa's Community-based Ecosystem Approach to Fisheries Management (CEAFM)

Samoa Fisheries Division, Ministry of Agriculture and Fisheries (MAF)
and Secretariat of the Pacific Community
Samoa, 2012

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Samoa's Community-based Ecosystem Approach to Fisheries Management (CEAFM)

by Olofa Tuaopepe (Principal Fisheries Officer) and Joyce Samuelu-Ah Leong (Principal Fisheries Officer)
with technical assistance from Magele Etuati Ropeti (SPC's Coastal Fisheries Programme)

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In memory of

Ms Olofa Tuaopepe

who passed away before the final version
of this model was produced.

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Olofa Tuaopepe and Joyce Samuelu-Ah Leong


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1 Introduction

The coastal and near shore ecosystems of Samoa are among the most fundamental and significant resources that Samoa, like many other Pacific Island countries and territories, depend on for their livelihood. These ecosystems have the most useful terrestrial and marine resources, but are the most heavily populated and so are also the most susceptible to change by natural events and human activities

Samoan people traditionally rely on fish and shellfish for most of their daily protein. Their coastal resources, including plants and marine species, are also used for other purposes, such as traditional medicine, construction and coastal seawalls. Over the years, the increase in Samoa's population has put pressure on their marine resources. Over 70% of villages are located on the coastal fringes of the islands, and subsistence fishing is a major activity of the inhabitants (Passfield et al. 2000).

Natural disasters, satisfying the needs of growing communities, and economic developments directly and indirectly damage coasts and marine biodiversity and lead to a range of coastal problems. These include mangrove degradation, coastal de-vegetation, coastal reclamation, waste disposal and pollution, urban and infra-structural developments, sedimentation and run-off, high population density and urbanisation. People's demands lead to over-exploitation of marine resources and the use of destructive fishing methods, resulting in the destruction of coral, as well as a decline in the number of marine species.

The existing fisheries management strategies include regulations and policies that minimise over-fishing and destructive fishing activities. Fisheries management measures are mainly focused on regulating fishing activities in order to achieve sustainable use of targeted species, while less consideration or none at all is given to non-targeted species, food chains and the natural habitats of fishery resources.

Coastal fisheries management within Samoa has adopted a successful partnership with communities to co-manage coastal resources. The Community-based Fisheries Management Programme is an approach that places the responsibility on the communities who are the resource users to manage their marine environment and resources. The involvement of communities in the management of their fishery resources is considered the most effective way yet to resolve most of the problems threatening the sustainability of coastal resources.

The ecosystem approach to fisheries (EAF) management is a way to implement sustainable development, in this case for coastal fisheries. The Food and Agriculture Organization (FAO) states that:

> .... fisheries management under EAF should respect the following principles:
>
> - Fisheries should be managed to limit their impact on the ecosystem to the extent possible;
> - Ecological relationships between harvested, dependent and associated species should be maintained;
> - Management measures should be compatible across the entire distribution of the resource (across jurisdictions and management plans);
> - The precautionary approach should be applied because the knowledge on ecosystems is incomplete; and
> - Governance should ensure both human and ecosystem well-being and equity (FAO 2003).

The ecosystem approach to fisheries merges ecosystem management and fisheries management, and this aims to meet the goals of satisfying the societal and human need for food and economical benefits through management actions that focus on the fishing activity and the target resource (FAO 2003).

Figure 1: Map of Samoa
Source: Secretariat of the Pacific Community

2 Background of Samoa

Samoa is located between latitude 13°S and 15°S and between longitude 171°W and 173°W. Samoa has a total land area of 2,820 sq km. There are four inhabited islands, including the two main islands of Upolu and Savaii, and a few smaller uninhabited islands (Figure 1).

The population recorded in the 2006 census was 180,741: 52% males and 48% females. Seventy-six per cent of the total population lives on Upolu, with the north-west region being densely settled (Samoa Bureau of Statistics 2006).

Samoa has a tropical climate with a wet season from November to April and a dry season from May to October. The average annual temperature is 26.5° C and generally hot with 80% humidity even in dry seasons. (SPREP 1994).

Samoa has the smallest economic exclusive zone in the Pacific, just 120,000 sq. km, and a total reef area of 10,000 sq.km at 50 metres depth.

3 Status of coastal fisheries

3.1 Subsistence fisheries

Subsistence fishery is vital for Samoa; local people rely on the coastal and marine environment for much of their protein intake and livelihood. According to a 2006–2007 report compiled by Valencia, Mulipola, Tauaefa and Tuaopepe, subsistence fishing is the main fishery in Samoa, with an estimated value of WST 84 million and a volume of 13,686 tonnes. The seafood consumption per year is 10,508 tonnes with an average annual consumption of 59.4 kilograms per capita.

Most subsistence fishing (86%) takes place within the inner reef. Fishing on the reef slopes makes up 23%, while 4% of fishing is carried out a few kilometers from the slopes, where fishermen target bottom-fish and pelagic species.

The fish targeted are reef fish, mainly the surgeons (Acanthuridae), parrotfish (Scaridae), emperor (Lethrinidae) and goatfish (Mugillidae) families.

