

Vanuatu National Roadmap for Coastal Fisheries: 2019–2030



Developed by staff from Vanuatu Fisheries Department with financial support from the governments of Australia and New Zealand.

Facilitated by the Pacific Community (SPC) and

Australian National Centre for Ocean Resource and Security (ANCORS, University of Wollongong)

Approved by the Minister of Agriculture, Livestock, Forestry, Fisheries and Biosecurity (MALFFB) on 20th March 2019, Port Vila

Vanuatu National Roadmap for Coastal Fisheries: 2019–2030



Vanuatu Fisheries Department

PMB 9045 Ministry of Agriculture, Livestock, Forestry, Fisheries and Biosecurity Port Vila, Vanuatu



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Foreword

With two-thirds of Vanuatu's people living along the coast, our people depend on fish and other marine resources for food and income. In times of hardship – when natural disasters strike or yields fail – we turn to the sea for sustenance. With increasing pressures (e.g. population growth, natural disasters and climate change) facing Vanuatu, managing our coastal fisheries is crucial now and for generations to come.

Ni-Vanuatu have long managed marine resources as an integral part of local *kastom*. Although, local *kastom* has been integrated into different government and non-government fisheries management programmes, the instituted connections between coastal resource management and local *kastom* nonetheless have remained weak. To help meet the food security and livelihood needs of the men, women and children of Vanuatu, the Fisheries Department has united its plans, efforts and resources to secure sustainable management of coastal resources. As such, a coastal fisheries division was established within the department in late 2017. This national roadmap was developed to define the department's coastal fisheries management priorities and guide their implementation along desired pathways.

This roadmap comes at a time when the department is implementing policy directives from the *Vanuatu National Fisheries Sector Policy 2016–2031*. It will function as a strategic guiding tool to help the department set annual work plans and monitor progress toward strengthening service provision and response to needs in the coastal fisheries sector. The roadmap moreover aligns with the *The People's Plan (National Sustainable Development Plan)*, and with other (sub) regional and international coastal fisheries policy documents, most significantly *A new song for coastal fisheries – pathways to change: The Noumea strategy*, developed by the Pacific Community (SPC).

The roadmap sets out a vision for coastal fisheries in Vanuatu to "secure sustainable coastal fisheries, underpinned by community-based approaches to ensure the resilience and well-being of our people" by 2030. It will allow the Fisheries Department to provide the necessary services to Vanuatu's coastal communities and ensure resource stocks remain healthy, productive and resilient.

It is with great pleasure that I hereby approve the *Vanuatu National Roadmap for Coastal Fisheries: 2019–2030*. May God bless us all in our collective journey forward; *Yumi Go*.

Honourable Hosea NEVU (MP)

Minister of Agriculture, Livestock, Forestry, Fisheries and Biosecurity

Approval for the Vanuatu National Roadmap for Coastal Fisheries: 2019-2030

The Vanuatu National Roadmap for Coastal Fisheries: 2019–2030 is made in accordance with Part 3 Section 6(1) (a) of Fisheries Act No. 10 of 2014.

By virtue of powers conferred upon the Minister Responsible for Fisheries, under Section 6(1) (a) of the Fisheries Act No. 10 of 2014, notice is hereby given for approval of the Vanuatu National Roadmap for Coastal Fisheries: *2019–2030*.

COMMENCEMENT DATE

This national roadmap commences on the date on which it is approved by the Minister.

Made at Port Vila this 20th day of ... Mauc

Minister of Agriculture, Livestock, Forestry, Fisheries and Biosecurity



Preface

The National Roadmap for Coastal Fisheries is designed to guide the sustainable development of coastal fisheries for the benefit of Vanuatu. The roadmap supports the objectives of the Vanuatu National Fisheries Sector Policy 2016-2030 and, in acknowledging the great diversity and dynamics of the sector, will be subject to review at the mid-point of its implementation. The roadmap also provides a framework for Vanuatu's implementation of the principles and commitments to community-based fisheries management set out in *A new song for coastal fisheries – pathways to change: The Noumea strategy* (henceforth "New Song Noumea Strategy"), developed by the Pacific Community (SPC).

Acknowledgements

This coastal fisheries roadmap would not have been realised without the immense contributions of many people and organisations. First and foremost, the Vanuatu Fisheries Department (VFD) would like to acknowledge the involvement and contributions of all stakeholders involved in the consultation workshops that preceded publication of this roadmap and who provided valuable information and insights throughout the development of the roadmap. VFD also would like to thank Jason Raubani from SPC, and Neil Andrew and Dirk Steenbergen from University of Wollongong, for their collective facilitation of the workshop series that formed the basis of this roadmap, and for their overall guidance in the formulation and consultation process.

VFD is grateful for the funding support provided through the ACIAR- and DFAT-funded Pathways Project (FIS-2016-300), which made development of the roadmap possible. Further funding from the governments of Australia and New Zealand enabled SPC to assist with the consultation, drafting and publication of this roadmap.

Finally, VFD would like to acknowledge the contributions of its hardworking staff for their time and insights and for continuously driving the national process in realising this important guiding document. Tankio tumas to all!

Acronyms

CBFM community-based fisheries management

EAFM ecosystem-based approaches to fisheries management

EIA environmental impact assessment

FAD fish aggregating device

FAO Food and Agriculture Organization of the United Nations

ICT information communication technology

MALFFB Ministry of Agriculture, Livestock, Forestry, Fisheries and Biosecurity

MCS monitoring, control and surveillance

MoA memorandum of agreement
MoC memorandum of collaboration
MoU memorandum of understanding
NCD non-communicable disease

NSDP National Sustainable Development Plan

SDG Sustainable Development Goals SOP standard operating procedure

ToC Theory of Change

VFD Vanuatu Fisheries Department



Background and justification

Coastal fisheries in Vanuatu

Vanuatu is comprised of more than 80 islands with a total population of approximately 270,000 people. With around 2,528 kilometres of coastline and 433 square kilometres of reef, lagoon, mangrove and estuarine systems that support coastal fisheries, the social and economic development of the country depends to a large degree on these fisheries. Two-thirds of Ni-Vanuatu lives within one kilometre of the coast and most coastal people depend on fisheries as a key source of their livelihood and food. Fish, moreover, are central to the Ni-Vanuatu cultural identity. Yet, important coastal fisheries in Vanuatu are, to varying degrees, declining under increased pressure of population growth and market expansion among other external drivers of change. Sustained management of the fisheries is essential for food security and livelihoods.

