



Ministry of Fisheries and Marine  
Resources Development  
Government of Kiribati

# Kiribati National Fisheries Policy 2013–2025



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# Foreword

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Kiribati is a nation of ocean stretching over an area of more than 3.5 million km<sup>2</sup> across the central Pacific Ocean, forming one of the biggest Exclusive Economic Zones, and encompassing some of the world's most diverse and productive ecosystems.

Kiribati is acknowledged as having the largest coral atoll, known as Kiritimati Island, and for being a world-class destination for recreational fishing. Kiribati is also known for the Phoenix Islands Protected Area (PIPA), declared in 2010 as the largest marine protected area in the world. It is one of Kiribati's great gifts to the world and has contributed immensely toward the promotion of marine biodiversity conservation and protection initiatives.

As a nation of seafarers and fishermen, we are proud of our culture, traditional skills and knowledge of the sea. Our fisheries resources are our means of survival shared equally by all I-Kiribati. Our future depends upon our good management and custodianship of our fisheries.

To this end, the development of the Kiribati National Fisheries Policy (KNFP) aims to portray short to medium and long-term strategic objectives that will enhance responsible fisheries with emphasis on the need to support, improve and sustain the people's livelihood, food security and economic growth today and for future generations.

I would like to commend the Government of Australia for its timely and endless support in terms of financial and technical assistance, which has made it possible for the Ministry of

Fisheries and Marine Resources Development (MFMRD) to complete this policy document successfully. It is an important road map to achieving both the development and management aspirations of Kiribati for sustainable fisheries in the long term.

It is also a pleasure to acknowledge the valuable contribution of Kiribati key donor and fishing partners, who have shared their views and contributed significantly to this policy, and who have recognised the priorities and strategic actions vital to achieving the successful implementation of the policy. It is, therefore, important to secure donor funding and develop specific implementation plans to undertake clear and effective strategic actions to achieving their targeted outcomes.

I dedicate this National Fisheries Policy to the people of Kiribati and pledge to ensure that the Ministry of Fisheries and Marine Resources Development will work earnestly and diligently for a healthy marine environment and sustainable fisheries through a more coordinated and collaborative approach in partnership with key government sectors, the private sector, NGOs and local communities.

“Te Mauri”, “Te Raoi”, ao “Te Tabomoa”

**Honourable Tinian Reiher**

Minister of Fisheries and Marine Resources Development

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# 1. Introduction

Kiribati consists of 33 atolls and reef islands (except Banaba Island, a raised limestone island) that form three main groups: the Gilbert, Line, and Phoenix groups. Kiribati spreads over an area exceeding 3.5 million km<sup>2</sup> of ocean across the equator and the International Dateline, forming one of the biggest exclusive economic zones (EEZ) in the world (shaded white in Figure 1).

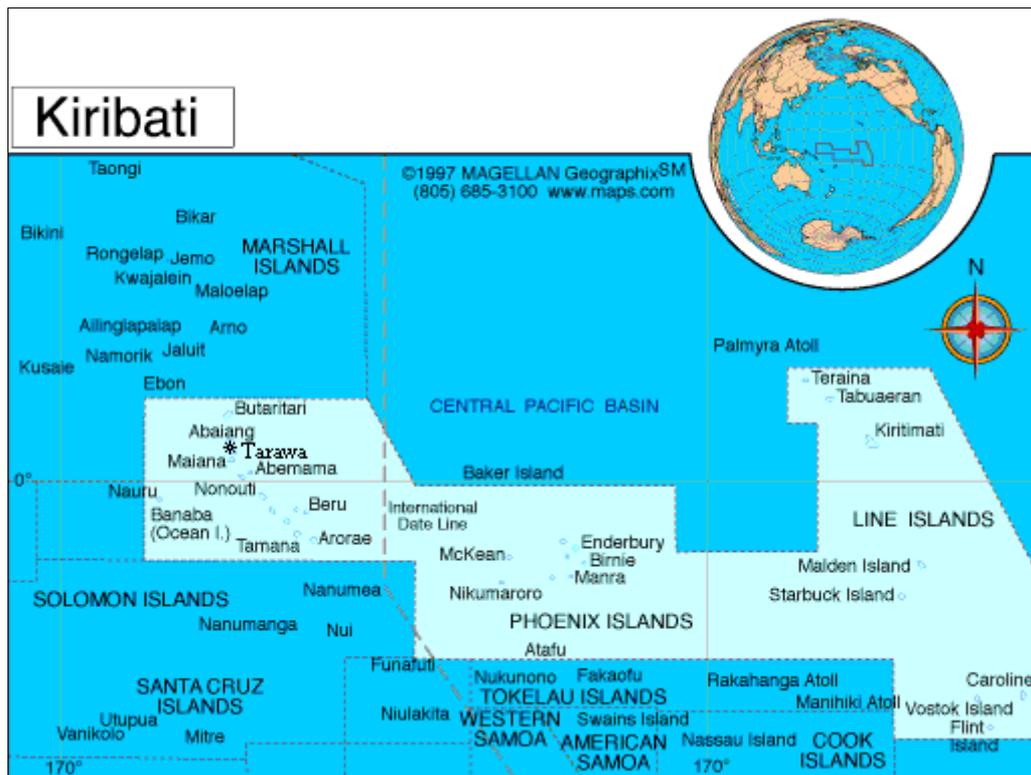


Figure 1: Map of Kiribati

Kiribati has a total land area of about 811 km<sup>2</sup>. Most of the islands are located in the dry belt of the equatorial oceanic climate zone, an area of frequent prolonged droughts. The quality of the soil is considered to be one of the poorest in the world due to its alkaline coral composition and high porosity. Atolls are typically low-lying islands where there is no surface water. The only water supply is ground water, which is replenished by rainfall percolating through the porous surface soil. Agriculture activity is therefore considered poor.

In addition, the biodiversity is prone to over-exploitation on land due to the scarcity of land space. “The flora of Kiribati is ecologically critical, being limited to a coral’s typical coastal strand and communities of shrubs, mangroves, marsh vegetation with remnant of inland forest” (MESD, 1999).

Unlike the terrestrial fauna, however, the marine fauna is considered to be highly diverse, rich and productive. In 2006, Kiribati became the world leader in marine conservation after declaring Phoenix Islands the largest marine protected area in the world.