About 42% of households in Samoa have one or more fishers. The average fishing frequency recorded was 3.1 times per week with an average duration of 3.44 hours. The edible catch per unit effort was calculated at 2.24 kg per hour, with fishermen preferring early mornings and early evenings for fishing (Valencia et al. 2007).

3.2 Artisanal and commercial fisheries

Artisanal fishery in Samoa consists of inshore fishing; fishermen form small fishing groups using local canoes. Some may have scuba gear for better fishing at slope areas. The total inshore fisheries species landed and sold domestically within the fiscal year 2007–2008 was recorded as 145 tonnes with a value of 1.8 million SAT. This estimate was a 6% increase from the 126.5 tonnes recorded in the fiscal year 2006–2007. The main fishing selling outlets include the Apia Fish Market, the Fugalei Market, Salelologa Market in Savaii and along the roadside, mainly in the north-west of Upolu from Apia to Faleolo (Fisheries Division Annual Report 2006–2007, Fisheries Division Annual Report 2007–2008).

Over the seven years 2001–2008, the finfish group dominated landings with more than 60% of the total weight landed. Table 1 shows the main groups in which seafood are categorised with their estimated values and volumes during this period. The other predominant group was the invertebrates, which includes the bivalves, echinoderms and molluscs.

Table 1: Inshore fisheries volumes (tonnes) and values (WST million) by major fishery groups over seven years

Groups	2001–2002	2002–2003	2003–2004	2004–2005	2005–2006	2006–2007	2007–2008
Finfish	69.8	432.2	58.8	28.3	72.3	85.32	92.6
Crustacean	3.6	28.5	2.2	0.4	2.8	2.93	2.6
Invertebrates	3.3	3	6.5	44.7	26.3	24	34.1
Processed	39.1	65.5	29.8	17.4	13.3	14.22	15.7
TOTAL WT tonnes)	**115.8**	**529.2**	**97.3**	**90.8**	**114.7**	**126.47**	**145.0**
VALUE (WST-mil)	**1.54**	**4.30**	**1.15**	**1.15**	**1.50**	**1.50**	**1.80**

Source: Fisheries Division Annual Report 2007–2008

Commercial fishing in Samoa consists mainly of long-line tuna fisheries. The tuna are mainly exported by the two fish-processing companies in Samoa to markets in American Samoa, New Zealand, the United States of America and Japan.

According to the 2007–2008 Fisheries Division Annual Report, an estimated 3704.1 tonnes was landed from the entire Upolu base fleet, a 33% increase on the 2006–2007 volume. The catch consisted mainly of albacore tuna (82% of the total landings), then yellow-fin tuna (10.7%), big-eye tuna (1.5%) and the rest was skipjack, wahoo, broadbill fish and dolphins.

Trolling and bottom-fishing landed a total of 183.99 tonnes in 2007–2008 with an estimated value of WST 1.1 million.

Several factors affect commercial fisheries in Samoa. One is the two distinct seasons. The wet season (October–April) is normally considered the bad season, when catches from long-line and trolling drop. Fishermen believe the fish migrate elsewhere during this period. During the dry season (May–September), the catch rises, peaking from late June to August (Fisheries Division 2008).

4 Management: legislation

The Fisheries Act 1988 provides measures that assist the management of fisheries in Samoa. Part II of the Act focuses on fisheries conservation and development, the purposes of which are:

a. to promote the conservation, management and development of the fisheries of Samoa;
b. to promote the exploration of the living resources of the fishery waters;
c. to promote the protection and preservation of the marine environment.

The Fisheries Regulations 1995 provide for the management of fishing methods, size limits, management of designated fishery, and protection of areas with biological importance ,to name a few.

5 Community-based fisheries management programme in Samoa

The AusAID funded Fisheries Extension Programme established within the Fisheries Division in 1995 and currently known as the Community-based Fisheries Management Programme (CBFMP), started successfully and integrated well with traditional systems in village communities in Samoa. The overuse and degradation of inshore fishery resources were problems this programme identified and it aims to provide effective conservation and management measures to protect Samoa's coastal resources and marine environment.

The design of CBFMP recognises the social norms and customs of Samoan people. The village council is the decision-making body in the community, but the programme's process allows ample opportunity for all sectors to participate, the chiefs, untitled men/youth and women.

The CBFMP is a bottom-up approach, in which decisions regarding the management of marine resources are initiated by the communities themselves, whilst the Fisheries Division provides the technical support after decisions are made. The approach promotes community ownership; the village communities,who are the resource users, take charge and are more responsible in their actions towards the marine environment and its resources.

The CBFMP provides the platform for the fishing communities to develop village fisheries management plans, village bylaws and fisheries reserves, and empowers communities through their involvement in management, monitoring, enforcement and ownership. Figure 2 illustrates the process involved in establishing the programme and fisheries management plans in Samoan communities.