Coastal fisheries operating up to 12 nautical miles from the coast are complex and diverse, with a variety of species and fishing gears. Defining user rights in Vanuatu is subject to several overlapping jurisdictions, including customary tenure systems. Such sectoral complexity can cause conflict and challenges to centralised policy approaches. Given this context, it is important to map pathways toward achieving a collective vision for sustainable coastal fisheries. This roadmap comes at a time when Vanuatu is implementing strategic actions and policy directives from the *Vanuatu National Fisheries Sector Policy 2016—2031*.

Institutional context

The Vanuatu Fisheries Department (VFD), under the Ministry of Agriculture, Livestock, Forestry, Fisheries and Biosecurity (MALFFB) is the lead government agency charged with ensuring the sustainable management, development and conservation of fisheries resources in Vanuatu. Other important bodies include the Department of Environmental Protection and Conservation, provincial governments, and communities.



Legislative context

The primary legal instrument for the sustainable management, development and conservation of fisheries resources in Vanuatu is the *Fisheries Act No. 10 of 2014*. Other relevant legal instruments include the *Environmental Protection and Conservation Act No. 12 of 2002*, *Decentralization and Local Government Regions (Amendment) Act No. 13 of 1997*, *Vanuatu Foreign Investment Promotion Act No. 15 of 1998*, *Maritime Zones Act No. 6 of 2010*, and the *Constitution of the Republic of Vanuatu*.

The purpose of the *Fisheries Act* is to conserve, manage and develop fisheries in Vanuatu in order to ensure long-term sustainable use of fisheries resources for the benefit of the people of Vanuatu. More specifically, the act mandates the VFD to control and regulate access to fisheries resources and to make regulations that ensure the sustainable utilisation of fisheries resources.

The Environmental Conservation Act provides for the protection of the environment and biodiversity. The Decentralization and Local Government Regions Act provides for the powers of provincial governments to pass by-laws in support of fisheries resources management within six miles of their respective provincial waters. The Vanuatu Foreign Investment Promotion Act provides a list of fishing activities reserved for Ni-Vanuatu. The Maritime Zones Act provides for the demarcation of the Vanuatu waters into zones where different fishing activities may be permitted. Finally, the Constitution stipulates land ownership and rule of custom in land ownership and use, providing the legal basis for communities or landowners to assume ownership and responsibility over the sustainable utilisation of coastal reef fisheries within their respective areas.

Policy context

Two national overarching policies are central to the development of sustainable coastal fisheries, namely *The People's Plan: National Sustainable Development Plan (NSDP) 2016—2030* and the *Vanuatu National Fisheries Sector Policy 2016—2031* (Figure 1). The strategic objectives formulated in these policy documents lay the foundation for rural development and fisheries management in Vanuatu. Other policies outside the immediate domain of fisheries, particularly the *Vanuatu National Ocean Policy* and those pertaining to national health and environment are important in informing the *National Fisheries Sector Policy*. The chart below illustrates the national policy context and the relationship of this strategy with legislation, policies, strategies and work plans relevant to coastal fisheries.



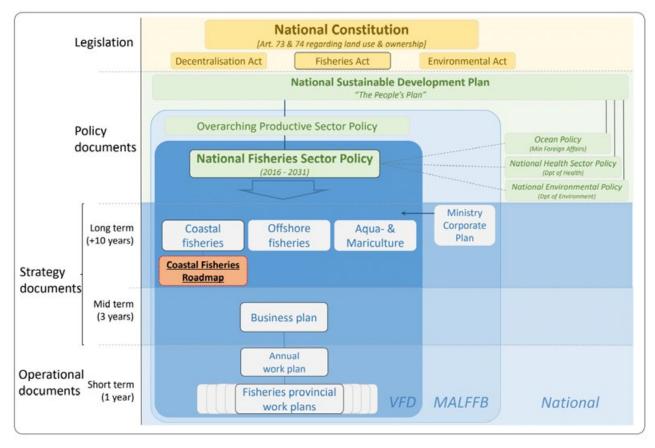


Figure 1. National policy context of the Vanuatu Fisheries Department, with specific focus on coastal fisheries



This roadmap aligns with (sub-)regional and international policies, particularly those set out in the Melanesian Spearhead Group's (MSG) roadmap for coastal fisheries, the Pacific Community's (SPC) *New Song Noumea Strategy* and the United Nations (UN) Food and Agriculture Organization's (FAO) *Voluntary Guidelines for Securing Small-Scale Fisheries*. Table 1 presents details on the policy context.

Table 1. Subregional, regional and international policies relevant to coastal fisheries management in Vanuatu

Sub-regional policy

Melanesian Spearhead Group roadmap for inshore fisheries management and sustainable development 2015-2024 Vision: "Sustainable inshore fisheries, well managed using community-based approaches that provide long-term economic, social, ecological and food security benefits to our communities" through the following objectives:

- "1. Implement effective policies, legislation, management frameworks and financing mechanisms [...]
- 2. Conduct education, awareness raising and the provision of information on the importance and management [...]
- 3. Manage, maintain and restore fisheries stocks (e.g. BDM) to secure long-term economic and social benefits [...]"

Regional policy

A new song for coastal fisheries – pathways to change: The Noumea strategy (2015)

Vision: "Sustainable well-managed inshore fisheries, underpinned by community-based approaches that provide food security, and long-term economic, social and ecological benefits to our communities." Overarching outcomes:

- "1. Improved wellbeing of coastal communities; and
- 2. Productive and healthy ecosystems and fish stocks"

Future of Fisheries: A Regional Roadmap for Sustainable Pacific Fisheries (2015) The Roadmap anticipates a 10-year timeframe for all Pacific Island countries to put in place policies and legislation that provide for the involvement of coastal communities in the management of their fisheries resources. Communities will drive local management regimes with clear user rights, supported by national controls on export commodities.

International policy

Food and Agriculture Organization's (FAO) Code of Conduct for Responsible Fisheries Article 6.18: "Recognizing the important contributions of artisanal and small-scale fisheries to employment, income and food security, States should appropriately protect the rights of fishers and fishworkers, particularly those engaged in subsistence, small-scale and artisanal fisheries, to a secure and just livelihood, as well as preferential access, where appropriate, to traditional fishing grounds and resources in the waters under their national jurisdiction."

FAO's Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (2015) Objective 1.1 b: "to contribute to the equitable development of small-scale fishing communities and poverty eradication and to improve the socio-economic situation of fishers and fish workers..."