Fishery resources are essential to Kiribati for revenue, food security, employment and income. The combined value of all Kiribati lagoon, coastal and oceanic fisheries is estimated to exceed AU \$110 million per annum. Given their significance, it is fundamentally important that these resources are managed well and sustained for present and future generations.

However, the management and development of these resources is increasingly being challenged by a combination of domestic and external factors. While lagoon and coastal fisheries currently provide sufficient protein for most I-Kiribati, there is a real challenge to long-term food security from population pressures, the problem of overfishing, if it is not managed and controlled at a sustainable level, the impacts of climate change and increases in global food prices.

The challenge has also been exacerbated by regional and global developments, especially in tuna fisheries as PNA (Parties to the Nauru Agreement) countries are moving to domesticate their own fishing and processing industry. In addition there is a growing challenge to the traditional processing plants in Asia from the Latin Americans, and a shift to the lucrative markets in Europe. These changes highlight the need for Kiribati to implement rigid and complex management measures and to participate effectively in treaties and related fisheries arrangements to maximise economic returns, as well as to ensure the sustainable use and conservation of tuna resources.

In order to meet and re-adapt to this changing environment, it is necessary for Kiribati to have a clear vision with a calculated policy for managing and developing its fisheries. It is important for Kiribati, as a coastal state, to be able to respond to the current and future challenges of the global tuna fishery, and at the same time, establish a firm but vibrant regime that will embrace and support the different stages and requirements of its expanding commercial (large scale), artisanal (small scale) and subsistence fisheries.

In April 2012, Cabinet endorsed a proposal by the Ministry of Fisheries and Marine Resource Development (MFMRD) to develop a Kiribati National Fisheries Policy that would include a realistic set of short-term priorities that will lead Kiribati towards achieving the policy vision for 12 years. This was then developed by MFMRD in a whole-of-government consultative process that actively sought out the views of all government ministries, stakeholders and I-Kiribati communities on South Tarawa including outer islands.



## 2. Summary of issues

### 2.1 Population and food security

Kiribati is experiencing an acute rise in environmental and socio-economic problems caused by over-population, while lacking a sufficient population with the necessary qualification base to readily support the development of high-level skills in government and industry.



The population of Kiribati is recorded at 103,500 (Kiribati Census, 2010). This figure shows that Kiribati has a very high rate of population growth that could have a very serious impact on its capacity to provide for its people if nothing is done to push it down to a nominal or acceptable level. However, there has been some improvement with a drop in the fertility rate, but it is still considered high by regional comparison and has been forecast to drive the population to 130,000 by 2025.

Although the lagoon and coastal fisheries generally provide sufficient food (and protein) to the people, the impact of over-population and high dependency on imported food (i.e. rice, flour and tinned meat and fish) are beginning to take their toll, especially as the prices of these goods are rising.

Almost half of I-Kiribati are concentrated in the two urban centres: South Tarawa (44%) and Kiritimati (6%). Overpopulation on South Tarawa has been and still is a growing concern as the population density is now reaching a level of 3184 people/km<sup>2</sup> (2010 census), which is about 22 times the national average of 142/km<sup>2</sup>. The high population of South Tarawa, particularly on Betio, has created significant socio-economic and environmental problems (water and sanitation, scarcity of land space, lagoon pollution, rubbish, etc.) and is a key driver of over-fishing in the Tarawa lagoon.

Perhaps the most significant medium to long-term population concern is the challenge of ensuring food security for the highly concentrated population on South Tarawa while also taking measures that are conducive to the sustainability of lagoon fisheries in Tarawa or elsewhere in Kiribati. About 60 to 70% of coastal fisheries production in Kiribati is for subsistence purposes (livelihood), with the remainder comprising artisanal and small-scale commercial fisheries.

The artisanal tuna catch is high in Kiribati. The artisanal tuna fishery uses small, open, outboard boats under 7 meters in length to target the supply of fresh tuna to town areas, particularly around South Tarawa where the high population density provides a strong market. In 2008, a survey of the artisanal catch was recorded at around 8,238 t skipjack and 4,328 t yellowfin. However, given current population trends, the catch level of the artisanal fishery (with its limited

number of vessels) will not be able to sustain the existing level of tuna consumption per capita, at least not without necessary support and new undertakings to expand the scope of this fishery in size and use of fishing technology

A 2009 SPC (Secretariat of the Pacific Community) study on food security found that overpopulation in urban centres such as South Tarawa is threatening the sustainability of the immediate adjacent coastal fisheries. This pressure could also impact on distant rural communities that have been motivated to increase their commercial fishing activities to supply urban markets as well. As more and more fishermen in the outer islands take interest and intensify their fishing to supply the markets in South Tarawa, there is the danger of and the risk of targeting small/juvenile fish which in turn will affect the replenishing cycle of stock.

Nevertheless, it is forecast that Kiribati coastal fisheries could support the food security needs of all communities throughout the country, but there is a need to address significant distribution and management challenges to avoid shortfalls in urban centres such as South Tarawa.

## 2.2 Access revenue, employment and development

Kiribati has limited natural endowment apart from its vast and abundant fish and marine resources within its EEZ. The small land area and limited agricultural opportunities (due to poor soil conditions and scarce fresh water) mean that I-Kiribati depend upon their sea (marine resources) for food security, livelihoods and revenue.

Kiribati lagoons and rich oceanic waters are home to numerous artisanal and small-scale commercial fisheries, aquaculture operations, commercial joint ventures, and foreign distant-water fishing fleets, which fish in Kiribati's EEZ and primarily land their catch in foreign ports at markets highly competitive in price.

Production from coastal subsistence fisheries in Kiribati is estimated at 13,700 t, valued at approximately AU \$34 million. The commercial component has expanded in recent years with the diversification of the fisheries sector to the outer islands and the establishment of fisheries and ice plants on all islands outside South Tarawa. With this new development, there has been an increase in fish production in outer islands resulting in an increase in inter-island trade in coastal finfish and other species. The government has assisted by subsidising freight costs through its freight levy fund.