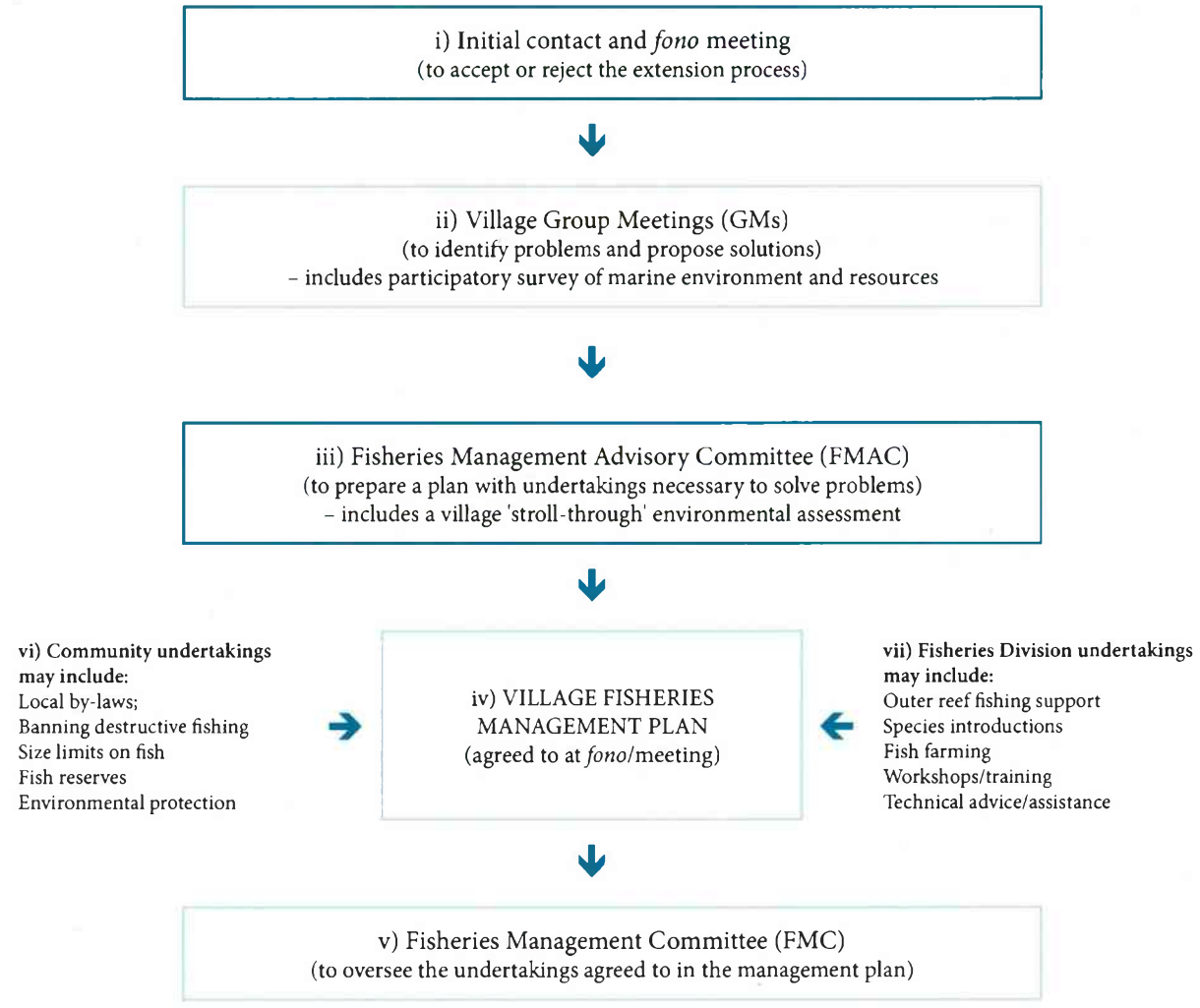

Figure 2: Samoa's Community-based Fisheries Management Programme Model

The programme is demand-based, so the process starts after a village approaches the Fisheries Division with their request to be involved in CBFMP. They then schedule a date on which the village council and the Fisheries Division will hold a formal meeting (*fono*) and commence collaboration as explained below.

5.1 Step 1: Initial contact and first meeting (*fono*)

At the first *fono* (Figures 3a and 3b), the Fisheries Division staff describe the programme and its importance and explain how it establishes a village's management plan. If the village council agrees, a date is scheduled for separate meetings for each of the three social groups in the village: chiefs *(matai)*, women *(tamaitai/aualuma)* and untitled/young men *(aumaga)*.

5.2 Step 2: Group meetings

As scheduled in the first *fono*, the Fisheries Division facilitates meetings in separate groups of chiefs *(matai)*, women *(tamaitai/aualuma)* and untitled/young men *(aumaga)*. These consultations follow a problem-solving process, in which the groups identify problems and causes, and also propose solutions and remedial action. In addition, they provide information regarding the present condition of their marine environment, their fish stocks and also changes that have taken place over time.

Figure 3a and 3b: Kava ceremony during the first meetings with village councils

Figure 4a: Meeting of untitled men.

Figure 4b: Meeting of women

The chiefs' group discusses rules and penalties for breach to further strengthen the protection of their fisheries resources and environment. Each of the three groups nominates at least three representatives who will form their village Fisheries Management Advisory Committee (FMAC).

5.3 Step 3: Village Fisheries Management Advisory Committee

The FMAC is responsible for drafting the village fisheries management plan with assistance from the Fisheries Division. After the group consultations, the FMAC will hold meetings to discuss and draw up their management plan, using the information gathered. The overseeing of the fish reserve and the implementation of the village's undertakings in the management plan will be coordinated by the FMAC.