Sustainable Development Goal #14 $"[\ldots]$ sustainably use the oceans, seas and marine resources for sustainable development"

Threats to coastal resources

Vanuatu faces threats to its coastal resources both within and beyond VFD's influence. Coastal fisheries provide an easily accessible resource on which coastal communities rely not only for food security but also for income generation. Dependence on the cash economy is posing a direct threat to coastal fisheries resources in many places, particularly where there is easy access to markets. Declines have been measured, for example, in all economically important species, such as sea cucumber, trochus, green snail, crustaceans and giant clam. In areas close to urban centres, declines in reef finfish resources and shellfish are particularly evident. These trends are made worse by people turning to unsustainable practices to salvage income from diminishing yields as coastal resources become scarce, ultimately leading to the collapse of important ecosystems.

Examples of external threats that are out of the direct control of VFD include:

- population growth;
- natural disasters (e.g. cyclones, volcanos, crown-of-thorn starfish outbreaks);
- climate change (e.g. sea surface temperature rise and acidification);
- pollution; and
- coastal development, and associated coastal runoff and siltation.

In part due to the threats noted above, Pacific-wide, food security assessments have indicated that Vanuatu can expect to experience significant deficits in its coastal fish supply by 2035 (Bell et al 2015, https://doi. org/10.1016/j.marpol.2015.02.010) if fisheries are not managed well. The coastal fisheries challenge in Vanuatu requires multipronged approaches to coastal fisheries management, whereby clear and enforceable fisheries rules and regulations are applied. The coastal fisheries sector needs to adapt and respond to these external pressures to mitigate their impacts as part of a broader policy response.

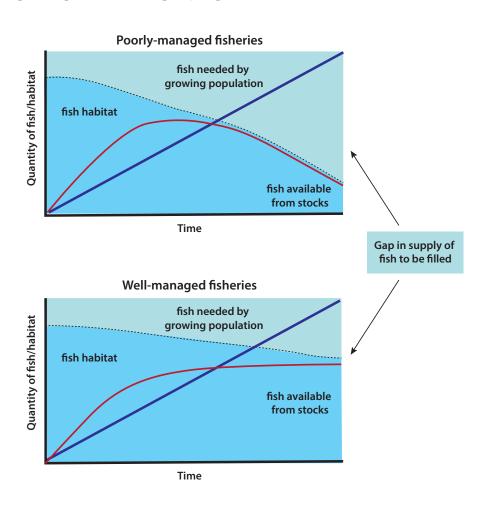


Figure 2. Impact of poor management of stocks and habitats on seafood supply. Source: Bell et al. 2011. Vulnerability of tropical Pacific fisheries and aquaculture to climate change. The Pacific Community, Noumea.

Challenges to sustainable management and development of coastal fisheries

Enforcement and compliance

Enforcement of fisheries laws and regulations and compliance to them remains a significant challenge to coastal fisheries managers. Insufficient human resources, capacity and financial resources means that management regimes and institutions need to continue to evolve to better serve the Vanuatu population, which is widely and unevenly spread.

Institutional barriers

The primary barriers to decentralised coastal fisheries in Vanuatu include the current institutional structure, policy orientation, and lack of clarity around local access rights and extent of equitable and inclusive local decision-making.

With its administrative centres in Port Vila and Luganville, VFD is the mandated authority for fisheries management. Coastal fisheries, however, are also subject to management by provincial and area council-level authorities, as well as clan-level authorities based on local land and marine area tenure. Effective management under such overlapping jurisdictions is difficult. Provincial authorities, for example, lack capacity and resources to ensure effective implementation of policy while, at community-level, unclear tenure and eroding community cohesion impede good coastal fisheries management.

Although Vanuatu's two key legal and policy documents pertaining to fisheries (the *Fisheries Act* and the *National Fisheries Sector Policy*) provide a general framework, a strategy specific to coastal fisheries is needed and should explicitly address effective management, local development objectives, and equitable access and benefits for all members of society. Opportunity lies in Vanuatu's strong tradition in applying community-based approaches to fisheries management in coastal communities and, therefore, forms a critical vehicle for implementation of a strategic coastal fisheries plan. Various initiatives are already underway and have resulted in community networks (e.g. Vanua'tai network), which offer an important foundation for the coastal fisheries roadmap.



Need for a national roadmap for coastal fisheries

In late 2017, VFD initiated a strategic planning process to formulate a vision for coastal fisheries and develop a subsequent strategy that could operationalise that vision. An initial workshop involving VFD staff from various government levels helped define the vision and overarching outcomes needed to develop coastal fisheries sustainably. These were then refined and expanded to include strategies, targets and operationalisation components in subsequent workshops involving relevant stakeholder groups from government departments in Vanuatu.

The resulting framework provides strategic guidance that is responsive to the existing policy landscape and operational guidance for implementation (Figures 3 and 4). Starting with the vision for coastal fisheries in Vanuatu, the strategic planning process worked backwards to articulate the high-level outcomes needed to achieve the vision. Working with these outcomes in mind, focal action areas were identified as well as enabling conditions needed to realise them. The latter section provides an operational plan of activities, as well as the outputs and indicators used to measure progress. The activities are classified according to their short-, mid- or long-term impact. Successful execution of the focal action areas requires particular cross-cutting, enabling conditions to be present that allow for the effective implementation of all activities.

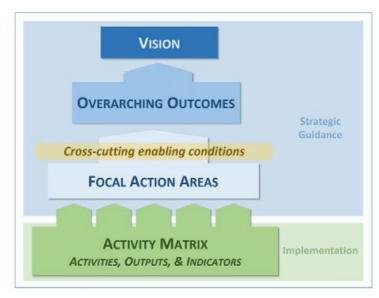


Figure 3. Structure of the coastal fisheries roadmap





A national roadmap for coastal fisheries in Vanuatu: 2019–2030

Vision

By 2030, secure sustainable coastal fisheries, underpinned by community-based approaches, to ensure the resilience and well-being of our people.

Key guiding principles

The following key principles will guide the overall implementation of this roadmap.

- 1. Recognise women's contribution to coastal fisheries and promote more inclusive fisheries management and livelihoods.
- 2. Recognise diverse users and their roles and responsibilities in coastal fisheries, promote community-based fisheries management (CBFM)¹, co-management, and capacity building, as well as the motivation and empowerment of communities.
- 3. Promote and strengthen partnership and networking with all stakeholders of the coastal fisheries at the national, sub-national, regional and sub-regional levels, and with international players.
- 4. Uphold and promote ecosystem-based approaches to fisheries management (EAFM) to ensure a holistic approach to decisions taken with respect to the management and development of coastal fisheries.
- 5. Promote good governance, best practice and accountability in coastal fisheries management and sustainable development.
- 6. Recognise the complexity and challenges in coastal fisheries (including with respect to the geographic spread and remoteness of islands and people of the country), promote innovation and use of information and communications technology (ICT) in the management and monitoring, control and surveillance (MCS) of coastal fisheries.