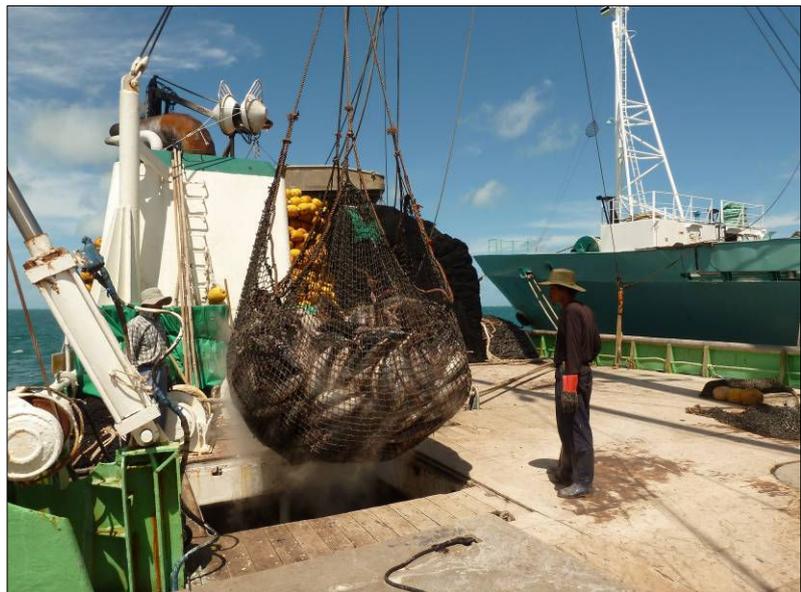
A key challenge to the expansion of small-scale commercial fisheries is the lack of commercially viable and efficient means of transporting fish from outer islands to the strong markets in South Tarawa.

Export in Kiribati fisheries has generated some revenue but has also caused significant conservation concerns due to over-exploitation. There are apparent limited legal frameworks and absorptive management capacity (together with the necessary supporting mechanisms) to manage and control the fishing.

Market demand in SE Asia has driven high levels of fishing and export of beche-de-mer and shark fin, although shark fin has declined recently as interest in Asia has dropped significantly. This has caused significant concern on the resource sustainability with beche-de-mer clearly showing fatigue caused by overfishing. Although these fisheries present significant economic opportunities for local fishermen, there is pressing need for the fisheries administration to develop effective management regimes to ensure their long-term sustainability.

Kiribati's large EEZ supports lucrative fishing activities, with foreign vessels fishing under bilateral access agreements, except for US vessels, which fish under the Multilateral Treaty. Annual catches average approximately 160,000 mt per year but are strongly influenced by ENSO events, with very high catches in El Nino years.

The purse-seine fishery is the cornerstone of the Kiribati tuna fisheries providing over 60% of government revenue. Purse-seine vessels tend to concentrate their activities mostly in the Gilbert and Phoenix groups. Kiribati also licensed a significant number of foreign longline fleets that primarily catch bigeye, yellowfin, albacore and tuna related species. Longline catches occur mostly in the Line Islands.



The oceanic tuna fisheries are very important to Kiribati as a source of revenue, food security, employment and income. While tuna is the primary revenue earner for the Government of Kiribati, providing 60% of government revenue it is believed that access fee returns have not kept up with the increased value of the WCPO fisheries, particularly skipjack. Kiribati access fee revenue peaked in 2001 at approximately AU \$46 million and dropped to AU \$25 million in 2005 and 2006. Tuna revenue then gradually climbed to approximately AU \$30 million in the succeeding years from 2007 to 2009, peaking again in 2010 at approximately AU \$41.7 million. However, during this period, the value of fish caught in Kiribati waters climbed by 130%. In 2011, revenue dropped again markedly to AU \$26.9 million, but this was due largely to the bad fishing season associated with the strong *La Nina* phenomenon when oceanographic conditions

moved the tuna schools (stock) to the Western Pacific – a gain for countries to the west and a loss for central and eastern parts such as Kiribati.

The good fishing in Kiribati waters brings with it transshipment and bunkering activities, which are also important providers of much needed revenue (in addition to access fees) for the government through the issue of licences and related charges. With 100 per cent observer coverage, Kiribati is also charging fishing operators a fee for the deployment of national observers on all purse-seine, bunker and carrier vessels operating in the Kiribati EEZ.

Transshipment for the purse-seine fishery is only allowed at the designated ports of Tarawa, Butaritari and Kiritimati. This also includes some longlines that have normally used Kiritimati Island given its accessibility/proximity to the fishing grounds in the eastern Pacific. Most of the longline vessels are allowed to tranship at sea within the Kiribati EEZ and in the adjacent high seas when an observer is present onboard either the longline vessel or reefer carrier.

Recent transshipment data are not available at the time this policy paper was finished, however, in 2010, a total of 68 foreign vessels and two Kiribati registered vessels transhipped approximately 94,168 mt of tuna to reefer carriers in Kiribati's ports or waters (98% of this was purse-seine transshipments in port). Vessels from eight flag states transhipped in Kiribati, with the Korean purse-seine fleet accounting for over two-thirds of all transshipments.

The new fresh tuna loin processing plant in Betio, with more than 20 longline fishing vessels, provides further employment and cash opportunities for the local people. The processing plant will also open new opportunities for local businesses on South Tarawa through supporting facilities and services for maintenance, slipping, etc. that may be required in future. In addition, fuel bunkering is another service that could bring in additional revenue

Kiribati is a member of several regional and international organisations, notably the Forum Fisheries Agency, the Secretariat of the Pacific Community, the Parties to the Nauru Agreement, and the Western Central Pacific Fisheries Commission. Kiribati also participates at meetings of the Inter-American Tropical Tuna Commission which manages and controls the tuna fisheries in the eastern Pacific. Kiribati has received benefits from its membership.

In order to develop and increase the value of its oceanic tuna fisheries through technical and development assistance, Kiribati is one of the Parties to the Nauru Agreement. The PNA control the most productive waters for tuna and include Tuvalu, Kiribati, Nauru, PNG, Solomon Islands, Federated States of Micronesia, Palau and the Marshall Islands. The PNA have recently made strong progress to improve benefits through their implementation of the innovative Vessel Day Scheme (VDS), their development of a cooperative marketing brand and global eco-labelling certification for their skipjack fisheries, and various other subregional conservation measures. Access fees have risen strongly since the introduction of the VDS, with significant increases in the fees now being charged by Kiribati. Kiribati has amended its bilateral access arrangements in order to implement the PNA VDS. By the end of 2012, Kiribati obtained US \$60 million, which is approximately AU \$57 million. This increase was largely due to the application of the VDS to purse seiners operating in Kiribati waters.