5.4 Step 4: Village fisheries management plan and implementation

A village's fisheries management plan is presented to their village council for approval at the final *fono*. This plan contains the responsibilities of both the community and the Fisheries Division. Examples of these responsibilities are shown below.

- Ban the use of chemicals and dynamite for fishing.
- Ban the use of traditional plant-derived fish poisons.
- Establish fish reserve areas in which fishing is banned.
- Ban traditional destructive fishing methods (e.g. smashing corals/*tu'iga).*
- Organise the collection and destruction of crown-of-thorns starfish.
- Enforce (national) mesh size limits on fishing nets.
- Ban the dumping of rubbish in lagoon waters.
- Ban the commercial harvesting of sea cucumbers (Holothuroidea) for export.
- Ban the capture of fish less than the minimum size.
- Ban the removal of mangroves (in villages with mangroves).
- Minimise the use of underwater torches for spear fishing at night.
- Ban the commercial removal/mining of beach sand.
- Place controls or limits on the number of fish fences and traps.
- Prohibit the collection of live corals for exportation to the overseas aquarium trade.
- Ban the coral-damaging collection of edible anemones (Actinaria).
- Restore and replant corals in fish reserves.

The Fisheries Division undertakings are mainly to provide technical support and advice to communities on, for example, aquaculture development (e.g. conserving giant clams, restocking trochus, farming of fresh water tilapia). Also, regular demand-based technical training and workshops are provided to enhance community skills and to build the capacity of local villagers in sustainable utilisation, development, conservation and management of fishery resources.

5.5 By-laws

Another significant part of CBFMP is the formulation of a village's fishery by-laws. Consultations with villagers during group meetings produce rules for their management plans which also assist in the preparation of their by-laws. These by-laws are prepared in accordance with relevant provisions of the national Fisheries legislation and are accorded legal recognition in a court of law. The by-laws apply to all residents and fishers within villages, as well as to non-residents and the public. In most cases, local offenders in villages are fined by village councils, whilst outsiders who break the law are dealt with by the Fisheries Division.

The by-laws are established through the process below:

i. Consultation between the village community and the Fisheries Division
ii. Compilation of information and drafting

- Compiling of information collected and consultation with the village community by the Fisheries Division and the village fisheries management and advisory committee (FMAC)
- Submitted to the MAF legal advisor for input and forward to the Attorney General's Office for drafting and checking

iii. Endorsement
- Checking and endorsement by the Attorney General
- Forward to the legislative assembly for translation into Samoan

iv. Signing
- Approval and signing by the Chief Executive Officer of MAF

v. Publication and distribution
- Publication / gazette through the Savali newspaper
- Distribute to the village and adjacent villages for awareness

vi. Monitoring and enforcement by the village and the Fisheries Division

The above process explains the formulation and approval of by-laws, which can be enforced 14 days after being published/gazetted.

A village can penalise an offender for violation of a village by-law (e.g. fishing in the fish reserve) through their traditional system or the matter can be reported to the Fisheries Division to investigate and register the case in court on their behalf.

Currently, there are 67 by-laws, of which 65 are for individual villages and two are the district by-laws for Aleipata and Safata.

5.6 Monitoring

Significant village responsibilities include the daily monitoring and overseeing of their marine environment and their fish reserves. Ongoing technical support by the Fisheries Division is provided by various sections:

- Advisory/Extension Section: Liaise and work with villages under the CBFMP, conduct six-monthly reviews of village management plans, provide awareness and training, produce and disseminate information, and review the status of CBFMP;
- Aquaculture Section: Monitor aquaculture activities, such as giant clams nursery in fish reserves and trochus at stocking sites; monitor fresh-water tilapia fish farms; research and trial new and introduced commodities and improved farming systems;
- Enforcement Section: Enforce fisheries regulations, and investigate and process villagers' reported by-law infringement cases;
- Inshore Section: Carry out initial ecological coastal assessments and ongoing monitoring, such as annual fish reserves assessment; conduct research on a particular coastal fishery or a species that is of great importance to the livelihood of local communities.

5.7 Current coverage of the Community-based Fisheries Management Programme

Since the establishment of CBMP in 1996, about 91 coastal villages in Samoa —50 in Upolu and 41 in Savaii (Annex 1) — have established fisheries management plans.

The Fisheries Division Annual Report 2008 indicates that, of the 91 villages currently within the programme, about 70% are very active in fulfilling their undertakings, including establishing fish reserve areas. The other 30% implement only some of their responsibilities, such as enforcing fisheries legislation and regulations (e.g. the ban on destructive fishing, observing size limits, etc.) and have not demarcated fish reserve areas. The 50 villages in Upolu indicate that 72% are fully active in executing all management plan undertakings, whilst in Savaii about 60% do so.

5.7.1 Development of the Community-based Fisheries Management Programme

About 22 communities contain giant clam nurseries (Figure 5a). The trochus were stocked along the southwest to the southeast reefs of 28 villages in Upolu for rehabilitation after the tsunami. Also, coral replanting/gardening (Figure 5b) was conducted in the fish reserve areas of 18 villages along the south coast of Upolu as part of this rehabilitation programme.