¹ To comply with standard terminology of VFD, we use 'CBFM' in this document to capture community-based approaches to coastal fisheries management, but acknowledge many different terms are used to refer to the same set of principles and approaches (e.g. CBCRM, CBCFM, CBRM, CBEAFM etc.).



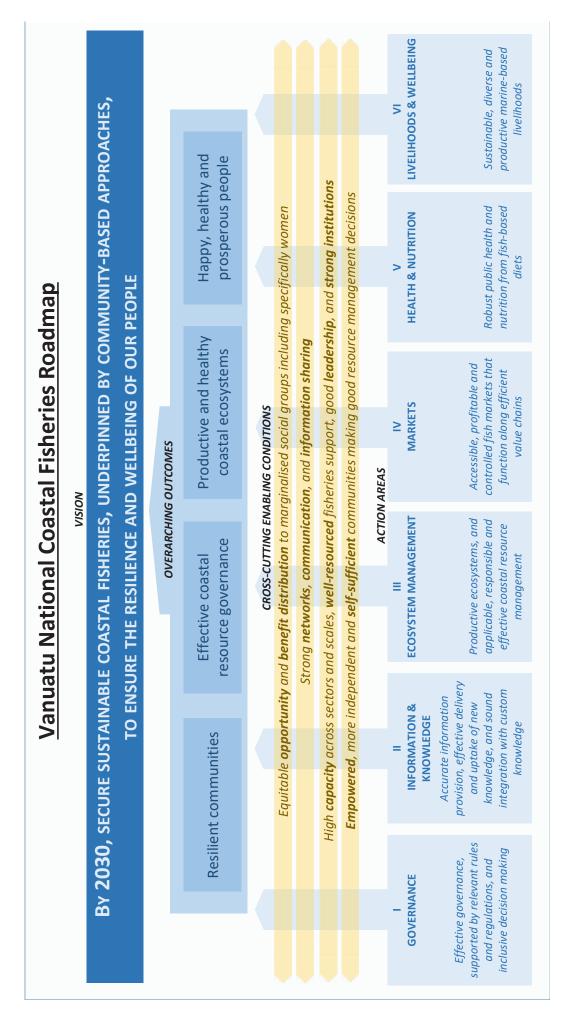


Figure 4. Vanuatu's national coastal fisheries roadmap framework

Four overarching outcomes

Resilient communities: Communities are well equipped, connected and have the capacity to monitor, address, withstand and adapt to changing conditions. These changes may vary in time and scale from acute, immediate and intense shocks, to slow shifts in the environment. Community self-sufficiency means dependence on development aid is reduced, in part through local capacity building.

Effective coastal resource governance: Various bodies of VFD, including its provincial sub-offices, in collaboration with other government and non-government agencies (e.g. Department of Environment), ensure the effective governance of coastal zones and the resource stocks in them. Roles of civil society in management, regulation enforcement and behaviour control are integrated into governance frameworks, which provide for forums for inclusive design and decision-making processes.

Productive and healthy coastal ecosystem: Coastal ecosystems function optimally and provide important ecosystem services despite climate change. Economically important resource stocks are thriving under responsible harvesting regimes. People understand eco-dynamics and connectivity between ecosystems in relation to their practices. Consequently, anthropogenic damage is minimal.

Happy, healthy and prosperous people: Social, economic, political and physical living environments foster the well-being of local communities. Although the state of well-being is often understood from a personal perspective, the basic conditions of economic prosperity, security, food abundance, stability and good health are attained through effective resource management (given the centrality of coastal resources in people's lives in Vanuatu).

Six focal action areas

In order to achieve the overarching outcomes and, ultimately, the vision for coastal fisheries, activities need to be implemented in six focal areas. Collaboration with other relevant government departments is implicit in the execution of activities within each focal action area (e.g. the Attorney General's Office and Police Maritime will be engaged with respect to "I Governance"; the National Statistics Office and National Disaster Management Office (NDMO) will be engaged with respect to "II Information and Knowledge"; the Department of Environment will be engaged with respect to "III Ecosystem Management"; the Ministry of Trades will be engaged with respect to "IV Markets"; the Ministry of Health will be engaged with respect to "V Health and Nutrition"; and the Department of Cooperatives will be engaged with respect to "VI Livelihoods and Well-being").

I GOVERNANCE

The existing Vanuatu fisheries legislation does not adequately enable CBFM and EAFM principles. The design of new or amended legislation must be transparent, inclusive and fit-for-context. In part, this will ensure that the formulation, implementation and enforcement of rules and regulations occur across multiple scales and sectors. Principles of inclusiveness and decentralisation should guide this design process, to ensure that opportunity is distributed fairly and that local institutions are recognised. With its fisheries management and development mandate, VFD has a vital role to play in integrating bottom-up management, practice and knowledge. VFD will provide support and enforce a coherent set of overarching, enabling laws and policies at the national level with regard to coastal fisheries.

Actions:

- 1.1 Foster collaboration among relevant national departments and ministries.
- 1.2 Strengthen collaboration among governance institutions at different scales, particularly with provincial governments, area councils and community authorities.
- 1.3 Develop and implement laws, regulations and by-laws relevant to community development and coastal fisheries and which enable CBFM and EAFM principles.
- 1.4 Develop applicable and achievable control systems for fishing activity.
- 1.5 Strengthen community-level fisheries resource governance.
- 1.6 Enable VFD to implement coastal fisheries strategy activities, with particular reference to developing a SOP for adequate disaster relief response.

II INFORMATION AND KNOWLEDGE

Accurate and applicable information will be as important as the means by which it is transferred to stakeholders. The extent of uptake of new knowledge hinges on creative, appropriate and ongoing modes of delivery. Integrating technical insights from science with existing (traditional) knowledge, in part, ensures learning and local support for management interventions.