The oceanic tuna fisheries also provide several livelihood benefits for I-Kiribati. As noted above, Kiribati artisanal and subsistence fishermen catch significant amounts of oceanic tuna for local markets and immediate consumption. There are also strong employment opportunities for I-Kiribati in maritime and fishery positions. Access agreements currently dictate I-Kiribati crewing

requirements and I-Kiribati have developed a strong regional reputation and crew numbers, particularly amongst Japanese fleets. It is estimated that approximately 325 I-Kiribati crew on Japanese fishing vessels and between 100 and 200 on Korean, Taiwanese and Chinese fleets. In addition, I-Kiribati are developing expertise and reputations as merchant seamen and crew members on cruise liners. These maritime positions are now providing significant national income for Kiribati through remittances. Maritime training for I-Kiribati is a key development field.

Kiribati has abundant, relatively low cost, skilled and semi-skilled labour available potentially appealing to foreign interests who may wish to invest directly and/or through joint ventures. In 2012, the Government of Kiribati entered into a joint venture with Golden Ocean for the development of onshore processing and commercial activities, supplied by longline fishing activities in the Kiribati EEZ. This has successfully resulted in the construction of a processing plant in Betio.

However, the cost of doing business is high and fisheries development in Kiribati is undermined by insufficient or degraded infrastructure. Kiribati continues to suffer from limited shore facilities and ongoing problems with freight, water, power and limited availability of land for onshore development. Development of infrastructure was identified as a key concern for Island Councils and small-scale fishermen. Given population pressures on Tarawa, any infrastructure development will require careful planning and consideration of environmental and socio-economic impacts.



In recent years, Kiribati has increased the size of its registered fleet. Although registered in Kiribati, these vessels continue to operate largely out of foreign ports. Due to this increase in vessels, Kiribati's reported flag state catch of tuna has grown five-fold over its historical average and was estimated at 25,000 mt in 2010. In the absence of the necessary data, it has been difficult to establish where the Kiribati tuna catch is ultimately landed, but it would be fair to assume that most the skipjack catch was landed in Thailand, Latin America and American Samoa, with yellowfin and bigeye landed in Japan. The only catch landed in Kiribati are under-size and reject fish (damaged and by catch).

In addition, aquaculture offers a potential opportunity for further development in Kiribati, although it is likely that export-oriented aquaculture will face strong competition from countries with low production costs and efficient transportation links to major markets. There are currently aquaculture operations in milkfish, pearls, seaweeds and seeding clams. While Kiribati has developed substantial knowledge and infrastructure in this area, it lacks clear strategies for development, business plans and some operational skills.

### 2.3. Licensing and compliance

Full compliance by licensed fishing vessels is critically important to Kiribati, particularly accurate reporting of fishing activities and catches. Unfortunately, the history of DWFN (distant water fishing nations) vessel compliance with reporting obligations has generally been poor in the past with high levels of misreporting. But this was mainly before new monitoring, control and surveillance (MCS) measures were put in place and after the findings of the 2009 FFA MCS strategy study – ‘Safeguarding the Stocks’, which identified underreporting and misreporting of catch by licensed vessels as a key compliance concern.

Misreporting is a form of fraud and is regarded as a serious crime against the state. It is an act of stealing no different from tax evasion commonly used by fishing operators to deny the state rightful ownership and jurisdiction. Misreporting also undermines Kiribati’s ability to assess the value and status of its fisheries. Even if the fees are paid on a lump sum arrangement or per day (VDS), each member state reserves its right to charge whatever it considers appropriate, having considered a number of factors that influence fishing and market performance. In most cases if not all, the fees are calculated on vessels’ fishing efforts and the prevailing market price (plus other factors). Therefore, any assessment may be made on the inaccurate data provided. Misreporting has an adverse impact on decisions. Accurate reporting of catches is also very important for scientific purposes, that is, for calculation and assessment of tuna stocks, especially with regard to bigeye and yellowfin tuna.

While Kiribati has a strong record in prosecuting blatant illegal fishing, there is still the need to strengthen existing fisheries laws and related legal frameworks, including management measures/procedures to identify misreporting and prosecute accordingly. Kiribati has not prosecuted a vessel for observer-reported violations since the mid-1990s and has no consistent process for collecting, analysing or recording observer violation reports, nor for reviewing previous violation reports when issuing licenses.



## 2.4 Governance and institutions

As the leading and responsible agency for fisheries, the Ministry of Fisheries and Marine Resource Development (MFMRD) is experiencing institutional capacity weaknesses due to staff turnover. As presently the case, there are a number of vacancies in senior executive positions as well as ongoing systemic problems in areas such as: economic, financial analysis and reporting. There is also lack of technical advice needed to ensure informed decisions at high level.

The Government of Kiribati is in the process of addressing these institutional weaknesses (this policy is part of the process) and has a number of very strong mid-level staff. In 2009 and 2010, MFMRD worked with the AusAID Performance Incentives Initiative to review its licensing arrangements for offshore fisheries and developed new guidelines for licensing and access arrangements. MFMRD is now working towards implementing these guidelines but needs further support to establish the new procedures and train staff.

In 2010, the Kiribati parliament passed a new Fisheries Act. However, coastal fisheries within three nautical miles are managed by Island Councils through the Local Government Act. This Act requires review and substantial updating of its provisions relating to fisheries. Island Councils have some understanding of fisheries issues, but because they are faced with strong financial constraints they have focused more attention on licensing and revenue collection.

In most cases, Island Councils tend to give more consideration to the development of infrastructure and related facilities (i.e. lights, wharves, etc.), and do not generally discuss fisheries management and stock sustainability concerns. Because of this situation, most fishing activities are not formally regulated so as to ensure proper management and control. However, there has been some development in the drafting of bonefish and sea cucumber legislation, which is nearing completion.

Many of the existing and ongoing projects within the fisheries sector have been in operation for over a decade, with little or no review of their significance or priority, or consideration of the changing industry and development circumstances around their operation. For example, although MFMRD has skilled and experienced staff in aquaculture operations, there is a significant gap in policy and strategic planning with the result that the aquaculture programme is not supporting local development as effectively as it might otherwise.

The Government of Kiribati is attempting to address these institutional weaknesses and this policy will provide the overarching umbrella on future institutional strengthening. In June 2011, MFMRD initiated a collaborative project with FFA, SPC and AusAID to undertake an institutional strengthening review. This built on an earlier 2008 scoping study, developed in cooperation with FFA. Towards the end of the review, MFMRD identified that it needed a strong policy framework to guide its work, thereby beginning the process of developing the Kiribati National Fisheries Policy. The findings of the review were then incorporated into the development of this policy.