Coastal fish aggregating devices (FADs) were introduced in 2008–2009 under a JICA-funded project to provide alternative fishing techniques. The aim was to encourage offshore fishing by communities using canoes, thus minimising fishing pressure within the lagoons and inshore areas. Simple designs were used, including floating FAD techniques made of bamboo (Figure 6b), as well as submerged FADs using ropes and buoys (Figure 6a).

Some communities acquired funding assistance from donors, such as the United Nations Development Programme, the Global Environment Facility and the Japan International Cooperation Agency, to fund fisheries development activities, as well as training and capacity-building programmes.

Figure 5a: Trials for trochus

Figure 5b: Artificial fish houses with transplanted corals

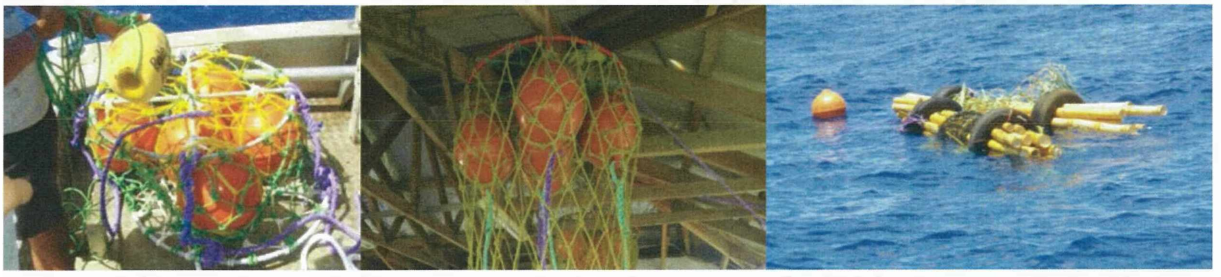

Figure 6 : (left and middle) Submerged FAD (Falealili, Manono, Lefaga and Falelatai villages) and (right) Bamboo FAD in Asau and Auala (Savaii)

5.7.2 Problems

The success of CBFMP, like any other community development, depends on the commitment and governance of a village council. Lack of commitment in some communities in the monitoring and implementing of their undertakings is the main problem that the CBFMP is facing. A few communities practise and enforce only some of their village plan undertakings, and others become less active due to their own internal disputes that lead to weak management and monitoring.

The closure of the Fisheries Division's hatchery in 2005 was a major setback in the restocking programme. Many villages requesting giant clams and other marine species to conserve within their fish reserves have been put on hold, as there is no facility for spawning marine species. However, some villages that received funding assistance from donors were able to purchase giant clams from the Tonga Fisheries hatchery, whilst others bought local clams from fishermen within their own villages.

The Fisheries Division's local budget is limited, which leads to a reduction in the proposed activities or new initiatives. Non-fisheries issues (e.g. sand mining, sedimentation) raised by communities are difficult to follow up, as there are different responsible agencies.

6 The ecosystem approach to coastal fisheries management

According to the Food and Agriculture Organization:

> ...an ecosystem approach to fisheries (EAF) strives to balance diverse societal objectives, by taking account of the knowledge and uncertainties of biotic, abiotic and human components of ecosystems and their interactions and applying an integrated approach to fisheries within ecological meaningful boundaries (FAO 2003).

The purpose of the ecosystem approach to fisheries management is to:

> plan, develop and manage fisheries in a manner that addresses the multiple needs and desires of societies, without jeopardizing the options for future generations to benefit from the full range of goods and services provided by marine ecosystems (FAO 2003).

The ecosystem approach emphasises the linkage of the sea and fishery resources to coastal and terrestrial ecosystems. The management of coastal fisheries takes into consideration a variety of factors such as:-

- coastal fisheries in Samoa, similar to other Pacific Islands, encompass a high diversity of finfish and invertebrate species;
- there is also a variety of fishing techniques and methods use by fishers in various groups (men and women) in different sectors (subsistence, artisan and commercial);
- there is a growing population and dependence on fisheries resources;
- fishery resources are exported to overseas markets;
- many human and land-based activities have serious impacts on coastal fisheries and marine resources.

These factors and impacts are exacerbated by natural hazards as Samoa, like other islands in the Pacific region, is vulnerable to tropical cyclones, tsunami and associated events.

6.1 The ecosystem approach to fisheries management: model formulation

While the CBFMP promotes conservation and sustainable management of fisheries resources, the ecosystem approach addresses other areas and issues that need to be strengthened within the existing CBFM programme. The Fisheries Division, in collaboration with other government agencies and non-governmental organisations, and with technical assistance from the Secretariat of the Pacific Community, has held consultations and workshops in order to incorporate the ecosystem approach into the CBFM Programme. The proposed model should reflect this approach and still maintain its appropriateness to Samoa and its communities. It is shown in Figure 7.

The model illustrates the current CBFM process of preparation and formulation of village fisheries management plans and it also shows the implementation of these plans through the undertakings of the villages and the Fisheries Division.

In order to integrate the principles of the ecosystem approach this model takes into account impacts and issues that are not dealt with by the Fisheries Division, such as environmental concerns. The main component is the Ecosystem Management Advisory Committee that is responsible for non-fisheries issues. How this committee works, is formed and connects to the model is discuss in detailed below.