Actions:

- 2.1 Develop a strategy for better communication between VFD and stakeholders, and with civil society.
- 2.2 Regularly monitor and evaluate the state of coastal fisheries (both centrally and by community groups to enable decentralised coverage).
- 2.3 Develop innovative modes of stakeholder engagement and awareness-raising campaigns to promote CRFM
- 2.4 Conduct research to inform and improve practice, and increase understanding of the importance of fish to livelihoods, nutrition and health.
- 2.5 Integrate scientific knowledge with existing traditional knowledge.
- 2.6 Strengthen knowledge and skills of VFD staff at national, provincial and area levels to be able to execute VFD strategic priorities.

III ECOSYSTEM MANAGEMENT

The principles of EAFM are vital to maintain the multiple roles that coastal fisheries play in people's livelihoods as well as the broader functions of marine and terrestrial systems. CBFM approaches will enable the integration of diverse interests to help alleviate challenges that may ensue as a result of competing interests.

Actions:

- 3.1 Align fisheries management (planning, design, implementation and evaluation) practices to holistic CBFM and EAFM principles, which are informed by sound fisheries science and methodology.
- 3.2 Improve coastal fisheries stocks and habitats.
- 3.3 Secure formal rights of access and management over customary tenure.
- 3.4 Strengthen communities (and connections between the communities and VFD) to manage fisheries resources.



IV MARKETS

It is critical to develop sustainable market systems through improved social organisation, infrastructure improvement and mechanisms to allow for reliable supply. Access to markets in order to sell and buy fish must be ensured for the future, and increased through improvements to the reliability and consistency of connections to domestic urban markets.

Actions:

- 4.1 Improve fish quality, availability and affordability in markets.
- 4.2 Improve access to markets between producers and consumers (in rural and urban areas, namely Luganville and Port Vila).

V HEALTH AND NUTRITION

Fish is an important component of the diet of most Ni-Vanuatu and critical to the improved nutrition of vulnerable groups (e.g. pregnant women; children under five years of age). It is important to inform community members of the micronutrient value of fish, particularly in child development stages. Post-harvest handling needs to be hygienic to minimise diet-related disease.

Actions:

- 5.1 Promote consumption of fresh nutritious fish as part of a well-balanced diet.
- 5.2 Focus on improving diets among specific social groups (e.g. women and children).
- 5.3 Regulate food safety standards at fish markets.



VI LIVELIHOODS AND WELL-BEING

The livelihood activities of locals need to be broadened, diversified or improved to ensure a reliable stream of income. Livelihood improvement strategies may help develop livelihood enhancing, diversifying and/or innovation interventions. Household income from marine-based activities can be improved with new technology, higher value-adding (i.e. more benefit from fewer fish) and proper management (i.e. appropriate limits and scale of growth to sustain resource use). It is important that livelihood portfolio improvements focus on raising the standard of living and both individual and community well-being, not only economically but also socially, culturally and politically.

Actions:

- 6.1 Improve fish production and fish-based (wild capture) livelihoods and innovate new sustainable income activities (as appropriate to changing contexts, including building on practices emerging locally in response to climate change).
- 6.2 Promote innovation and development of appropriate aquaculture production in rural areas to support livelihoods and nutrition.
- 6.3 Promote inclusion of women and other social groups in CBFM and benefit sharing.

Cross-cutting enabling conditions

For all actions to feed into the overarching outcomes successfully, four key enabling conditions must be met.

Firstly, all interventions must be designed to ensure equitable opportunity for engagement and benefit within and across stakeholder groups. This requires mechanisms for broad social inclusion to minimise, for example, gender-based marginalisation. Effective checks and balances are essential to ensure processes are fair and accountabilities are in place.

Secondly, as noted in strategic policy objective 8 in the *National Fisheries Sector Policy*, strong networks are imperative to interactive communication and information sharing. Opportunities to voice grievances, resolve conflicts, learn across scales and develop support systems will facilitate better implementation of the roadmap while also ensuring longevity of sustainable practice beyond 2030.

Thirdly, capacity is needed to implement the roadmap. Local resource users need to be equipped with necessary skills, knowledge and resources to carry out fisheries management and to realise private and collective livelihood aspirations. Legitimate leadership at all levels will be critical for stakeholder groups to work collectively, as will the institutional structures that can overcome potential disadvantages of an overdependence on individual leaders.

Lastly, activities under the roadmap should contribute to further empowering communities, for example with a formal and effective mandate to control access to resources. These decisions should be guided by locally developed, nationally endorsed, management tools that set out appropriate directives on what, how, who, and where rules and regulations are applicable.



Strategic milestones

1	Short term (3 years)	Medium term (6 years)	Long term (11 years)
Governance	≥9 new fisher associations established and ≥20 authorised officers trained National coastal fisheries regulations reviewed to reflect CBFM and EAFM principles ≥4 interdepartmental MoUs signed (outlining data sharing agreements) and CF forum established ≥45 VFD (national and provincial) staff received professional training in CBFM, project management, data management, and reporting	Half of coastal villages have a functioning fisher association and an authorised officer Web-based coastal licencing system piloted SOPs in place for disaster response, MCS, small vessel inspection, and prosecution of violations	All coastal villages have a functioning fisher association and an authorised officer Web-based coastal licencing system in operation
Information & knowledge	VFD webpage established, maintained and regularly updated Communication strategy developed and implemented	E-reporting on implementation in place for all project sites or where fisheries work is taking place Central data management platform established VFD fundraising working group established and 1 successful funding application by the working group	- ≥4 national officers completed further postgrad and doctoral education
Ecosystem management	 SOP for stock/habitat assessment and monitoring completed and ≥6 stock assessments completed ≥6 communities with new CBFM plans reflecting EAFM principles. 	≥12 new stock assessments completed National database for community support requests developed and regularly updated	Quota system developed for priority coastal fisheries
Market	 Training and material modules developed for (i) post harvest fish handling and storage, and (ii) value adding Central fish markets in Port Vila and Luganville functioning and effectively monitoring traceability of fish 	 24 self-functioning rural fish distribution points (e.g. community fish market with cold storage) 	 All (rural and urban) fish markets monitoring fish trade, with data fed into national database
Health & nutrition	 Diagnosis research on fish-based nutrition and diets completed in ≥3 communities and training / awareness materials developed Guidelines for seafood safety standards developed for coastal fisheries 	 Training in fish-based nutrition, fish handling and storage carried out in ≥20% of active fishing communities. Monitoring system for seafood safety standards from coastal fisheries (inspection and certification) in Port Vila, Luganville, Lakatoro, and Lenakel Awareness material on fish-based nutrition disseminated to half of fishing communities 	Training in fish-based nutrition, fish handling and storage carried out ≥80% of active fishing communities Requirement for coastal seafood safety standards for coastal fisheries implemented and monitored in ≥90% of community fish markets Awareness material on fish-based nutrition disseminated to all active fishing communities
Livelihoods & wellbeing	 Village profile database on coastal livelihoods developed, with 220% of active communities included Develop FAD management plan involving SOP for deployment, tracking, establishing management and monitoring Study on livelihoods and well-being of fishers and fishing communities completed and appropriate measures developed 	Half of coastal communities included in livelihood village profile database 240% of FADs are monitored and tracked with data fed into national database Appropriate community-level livelihood skills training conducted in all coastal communities with solar freezers	All coastal communities included in livelihood village profile data-base