Both the 2011 institutional strengthening review, and the original 2008 scoping study, found that there is a strong commitment within the Government of Kiribati and MFMRD to institutional strengthening and capacity development. MFMRD staff have put aside considerable time and have actively supported these projects.

However, in practice, the limited capacity of MFMRD and high staff turnover has prevented the development or implementation of any significant institutional strengthening programme. High

staff turnover and the overwhelming travel demands associated with international tuna fisheries constantly draw down senior MFMRD staff and leave little time for day-to-day management, let alone strategic analysis, long-term planning and institutional strengthening. This results in a constant day-to-day struggle for senior staff with little opportunity to champion or lead the growth or development of MFMRD as an effective institution.

In this context, it is important that MFMRD and its regional partners establish a mechanism to develop, coordinate, implement and maintain institutional strengthening within MFMRD, and ensure that institutional strengthening activities do not exceed a level that can be sustained. This mechanism would become the focal point for institutional strengthening and capacity building and would drive implementation and strategic development. Without such a mechanism, it is probable that individual projects will come and go, consultants will visit and leave, and little substantial change will be achieved.

In order to develop, coordinate, implement and maintain institutional strengthening, the policy proposes that MFMRD seek technical assistance to develop and implement a long-term institutional strengthening workplan. To ensure the resilience of institutional strengthening, the policy proposes that institutional strengthening projects should be designed to be as simple as possible, and to reflect local operating and administrative environments.

Noting the significance of fisheries for all I-Kiribati, institutional strengthening and capacity building activities should explicitly consider the impacts of management and development arrangements on men and women and promote equal opportunities for career advancement. MFMRD adheres to equal opportunity policies on employment and women occupy senior positions. It is important that all institutional strengthening activities support internal policies on gender and other social matters and promote increased understanding of men’s and women’s participation and associated needs in the fishery sector at subsistence and commercial levels.



## 2.5 Climate change

Forecasts from recent scientific studies show that climate change is likely to have substantial impacts on Kiribati coastal and oceanic fisheries, their habitats and reefs, and the little land available to I-Kiribati (811 km<sup>2</sup>). Climate change is projected to alter ocean temperatures and currents, with resulting impacts on oceanic marine ecosystems.

In 2008, SPC released a policy brief that summarised the findings of an ongoing study into climate change impacts on Pacific fisheries. The policy brief noted that national plans to optimise benefits from fisheries should be adapted to the likely changes in environmental conditions caused by climate change. Three key challenges for Kiribati are:

- Changes to the distribution and abundance of tuna. Climate change would result in alterations to water temperatures, currents, and marine food chains. This is projected to affect the location and abundance of tuna species. The policy brief suggested that concentrations of skipjack tuna would likely be located further to the east than in the past (with potential benefits for Kiribati).
- Decline in coral reefs and coastal fisheries. Rising sea surface temperatures and more acidic oceans will likely impact on the growth of hard corals (and their complex fish habitats). Degraded coral reefs are likely to support different types of fish and perhaps lower yields. This may be a significant concern for Kiribati as it is likely to result in reduced catches of reef fish, with significant ramifications for food security and fisheries development.
- Damage to infrastructure. More powerful storms are predicted, with increased risks of damage to wharfs and essential infrastructure. This may also create higher financial risks for coastal aquaculture due to more frequent damage to equipment.

## 2.6 Gender and social impacts

Gender and social impacts are key issues for fisheries development and management. Almost all I-Kiribati have some form of involvement in fishing activities, whether it be artisanal, subsistence, boat-based, shore-based, harvesting, reef gleaning, processing or aquaculture. Because of the danger of handling unfriendly species at sea (sharks, swordfish, etc.) and the risk of going adrift when there is sudden change of weather or breakdown, women are not expected to fish at sea.

Traditionally, men have dominated fishing activities at sea while women have been heavily engaged in shore-based harvesting and processing activities. With the commercialisation of the artisanal fishing, especially on South Tarawa, the contribution made by women has increasingly become part of the daily management and running of fish outlets. Today, women are regarded as team players for their major role in the development and support of Kiribati fisheries, especially in the marketing and sale of fish.

But the development of fisheries in Kiribati (as in some other Pacific Island nations) can bring with it unwanted social problems of significant proportion, especially changes in social behaviour (for example, in relation to alcohol and sex). Of particular concern is the transshipment industry in Tarawa and Kiritimati, which has given rise to increased alcoholism and prostitution

in young women, some of whom are between the ages of 15 and 18 years. The periodic reports of social workers, who interviewed young women who often board fishing vessels on transshipment calls (Ainen Matawa and Korekorea), show that the number has increased to a level where it has become a concern to churches and to the government.

The important point at issue is how well and at what level should Kiribati allow changes in its lifestyle, traditional norms and values, as well as Christian beliefs and moral goodness, for the sake of development. This is indeed a challenge that is facing government and one that needs to be addressed in this national strategic plan.



### 3. Development of a Kiribati National Fisheries Policy

This is the first fisheries policy developed by MFMRD to set new directions or a roadmap for effective fisheries management, conservation and development in Kiribati for the next 12 years. It is designed to ensure strategic planning and an integrated fisheries management approach at all levels to achieve sustainable development in a more coordinated and collaborative manner between all stakeholders.

The policy is also designed to harmonise national plans and the activities of government sectors, non-government organisations (NGOs), the private sector, civil society organisations (CSOs) and, of course, local communities to promote sustainable fisheries in Kiribati with the aim of enhancement of food security, creation of employment opportunities and sustainable livelihoods, and economic growth for Kiribati's current and future generations.

The policy has also been developed as a planning tool for MFMRD to mainstream, implement and monitor the national development fisheries' priorities reflected in the Kiribati Development

Plan (KDP). It is therefore framed within the Kiribati Development Plan 2012–2015 and supports its objectives of economic growth and poverty reduction, sustainable development and good governance.

The 12 year vision of the policy reflects fisheries management and development priorities for the next three cycles of the KDP up to year 2025. Strategic actions identified under this policy are prioritised to be implemented through a 4-yearly implementation plan. This will become a concise and clear plan for Kiribati to reduce poverty, enhance food security and maximise economic growth within the implementation timeframe.