6.1.1 Establishment of the Ecosystem Management Advisory Committee

The Ministry of Agriculture and Fisheries puts forward a submission to cabinet for the formation of the Ecosystem Management Advisory Committee (EMAC). This Committee deals with non-fisheries issues and activities that affect fishery resources and management. It can form a Technical Working Group of related agencies that will provide technical advice and take action on issues raised by communities. Payment of allowances to members of EMAC will be subject to government policies and cabinet approval. The relevant authorisation is the Agriculture, Forest and Fisheries Ordinance 1959 Section 13, which states:

> 13. Advisory and technical committees - (1) The Minister may from time to time appoint advisory or technical committees, and define the functions of any such committee.
>
> (2) If the Minister so directs there may be paid out of money appropriated by the Legislative Assembly for the purpose to the members of any such committee remuneration by way of fees, salary, or allowances and travelling allowances and expenses.

This gives power to the Minister for Agriculture and Fisheries to establish and appoint an advisory or technical committee. In this case, it is the Ecosystem Management Advisory Committee.

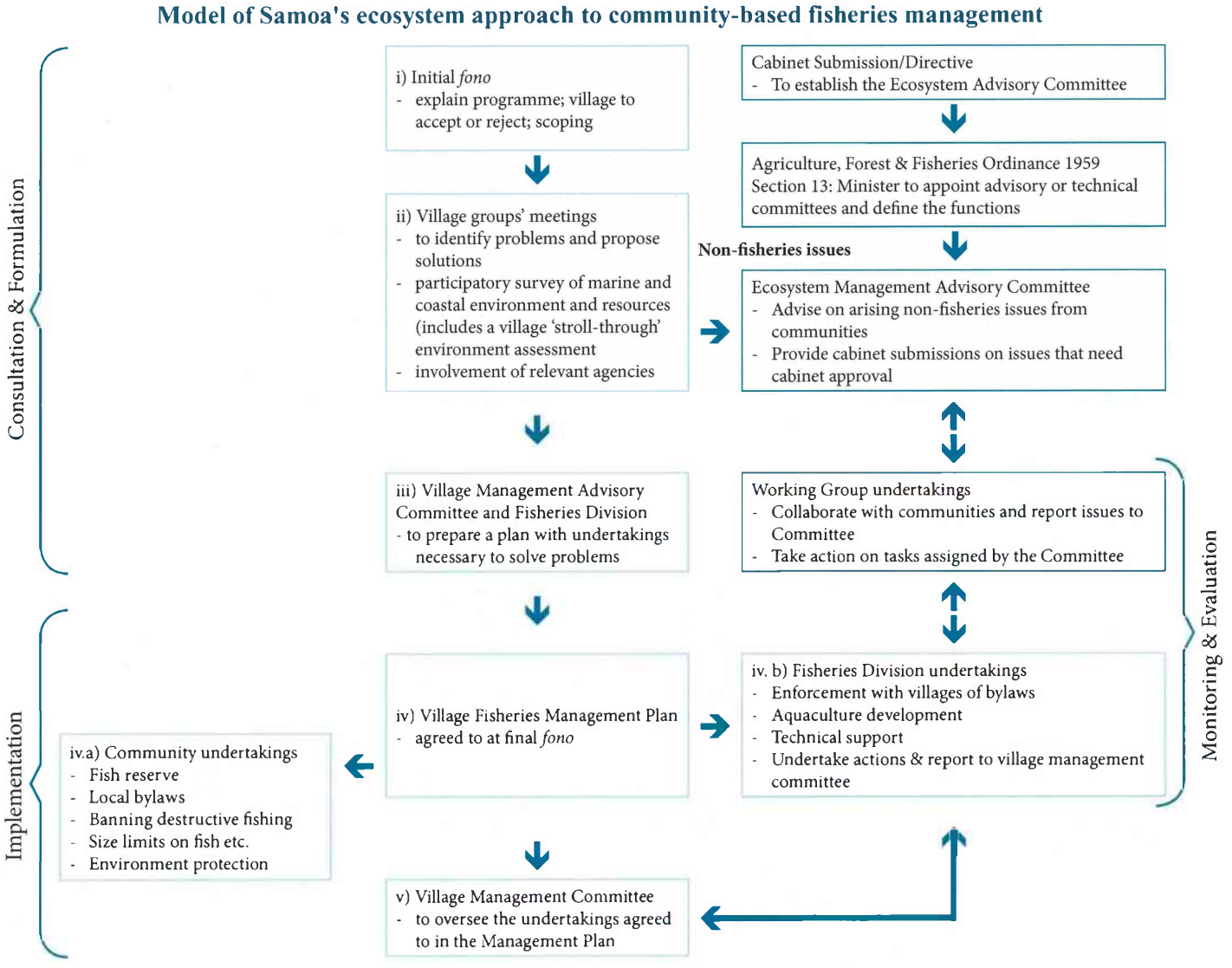

Figure 7: Model of Samoa's ecosystem approach to community-based fisheries management

6.1.2 Functions of the Ecosystem Management Advisory Committee

The Ecosystem Management Advisory Committee (EMAC) will provide advice to facilitate decisions on non-fisheries issues and problems raised by communities. The Terms of Reference (Annex 2) describe the functions and roles of this advisory committee.