Figure 5. Short-, medium- and long-term milestones of Vanuatu's coastal fisheries roadmap





Monitoring, evaluation and learning

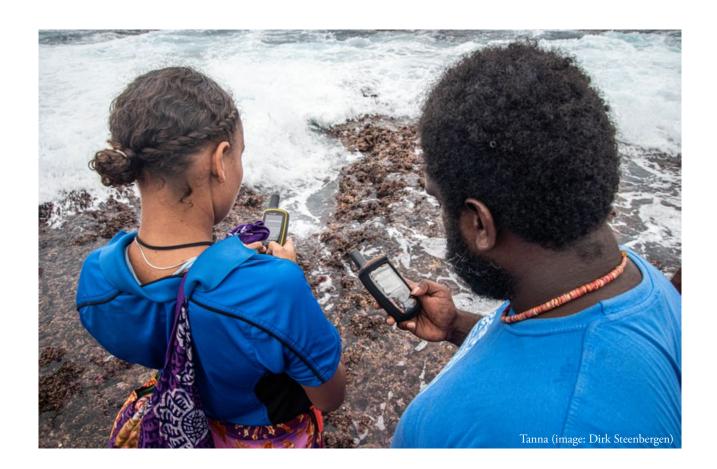
This roadmap will guide improved performance of coastal fisheries in Vanuatu. The underlying objective of this roadmap is to improve current and future management outputs, outcomes and impact toward the national development goals, and to assist in Vanuatu's annual reporting obligations under the Sustainable Development Goals (SDG) and the *New Song Noumea Strategy*.

This roadmap has a lifespan of 11 years (2019–2030) with reviews planned in line with the defined milestones (i.e. after three, six and 11 years of implementation). Throughout the implementation of this roadmap, regular reporting will be integrated into VFD's ongoing reporting system. Monitoring and evaluation procedures will run parallel to implementation, with lessons learned documented and measures of success or failure assessed according to qualitative and quantitative indicators as part of the operationalisation framework.

National Fisheries Management Advisory Council

As defined in the *Fisheries Act*, VFD has a fisheries management advisory council in place. In addition to various office holders serving on the council in an *ex officio* capacity (including the attorney general, commander of maritime police and various departmental directors), the council is made up of nominated representatives from the fishing industry (both offshore and artisanal sectors), non-governmental sector, national agriculture bank, national foreign investment promotion authority and national shipping registry. The council's main function is to provide recommendations to the VFD director on various policy and strategic planning matters.

The Fisheries Act further notes that the "council may establish subcommittees for specific fishing sectors under this Act, and may adopt rules to include objectives, membership, procedures and related matters to give effect to such subcommittees" (Fisheries Act 2014, No. 10 2014, p. 23). This enables the necessary establishment of a senior management subcommittee for coastal fisheries, which may include representatives of relevant government, civil society and private sector stakeholders. This body will be decisive in leading a review on process and progress of the strategy's implementation in years three, six and 11, whereby key accountability structures will enable monitoring of progress and successful completion of milestones.



Action matrix

Planning phases: S - short term 1–3 years
M - medium term up to 6 years L - long term up to 11 years

Green Orange Red

Feasibility:

Strategic plans for external support are needed to ensure VFD has the capacity VFD can execute with current set of resources and capacity
VFD needs further support to execute over time necessary to execute this over the long-term

	Actions		Key Activities	Outcomes	
	GOVERNANCE				
1.1	Foster collaboration among relevant national departments and ministries	1.1.1	Establish MoU/MoA/MoC with relevant ministries and departments to allow cross institutional support in technical areas, project implementation activities and capacity assistance	Strengthened collaboration and streamlining with other coastal fisheries stakeholders, and lasting impact of implementation of specified activities	S
		1.1.2	Develop clear guidelines and protocol for data sharing, that allows for input and output to/from central datasets	Contribution to achievement of NSDP goals related to environment and fisheries Strengthened management and dissemination of national data	S-M
		1.1.3	Establish inter-departmental forums, working groups, fieldwork, workshops, and implementation planning, and collaborate in taking part in national fisheries-related events	Strengthened cooperation and partnership with stakeholders and line agencies	s
1.2	Strengthen collaboration among governance institutions at different scales, particularly with provincial governments, area councils and	1.2.1	Organise training, awareness, and consultations to improve CBFM skills organisational mechanics of authorised officers, fisherman association members, tabu area committee, councils of chief and community	Established and well-functioning fisher associations, authorised officers, and tabu area committee that are well connected to a national decentralised governance structure	S
	community authorities	1.2.2	Develop and roll out a training plan for VFD staff at national, provincial and area levels on the principles of CBFM, project management and reporting, including coastal MCS training (utilising TAILS training): fisheries regulations; fishing techniques; food preservation; and artisanal fish licensing	High capacity within VFD's fisheries administrative bodies (national, provincial and area levels), ensuring effective community support	S-M
1.3		1.3.1	Provide information and awareness to community-level fisheries stakeholders on enforcement of existing and/or new laws (i.e. rules and regulations, sanctions, points of authority)	Strengthened community governance consistent with national fisheries laws and legislation High compliance to laws in communities	S
	nsneries and wnich enable Obriw and EAFM principles	1.3.2	Review Fisheries Act, and laws and regulations relevant to coastal fisheries, to accommodate principles for CBFM and EAFM	Principles for CBFM and EAFM embedded in the foundation of national fisheries policy, and related rules and regulations	s