The legal basis for the policy is largely provided by *An Act for the Conservation, Management and Development of Kiribati Fisheries and Control of Foreign Fishing and for Connection Purposes (2010)*. The *Local Government Act (1984)* is also significant due to the involvement of Island Councils in the management of coastal fisheries. The *Environment Act 1999* also provides significant provisions to promote resource conservation and protection of marine biodiversity.

The Kiribati National Fisheries Policy was developed through extensive consultations with various communities and stakeholders from the Gilberts to the Line Islands. Between June and November 2012, MFMRD invited workshop participants from government sectors, NGOs, and members of fishing associations to collaborate on the development of the policy’s vision, guiding principles, strategic objectives and actions. More than 10 outer islands including Kiritimati Island have been visited by a consultation team (MFMRD, MISA, MELAD and AusAID) led by MFMRD to carry out the same processes in developing the policy. This policy is very much an outcome of these consultations.

The policy will also be reviewed on a four-yearly basis and will then require that MFMRD leads the development of a new implementation plan for the next four years that builds on the policy’s outcomes and continues to drive progress towards the policy’s objectives. These timescales ensure that the policy is integrated with the Kiribati Development Plan.

A key component of the Kiribati National Fisheries Policy is its institutional strengthening framework (see Appendix 1). This will coordinate and prioritise training, capacity building and institutional strengthening activities to support the implementation of the policy’s Strategic Action Plan. This framework is based on an institutional strengthening review that was conducted in 2011 immediately prior to the development of this policy.



## 4. 12-year vision and guiding principles

Taking into account the paramount importance of fisheries for the economic growth and sustainable livelihood of the people of Kiribati, this policy envisions a **healthy marine environment and sustainable fisheries development that provides food security and revenue for the current and future generations of I-Kiribati.**

Kiribati will pursue this vision guided by the following principles:

MFMRD will develop and strengthen its capacity so that it is **Effective, Resilient and Adaptive** to change.

MFMRD and other ministries as relevant will be **Strong** in their pursuit of Kiribati national interests and in negotiations with foreign partners.

MFMRD will work in a **Collaborative, Integrated and Coordinated** manner with its government partners, stakeholders and Pacific Island neighbours, and will adopt and implement **Sustainable** measures that are **Equitable** for all I-Kiribati and promote **Gender Equality**.

All decisions will be made in an **Accountable and Transparent** manner.



## 5. Goal and strategic objectives

The Government of Kiribati will work towards five strategic objectives.

1. Support **economic growth** and **employment** opportunities through **sustainable** fisheries, aquaculture and marine resources development.
2. Protect and secure **food security** and **sustainable livelihoods** for I-Kiribati.
3. Ensure **long-term conservation** of fisheries and marine ecosystems.
4. Strengthen **good governance** with a particular focus on building the capacity of MFMRD to implement and support fisheries management, development, and monitoring, control and surveillance.
5. Build **climate change resilience** for fisheries and marines resources in Kiribati.



## 6. Strategic actions

In the development of this policy, MFMRD asked workshop participants to undertake a SWOT (strengths, weaknesses, opportunities and threats) analysis of Kiribati fisheries (Appendix 2), and discuss and propose potential activities that might support the policy's vision and strategic objectives. Through this process, and extensive reviews, MFMRD then developed Strategic

Actions that identify priority actions that will lead Kiribati towards the policy's vision. The workshop consultations played a crucial role in this process and assisted MFMRD with prioritising a 'wish list' down to a list of achievable objectives.

Given the development context of Kiribati and its fundamental dependence on coastal and oceanic fisheries, it is critical that Kiribati strengthens the **governance** of its fisheries management and development so that it can build the **sustainability** and **climate resilience** of its marine resources while balancing the enhancement of **food security** for I-Kiribati, with maximisation of the **economic growth** and **employment** derived from these resources.

The sustainability of Kiribati's marine resources is critical to its long-term future. The future of Kiribati's subsistence and market economies is directly tied to the health of its coastal and oceanic ecosystems and the long-term sustainability of these fisheries.

The vast majority of I-Kiribati depend on subsistence and artisanal fisheries for daily nutrition. **Enhancing Food Security** in this context of increasing pressures is therefore critical to the well-being and future of I-Kiribati. Given existing overfishing pressures in South Tarawa, Kiritimati and elsewhere, it is not enough to simply maintain existing subsistence and artisanal fishing arrangements. Further enhancements and changes will be required to meet future demands. This is why the Kiribati National Fisheries Policy prioritises Strategic Actions that **Enhance Food Security**.

Kiribati has few options for economic growth apart from its marine resources. Kiribati has already achieved considerable growth in revenue from distant water fishing fleets in recent years and aspires to further maximise this growth through its participation in the PNA VDS, and through increasing engagement in its oceanic tuna fisheries. Examples of these aspirations can be seen in the recent implementation of the VDS in some renewed access agreements, and support for joint ventures with Japan and Chinese/Fijian interests. While there are aspirations to also develop economic growth in coastal fisheries, these are tempered by concerns about protecting and enhancing food security. Given the scarcity of alternative options, the Fisheries Policy includes a number of Strategic Actions that **Maximise Economic Growth and Employment** through fisheries development – in a manner that does not conflict with sustainability or food security.

The Strategic Actions below detail comprehensive actions for the next 12 years, beginning with short-term priority actions for implementation in the first four years. Medium to long-term priorities are then identified for subsequent implementation. The prioritisation of the Strategic Actions takes into account the shared responsibilities across multiple branches of MFMRD oceanic and coastal fisheries, and its partner agencies, and the likely support that can be requested from donor partners and regional forums.

The prioritisation has also considered regional and national needs and ensures that projects are consecutive where required, and coordinated to avoid governance or stakeholder gaps. For example, the effectiveness and efficiency of some activities depends on the implementation of other supporting activities. Community-based fisheries management is a critical component of coastal fisheries management, but depends in turn on a strong national regulatory structure. Where relevant, each activity has been scheduled in a consecutive manner that builds the necessary policies, institutions, capacity or skills for subsequent activities.

## Short-term priority strategic actions: 2013–2017

**Strategic Action 1:** Develop a Monitoring and Evaluation (M&E) Framework for oceanic, coastal and aquaculture fisheries management and development.