6.1.3 Technical Working Group

The EMAC may delegate work to a Technical Working Group to take action on a community's issue. The Minister, on the advice of the CEO and Head of Fisheries, will appoint not only the members of EMAC but also those with relevant expertise, such as personnel from:

- Ministry of Agriculture and Fisheries
- Ministry of Natural Resources and Environment
- Ministry of Women, Community and Social Development
- Samoa Tourism Authority
- Non-governmental organisations
- Ministry of Works, Transport and Infrastructure
- Samoa Ports Authority
- Samoa Water Authority
- Ministry of Health

This group will take relevant action to either investigate or assess further an issue and provide results to EMAC. The Fisheries Division, as the secretariat of EMAC and the leading agency, follows up these actions and provides results to the community after consultation and decisions by EMAC.

6.1.4 Monitoring and evaluation

The Fisheries Division will continue to provide its ongoing technical support through monitoring activities, reviews and assessments by various sections for communities and stakeholders. The agencies in EMAC and the Technical Working Group will evaluate non-fisheries issues or problems raised by communities or relevant stakeholders, take relevant action and report back to EMAC.

6.2 Advantages of the ecosystem approach

The ecosystem approach to fisheries management is a holistic approach that includes non-fishery factors that affect fishery resources, such as human activities and many other developments and environmental impacts. The other important aspect of this ecosystem model is that the process of establishing village management plans should not be hindered by the activities and functions of the EMAC. The management plan process continues to operate in a reasonable time frame, following the steps that were discussed in detail earlier.

- Step 1: Initial contact and first meeting
- Step 2: Group meetings (consultation)
- Step 3: Village Fisheries Management Advisory Committee (formulation of management plan)
- Step 4: Approval of Village Fisheries Management Plan and implementation
- Step 5: Monitoring and enforcement

The ecosystem model also shows that, during the first meeting, the village council members are encouraged to present pressing issues that their village is facing relating to their coastal and marine resources and environment. This assists in

determining which related agencies should be asked to attend during the group meetings that follow. The group meetings in this model indicate the participation of other relevant agencies and organisations to provide advice or information on non-fisheries matters if raised by the communities. The identified non-fisheries issues are then referred to the Ecosystem Management Advisory Committee for discussion and remedial action or solutions.

7 Conclusion

The integration of the ecosystem approach into the current community-based fisheries management programme addresses many non- fisheries concerns raised by communities and other stakeholders. People in Samoa depend much on coastal fishery resources for consumption and earning an income. However, the management of these resources is not a priority to many. Other factors that have an impact on fishery resources are major issues that needed to be taken into consideration, such as environmental effects relating to human activities and economic development.

Even though there are new aspects presented by this ecosystem model, it is still appropriate to Samoa, its culture and communities. The Fisheries Division cannot work alone to assist communities to monitor and manage fishery resources; there is a need to involve many other government and non-government agencies, and this need is addressed in the proposed model of the ecosystem approach.

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Annex 1 – List of villages under the Community-based Fisheries Management Programme

UPOLU

1 Eva Anoama'a
2 Fagalii Vaimauga
3 Faleula
4 Afega
5 Fasito'o-tai
6 Leusoalii Anoama'a
7 Matautu-Faleapuna
8 Moamoa Faleasiu
9 Nofoalii Aana
10 Saoluafata Anoama'a
11 Satapuala Aana
12 Satui Fasito'o-uta
13 Solosolo Anoama'a
14 Tauao'o Faleasiu
15 Tuanai Tuamasaga
16 Vailuutai Aana
17 Vaiusu Faleata
18 Apai Manono-tai
19 Apolima-uta
20 Faleu Manono-tai
21 Faleu Manono-uta
22 Fuailolo'o Mulifanua
23 Gagaifo Lefaga
24 Matautu-uta, Lefaga
25 Lalovi Mulifanua
26 Lepuiai Manono-tai
27 Matafa'a Lefaga
28 Matautu Falelatai
29 Safaatoa Lefaga
30 Salua Manono-tai
31 Salua Manono-uta
32 Samatau Falelatai
33 Siufaga Falelatai
34 Savaia Lefaga
35 Tafagamanu Lefaga
36 Aufaga Lepa
37 Lepa
38 Matatufu
39 Poutasi Falealili
40 Salani Falealili
41 Saleilua Falealili
42 Saleapaga Lepa
43 Tafatafa Falealili
44 Vaovai Falealili
45 Satalo
46 Salesatele
47 Matautu Falealili
48 Malaemalu
49 Vavau Lepa
50 Vailoa Aleipata