Develop applicable and achievable control systems for fishing activity	1.4.1	Develop, communicate and implement a web-based coastal fisheries licensing system	Accurate national monitoring and control of fishing activity in coastal zones	M-L
	1.4.2	Develop, communicate and implement a SOP for a community-based MCS system	Accurate national monitoring and control of fishing activity in coastal zones	M-L
	1.4.3	Develop, communicate and implement an effective process for fair prosecution of illegal fishing activity	Clear process and accountabilities of authority in place and widely understood	Σ
			High compliance to laws in communities	
	1.4.4	Develop materials and/or create public forums to increase awareness about CBFM	Fishers in coastal communities are aware of their rights and role in the structure, respect authorities and are well informed of where/to whom to report	S-M
Strengthen community-level fisheries	1.5.1	Appoint authorised officers in communities	Improved local enforcement	S-M
resource governance	1.5.2	Provide training in community-administered sanctioning, enforcement and reporting	Improved local implementation of policy and compliance	Σ
	1.5.3	Implement standard community governing bodies for coastal fisheries (e.g. fisher association) and integrate into the national fisheries governing structure	Strengthened local organisations that are integrated into the national structure	S-M
Enable VFD to implement coastal fisheries strategy activities, with particular	1.6.1	Coordinate and integrate bilateral projects into central, annual VFD work plans and the VFD business plan	Effective implementation of strategy activities, with clear allocation of responsibilities	S
reterence to developing a SOP tor ade- quate disaster relief response			Coherence and coordination across VFD's bilateral projects, whereby projects meet expectations of VFD (and NSDP)	
	1.6.2	Build capacity among VFD staff for fundraising and secure funding to continue support for coastal fisheries strategy activities, to ensure ongoing innovation of new activities	Well-resourced programmes allowing for long-term support	M-L
	1.6.3	Implement a mechanism for continuity between subsequent projects over time, ensuring consistent growth of sector and self-sufficient interventions	Coherence and coordination across VFD's bilateral projects for consistent long-term growth in the sector	M-L
	1.6.4	Develop response plan for fisheries-based relief support to areas under a state of emergency	Mechanisms and processes in place to respond quickly and adequately with support to unpredictable natural disaster events	S-M

	INFORMATION & KNOWLEDGE				
2.1	Develop a strategy for better communication between VFD and stakeholders, and with civil society	2.1.1	Use relevant media or outlets to disseminate information to all relevant stakeholders and receive information from community stakeholders (e.g. Facebook, radio, newspaper, newsflash, quarterly reports and annual reports)	Increased information exchange between fisheries support beneficiaries, stakeholders and VFD	S-M
		2.1.2	Develop VFD website, and ensure access to the coastal fisheries database	Information access to relevant civil society groups and access of information/data to other government departmental agencies	S
2.2	or and evaluate the state s (both centrally and oups to enable decen-	2.2.1	Develop and implement procedures for stock assessments, surveys, data management, e-reporting, monitoring and evaluation of current policy in coastal fisheries status	Strengthened monitoring and evaluation of existing policies and improved understanding of the status of resource stocks	S-M
	tralised coverage)	2.2.2	Develop and implement procedures for regular climate change monitoring and environmental impact assessment (EIA) protocols	Accurate and current information on climate change induced shifts, and effective service provision for EIAs	S-M
2.3	Develop innovative modes of stakeholder er engagement and awareness-raising campaigns to promote CBFM	2.3.1	Develop a central database and data-sharing platform, as well as information dissemination material (e.g. flyers, posters, social media, DvD), and organise targeted workshops and trainings	Strengthened interactive communication and reporting between stakeholders and VFD	s
2.4	Conduct research to inform and improve practice, and increase understanding of the importance of fish to livelihoods, nutrition and health	2.4.1	Raise fisheries profile at an educational level to create opportunities for research and data collection purposes, on specific fisheries disciplines	Increased knowledge of fish with respect to livelihoods, nutrition and health	S
2.5	Integrate scientific knowledge with existing traditional knowledge	2.5.1	Support research activities to review and improve ecological understanding (stock assessments, lifecycle, migration patterns and climate change issues), management plan development, and data collection of both scientific and traditional knowledge	Improved practices and understanding of ecological processes and management responses through application of both science-derived and traditional knowledge	S
2.6	edge and skills of nal, provincial and ele to execute VFD	2.6.1	Provide training and selective recruitment for national, provincial and area level staff with respect to CBFM principles, management leadership and reporting	Strengthened in-house capacity of VFD staff in implementing the coastal fisheries strategy	M-L
	strategic priorities	2.6.2	Provide technical training on fisheries management, MCS, sustainable livelihood development, data collection/analysis and the e-reporting system	Strengthened in-house management and leadership capacity	M-L
		2.6.3	Expose staff to international conferences and presentations	Improved network building, staff exposure and communication skills	M-L
		2.6.4	Promote further education for senior national staff in academic research, grant writing, and leadership through enrolment in relevant MSc and PhD programmes (to build capacity within VFD and minimise dependence on foreign expertise) and for junior national/provincial staff through provision of scholarships and internships at MSc and BSc level	Greater in-house, academic capacity in research, networking, leadership and fundraising	M-L

	ECOSYSTEM MANAGEMENT				
3.1	Align fisheries management (planning, design, implementation and evaluation) practices to holistic CBFM and EAFM	3.1.1	Develop relevant fisheries guidelines, SOPs and protocols for stock/habitat assessments, with explicit methodology for implementation	Coordinated, standardised and sound fisheries management	s
	principles, which are informed by sound fisheries science and methodology	3.1.2	Define and implement context appropriate EAFM and CBFM principles for Vanuatu, and apply them to participatory approaches for planning, design, implementation and evaluation	Clear and feasible national implementation strategy implemented in line with EAFM and CBFM principles	s
3.2	Improve coastal fisheries stocks and habitats	3.2.1	Develop and implement appropriate fisheries management interventions based on data from stock assessments, surveys and reporting	Effective and sustainable fisheries management	s
		3.2.2	Develop, implement and monitor effective (community-based) management of tabu areas (in collaboration with the Department of Environment)	Strengthened marine resource management in coastal areas	S-M
		3.2.3	Support interventions led by the Department of Environment around marine pollution	Healthy, robust ecosystems with minimal contamination of resource stock and habitats	s
3.3	Secure formal rights of access and management over customary tenure	3.3.1	Recognise, empower and clarify local tenure, and resolve tenure conflict (in collaboration with the Department of Environment)	Clear land ownership, tenure, and resource access arrangements	Σ
		3.3.2	Support development of CBFM plans by and for communities	Robust ground-level management capacity	S-M
3.4		3.4.1	Involve community members (beyond formal authorised officers) in fisheries training management	Responsible and better informed fishers who have a strong sense of ownership over interventions	M-L
	VFD) to manage fisheries resources	3.4.2	Develop database or registry of community requests for support	Community needs are better addressed, and marginalised (remote) communities receive appropriate support	Σ
		3.4.3	Ensure enhanced livelihoods activities are sustainable and fulfil multiple needs (e.g. aquaculture contributes to food security and tourism development)	Targeted interventions result in a more substantial, broader impact	M-L