The M&E Framework will focus on measuring the outputs of each strategic action and will provide the information needed to continually determine, assess and recommend the way forward toward the successful implementation of this policy in achieving its long-term vision.

**Implementation Partners and Support:**

Action should coordinate closely with the Office of Te Beretitenti and the Ministry of Finance. Potential support may be available from FFA, SPC and AusAID.

**Outcome:**

M & E Framework adopted and implemented.

**Impact:**

Strengthens good governance.

**Strategic Action 2:** Establish a voluntary artisanal vessel registry with a free compulsory training programme in relevant skills, including but not limited to safety-at-sea and seafood handling. This relates to landings of catch at the Betio processing plant and eligibility for discounted or free incentives.

The development of a vessel registry will also address the concerns/requirements of relevant authorities.

**Implementation Partners and Support:**

The registry and training curriculum should be developed in collaboration with the Maritime/Fisheries Training College, Fisheries Associations and Kiribati Fish Limited (KFL). MFMRD should coordinate the activity with MSA MCIC. FFA and SPC can both potentially provide support.

**Outcome:**

Registry established. Improved safety-at-sea for artisanal vessels. Increase in value of fish and opportunities for landing at the Betio plant. Improved fisheries monitoring.

**Impact:**

Enhances livelihoods and food security for II-Kiribati. Supports economic growth from artisanal livelihoods. Strengthens good governance.

**Strategic Action 3:** Implement Community-Based Fisheries Management (CBFM) in three pilot communities/islands. Activities should address improvement of

coastal fisheries resources management and increase climate resilience through increasing the contribution of oceanic fisheries' resources to domestic food supplies and employment, without unduly impacting on the livelihood of small-scale fishers.

Activities should also address food security, marine managed areas and commercial development concerns to avoid conflict between subsistence fisheries and commercial fisheries.

**Implementation Partners and Support:**

The Australian Government (through ACIAR) has recently made a large funding grant to the WorldFish Center, SPC and ANCORS to expand Community-Based Fisheries Management in Kiribati and two other countries. Following initial consultations, MFMRD and these partner agencies will launch CBFM programmes in three locations, in close collaboration with the SPC/GIZ CCCPIR programme. MFMRD will coordinate these activities with MISA, MELAD and relevant Island Councils.

**Outcome:**

CBFM implemented. Lagoon and fisheries management plans. Strengthened community engagement in coastal fisheries management. Decline in commercial/subsistence conflicts.

**Impact:**

Enhances food security and reduces long-term poverty through ensuring fish stocks and ecosystems are conserved. Maximises economic growth from artisanal livelihoods through focusing development strategies on small-scale fisheries. Strengthens good governance through increased transparency and stakeholder participation. Builds climate change resilience.

**Strategic Action 4:** Deployment of nearshore FADs (fish aggregating devices) network in order to support the artisanal nearshore fisheries on all islands, and develop management plans for FAD sustainability.

**Implementation Partners and Support:**

MFMRD should consult with Island Councils, MISA and MELAD on installation of FADs and location/participation concerns. Where relevant, these activities will be undertaken in phases through the CBFM programmes in the three sites for each phase. WorldFish and SPC can both potentially provide support.

**Outcome:**

Increased access to nearshore fisheries.

**Impact:**

Enhances livelihoods and food security for I-Kiribati. Supports economic growth from artisanal livelihoods. Builds climate change resilience.

**Strategic Action 5:** Review all licences and export fees for coastal fisheries to reasonable and affordable levels so as to increase the benefits to the people, and strengthen regulatory structures.

The review will focus broadly on existing legislation and policy frameworks (including conservation values) in consultation with the studies undertaken by SPC. The review will make recommendations on appropriate fees and exemptions to be implemented by Island Councils (licenses) and MFMRD (export fees). The review should also provide recommendations on guidelines and criteria for licensing of commercial coastal fisheries by Island Councils.

**Implementation Partners and Support:**

This action could be developed with, and informed by collaborative workshops with Island Councils. SPC may be able to provide technical assistance. It should also be noted that this activity was previously recommended and proposed to be funded by AusAID under its Performance Incentives Initiative.

**Outcome:**

Increased economic revenue.

**Impact:**

Strengthens good governance and supports economic growth through increased revenue.

**Strategic Action 6:** Undertake a socio-economic analysis of subsistence, artisanal and commercial fisheries in lagoons and inshore waters.

This activity will be developed with market surveys and chain of studies, and through informed collaborative workshops with Island Councils. Studies should assess local fish markets and trade supply chains to identify opportunities for further value-adding and business/market opportunities, and develop food safety and handling training interventions, including postharvest and storage issues. Particularly attention should be given to gender issues.

**Implementation Partners and Support:**

Action should engage closely with CBFM work, previous and existing SPC market surveys and the GIZ programme. Action should coordinate with MISA, Island Councils, and other relevant ministries. Support may be available from SPC.

**Outcome:**

Increased value of fish products and small-scale commercial development.

**Impact:**

Supports economic growth through increasing opportunities for small-scale fishing. Improves understanding of linkages and relationships between people and marine resources in the lagoon and inshore fisheries.

**Strategic Action 7:** Development of Fisheries Management Plans for key commercial species, including: beche de mer, pet-fish, bonefish (sport fishing and subsistence), arc shells, giant clams, seaweed, etc.

**Implementation Partners and Support:**

Action should engage closely with CBFM work where relevant and coordinate with MISA, Island Councils, and other relevant ministries. Support may be available from SPC and WorldFish.

**Outcome:**

Increased value of fish products and small-scale commercial development.

**Impact:**

Supports economic growth.

**Strategic Action 8:** Review and update Fisheries Act and other relevant acts (fisheries related provisions) as required to clarify and strengthen coastal and oceanic fisheries management.

The review is aimed at ensuring consistency with fisheries policy and management plans. Among other things, amendments should consider the establishment of Coastal and Oceanic Stakeholder Committees and mandates (Action 22 in medium-term priorities).

**Implementation Partners and Support:**

MFMRD should work closely with the Attorney-General, MISA, and MELAD and engage closely with CBFM work where relevant. Support may be available from FFA, SPC and AusAID.

**Outcome:**

Legislation updated and strengthened. Community management strengthened.

**Impact:**

Enhances food security. Maximises economic growth through increased benefits from commercial fisheries. Supports conservation through strengthening coastal fisheries management and compliance. Strengthens good governance.