SAVAII

51 Asau
52 Auala
53 Fagaee
54 Fagasa
55 Falealupo
56 Fatuvalu
57 Foailalo
58 Fogatuli
59 Papa Sataua
60 Neiafu
61 Sasina
62 Lefagaoalii
63 Sataua
64 Vaisala
65 Asaga
66 Faala Palauli
67 Fagamalo
68 Lelepa
69 Lu'ua Faga
70 Manase
71 Satuiatua
72 Papa Palauli
73 Pu'apu'a
74 Safa'i
75 Saleaula
76 Satalafai & Sapulu (Salelologa)
77 Saletagaloa & Foua (Salelologa)
78 Papaloa, Falefia & Malaeta (Salelologa)
79 Salimu Faga
80 Sapapalii
81 Sapini Faga
82 Sato'alepai
83 Siufaga Faga
84 Malae, Faga
85 Sasaai
86 Safua
87 Tafua
88 Vaisaulu Iva
89 Vaitoomuli
90 Salē, Saipipi
91 Satafaō, Saipipi

Annex 2 – EAFM Committee

Samoa National Community Ecosystem Management Advisory Committee [draft] terms of reference

Functions of the Ecosystem Management Advisory Committee

1 Introduction

The management of coastal fisheries is vital for further sustainability of marine and fisheries resources. Coastal fishery is extremely important in Samoa, as most people and communities depend on these resources for food security and livelihood. With high population, over-fishing and environmental and human impacts, there is pressure on coastal fishery resources. The community-based fisheries management programme under the Fisheries Division targets communities to manage fishery resources in a responsible and sustainable manner. However, there are many other factors that affect coastal fishery resources that the Fisheries Division cannot deal with; hence the need for this ecosystem approach that focuses on the integration of various ecosystems and related resources and activities that can affect the marine environment and fisheries. This ecosystem approach model includes an Ecosystem Management Advisory Committee (EMAC) that will provide advice and draw on other agencies to facilitate decisions on non-fisheries activities, impacts, concerns and problems raised by communities.

2 Establishment of the Ecosystem Management Advisory Committee (EMAC)

The Agriculture, Forest and Fisheries Ordinance 1959 Section 13 authorizes the Minister to formulate advisory or technical committees:

> ***13. Advisory and technical committees - (1) The Minister may from time to time appoint advisory or technical committees, and define the functions of any such committee.***
>
> ***(2) If the Minister so directs there may be paid out of money appropriated by the Legislative Assembly for the purpose to the members of any such committee remuneration by way of fees, salary, or allowances and travelling allowances and expenses.***

The Minister, then, on the advice of the Head of Fisheries and CEO, appoints an interim consultative committee to provide advice, including advice on non-fisheries issues, to facilitate decisions in matters related to the protection of the marine environment and its fishery resources. This Ecosystem Management Advisory Committee (EMAC) may form a Technical Working Group that consists of related agencies that can provide technical advice and take action on issues raised by the communities.

Cabinet directive

The Ministry of Agriculture and Fisheries puts forward a submission to cabinet for the formation of the EMAC. Payment of allowances to committee members will be subject to government policies and cabinet approval.

If there are issues beyond the authority of the EMAC, then the committee will prepare a cabinet submission in order to seek approval from cabinet before a final decision is made. The Ministry of Agriculture and Fisheries (Fisheries Agency) as the secretariat will facilitate this process.

3 Scope of work and operation

The EMAC will discuss and take action on non-fisheries issues that are impacting on fishery resources, e.g. sand mining, reclamation, agriculture/farming, tourism development, deforestation (coastal and riverbanks), waste disposal (sewage, chemical and other) and marine pollution, and infrastructure.

The operation of this committee is as follows:

- Chairperson: Minister of Agriculture and Fisheries and in his/her absence Associate Ministers or the CEO of MAF.
- Secretariat: ACEO - Fisheries Division. The secretariat is responsible for the circulation of agendas and meeting minutes. The secretary will follow up actions/tasks and report back to the committee on the results for further recommendations.

Members of the Advisory Committee: This Advisory Committee involves various agencies including:-

- Ministry of Agriculture and Fisheries
- Ministry of Natural Resources and Environment
- Ministry of Women, Community and Social Development
- Samoa Tourism Authority
- Non-governmental organisations (Samoa Umbrella for Non-governmental Organisations).

Meeting Schedule: The Committee will meet on a quarterly basis. The chairperson will call an emergency meeting when urgent issues arise.

Roles and Functions of the Committee

- Advise on issues arising from communities.
- Provide cabinet submissions on issues that need cabinet approval.
- Appoint a Technical Working Group to assess cases beyond Fisheries capacity and advise the committee on relevant and appropriate action.
- Coordinate tasks to relevant agencies/organisations for action.

Tasks of the Technical Working Group: This Technical Working Group (TWG) takes actions on non-fisheries problems or issues raised by a community. Some of their functions include:

- collaborating with communities and reporting issues to the Committee;
- taking action on a task assigned by the Committee;
- providing the results of activities to the communities for their information.

The Technical Working Group includes agencies such as:

- Ministry of Agriculture and Fisheries
- Ministry of Natural Resources and Environment
- Ministry of Women, Community and Social Development
- Samoa Tourism Authority
- Non-governmental organisations
- Ministry of Health
- Ministry of Works, Transport and Infrastructure
- Samoa Ports Authority
- Samoa Water Authority
- Electric Power Corporation.

Reporting and Documentation

- Communities' fisheries management plans to be available for agencies
- Cabinet submissions and approvals
- Quarterly meeting reports
- Reports by relevant agencies on tasks conducted
- Reports of results for communities