	MARKETS				
4.1	I Improve fish quality, availability and affordability in markets	4.1.1	Conduct analysis of fish production, and implement a strategy for improved consistency in fish production	Stable fish availability	v
		4.1.2	Improve market transparency through widespread information sharing (e.g. price production; marketing)	Equitable distribution of benefits from fish trade along the supply chains	s
		4.1.3	Develop materials and training to improve post-harvest fish handling, storage (and preservation) and transportation	Delivery of high-quality fish to rural and urban consumers	S-M
4.2	Improve access to markets – between producers and consumers (in rural and urban areas, namely Luganville and Port	4.2.1	Conduct research on distribution, fish market networks and assist to facilitate fish distribution channels in rural and rural-urban market systems	Improved market and distribution function of fish in rural and urban areas	M-L
	Vila)	4.2.2	Shorten chains and improve fish affordability (and price stability) by promoting direct fish distribution into rural areas from landing sites, by installing cold storage, cold chain infrastructure and fish preservation facilities	Improved delivery of fresh uncontaminated fish to consumers. Cheaper fish and better access to fish in inland rural areas	M-L
		4.2.3	Assist to put in place management structures (e.g. cooperatives, fisher association) for capacity building and empowerment around local engagement in fish trade	Local equitable benefits derived from fish trade	M-L
		4.2.4	Conduct training on fish production, post-harvest handling and value adding (appropriate to target market, e.g. tourism)	Diversification of products and increased income from fish-based trade	s
	HEALTH & NUTRITION				
5.1	Promote consumption of fresh nutritious fish as part of a well-balanced diet	5.1.1	Conduct participatory research and situation analyses on fish-based nutrition, value of fish to human health and quality of fish consumption, and have this information disseminated to guide a subsequent nutrition-based intervention	Nutrition intake improved through a higher fish-based diet, and the reduced prevalence of NCDs	_
		5.1.2	Develop and implement community-level training on post-harvest hygienic handling and storage of fish and optimal utilisation of fish-based products	Optimal use of fish-based products in communities with minimal waste	M-L
5.2	Focus on improving diets among specific social groups (e.g. women and children)	5.2.1	Carry out information campaigns to increase awareness of the importance of fish-based nutrition and sanitary requirements for early human development	Healthier fish-dependent communities	M-L
5.3	3 Regulate food safety standards at fish markets	5.3.1	Develop and implement seafood standards and requirements for coastal and domestic fisheries	Higher quality fish intake and reduced prevalence of NCDs	S-M
		5.3.2	Monitor seafood requirements and food safety (e.g. inspection and certification)	Ongoing national monitoring structure for early risk identification, prevention and response	M-L

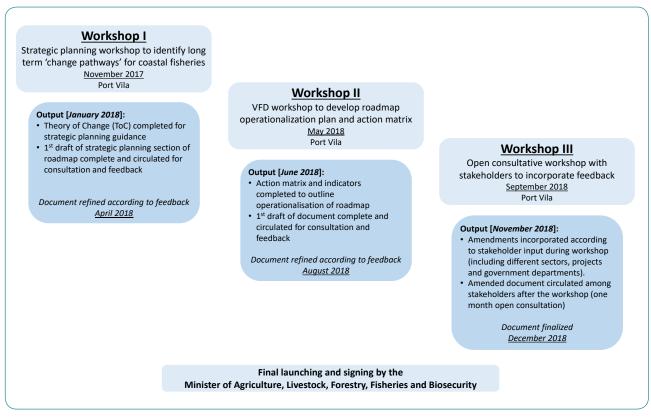
	LIVELIHOODS & WELL-BEING				
6.1	Improve fish production and fish-based (wild capture) livelihoods and innovate	6.1.1	Conduct a study on the well-being of fishers and fishing communities, and develop and implement appropriate measures	Well-informed, well-being improvement measures and support to fishers by VFD	Σ
	new sustainable income activities (as appropriate to changing contexts, in-	6.1.2	Continue support in deployment and maintenance of FADs, and Increased capacity for fish capture in communities improve access to, and utility of, them	Increased capacity for fish capture in communities	S
	locally in response to climate change)	6.1.3	Guide development of community-based ecotourism activities (e.g. recreational fishing; snorkelling; tours)	Increased income from diverse activities in communities for improved self-sufficiency	S-M
		6.1.4	Develop and implement community-level skills training to enhance livelihoods (e.g. training on installation and maintenance of solar freezers, shell crafting and entrepreneurial management)	Increased income from diverse activities in communities for improved self-sufficiency	S
6.2	Promote innovation and development of appropriate aquaculture production in rural areas to support livelihoods and nutrition	6.2.1	Integrate activities from aquaculture and mariculture divisions to implement technology, skills and infrastructure into rural context for improved income	Increased income from diverse activities in communities for improved self-sufficiency	S-M
6.3	Promote inclusion of women and other social groups in CBFM and benefit sharing	6.3.1	Develop fisheries village profiles of active fishing communities receiving VFD support, including gendered livelihoods information beyond fisheries, and include village profiles in the registry of community requests	Accurate knowledge of local community conditions allowing for appropriate response measures and/or support	Σ
		6.3.2	Implement activities in ways that ensure equitable participation and explicitly mitigate social (gender) marginalisation	Equitable benefit distribution and widespread improved well-being from fisheries livelihoods support	S-M

Annex

Consultation process

The development of the *Vanuatu National Roadmap for Coastal Fisheries: 2019–2030* has been subject to indepth consultation with stakeholders in Vanuatu. The consultative process was guided by expert facilitative support from both within VFD and through partnerships with SPC and the University of Wollongong. VFD staff engaged in a three-stage process that included external stakeholders at various phases, as depicted in the figure below. Groundwork for development of the document was completed in the first two workshops. The third workshop functioned as consultations with all relevant stakeholders in Vanuatu, including representatives from governmental and non-governmental organisations.

Following the final workshop, the document was amended according to input at the workshop and then circulated again for input. Stakeholders were given a month to suggest additional changes. Following this, the document was amended and then finalised in preparation for presentation before the Minister of Agriculture, Livestock, Forestry, Fisheries and Biosecurity.



Phases of development and consultation for Vanuatu National Roadmap for Coastal Fisheries: 2019–2030.

