**Strategic Action 9:** Survey, mapping and monitoring of ciguatera sites and public awareness.

**Implementation Partners and Support:**

Action will engage closely with MISA, Island Councils, and the Ministry of Health. Support may be available from SPC and WorldFish.

**Outcome:**

Improved community awareness of ciguatera outbreaks and national database of ciguatera sites.

**Impact:**

Enhances food security and safeguards the national interest and reputation in regard to export and live-fish trade with international partners and markets.

**Strategic Action 10:**

Strengthening of the competent authority. The use of expertise and resources to develop and certify chain of custody processes is of critical importance to the development of the domestic tuna industry and other related fisheries development activities that aim to export seafood products to foreign markets.

**Implementation Partners and Support:**

Action should engage closely with the Ministry of Commerce and Industry, Ministry of Health and other ministries as relevant. Support may be available from SPC and FFA.

**Outcome:**

Strengthened and effective competent authority

**Impact:**

Supports economic growth through enabling export markets to be developed. Strengthens good governance.

**Strategic Action 11:**

Identify priority needs and conduct training for government joint ventures (JV), in relation to finance and good governance for local board members.

**Implementation Partners and Support:**

Action should coordinate closely with Ministries of Finance and Commerce and the SOE Economic Reform programme. Potential support may be available from AusAID, ADB and the World Bank.

**Outcome:**

Minimum benchmarks established with all JVs compliant. All government board members trained in finance and board governance.

**Impact:**

Supports economic growth and employment, Strengthens good governance.

**Strategic Action 12:** Develop and implement Kiritimati Integrated Master Plan for oceanic and coastal fisheries and aquaculture, in the broader context of developments including tourism, environment, salt, fisheries jetty/wharf, etc.

**Implementation Partners and Support:**

Close engagement between MFMRD and relevant ministries for Kiritimati Island. Support may be available from SPC and FFA.

**Outcome:**

Kiritimati Integrated Master Plan adopted and implemented.

**Impact:**

Supports economic growth and employment.

**Strategic Action 13:** Establish on-going training programme in fisheries boarding and inspection, monitoring, control and surveillance,

**Implementation Partners and Support:**

Close engagement between MFMRD, PMU and potentially the Maritime Training College. Support may be available from AFMA and FFA.

**Outcome:**

Training programme launched and implemented.

**Impact:**

Supports long-term conservation and economic growth and good governance through strengthening monitoring, control and surveillance.

**Strategic Action 14:** Register for WCPFC High Seas, Boarding and Inspection as and when appropriate.

**Implementation Partners and Support:**

Close engagement between MFMRD and PMU. Support may be available from AFMA and FFA.

**Outcome:**

Kiribati registered for WCPFC High Seas, Boarding and Inspection.

**Impact:**

Supports long-term conservation and economic growth and good governance through strengthening monitoring, control and surveillance.

**Strategic Action 15:** Advocate development of measures in PNA, FFA and WCPFC that improve economic benefits from tuna for Kiribati, while conserving tuna stocks.

**Implementation Partners and Support:**

Action should coordinate closely with the Office of Te Beretitenti, Foreign Affairs, MELAD, Ministry of Labour, Ministry of Finance and other ministries as relevant. Potential support may be available from FFA and AusAID.

**Outcome:**

Kiribati-initiated measures adopted by PNA, FFA and WCPFC.

**Impact:**

Maximises economic growth through increased revenue. Ensures long-term conservation through improved implementation of conservation measures.

**Strategic Action 16:**

Monitor and assess I-Kiribati crew welfare and advocate for crew employment conditions to be consistent with world's best practice.

**Implementation Partners and Support:**

Action should coordinate closely with the Ministry of Labour and other ministries as relevant. Potential support may be available from SPC.

**Outcome:**

Better working conditions for crew on fishing vessels and improved national employment regulations

**Impact:**

Sustainable livelihood and employment opportunities.

**Strategic Action 17:**

Initiate discussions with World Bank and other donor partners to establish stabilisation fund or other innovative economic tools to support implementation of regional measures.

This may include the development of a tripartite framework with neighbouring countries, enabling a significant multi-million institutional strengthening and fisheries management implementation project to be funded. If successful, this activity would effectively address all priorities due to the size of the potential funding and the establishment of a stabilisation fund to offset any short-term losses caused by implementation of conservation measures.

**Implementation Partners and Support:**

Action should coordinate closely with the Office of Te Beretitenti, Foreign Affairs, MELAD, and the Ministry of Finance. Potential support may be available from FFA, AusAID and the World Bank.

**Outcome:**

Stabilisation fund established

**Impact:**

Strengthens good governance through consistent and transparent implementation of conservation measures. Maximises economic benefits and supports long-term conservation through consistent 'no-risk' implementation of regional measures.

**Strategic Action 18:**

Maintain and strengthen implementation of existing fisheries responsibilities as required under the act (i.e. licensing, management, implementation of international treaties, monitoring and compliance, reporting, etc.).

Establish and implement institutional strengthening framework (MFMRD) that supports this activity and integrate action plan into partnerships and service level agreements (SLAs) with regional donors and agencies.

**Implementation Partners and Support:**

Action should coordinate closely with FFA, SPC, GIZ, AusAID, New Zealand Aid Programme and WorldFish.

**Outcome:**

Donors and regional partners focus all institutional strengthening and capacity building programmes on supporting implementation of Strategic Activities.

**Impact:**

Supports all five strategic objectives.

**Strategic Action 19:**

Identify, assess, develop and implement an effective and practical framework to support outer-island fisheries development initiatives (subsistence, artisanal, commercial, value-added production, fish centres, etc.) to empower local communities and promote self-reliance at the community level to address food security, sustainable livelihoods, employment opportunities and income generation initiatives.

Among other things, the framework may identify and mobilise the necessary resources for the long-term and successful implementation of the framework.

**Implementation Partners and Support:**

Assistance may be coordinated among potential donors, CROP agencies and fishing partners to support the development and implementation of this framework.

**Outcome:**

Framework developed and implemented and to be reviewed every 4 years.

**Impact:** Supports all five strategic objectives.

## Medium to long-term priority strategic actions: 2016–2025

**Strategic Action 20:** Review policy and adopt new Strategic Action Plan 2016–2019.

**Implementation Partners and Support:**

Action should coordinate closely with the Office of Te Beretitenti, Foreign Affairs, MELAD, PMU, MISA, and the Ministry of Finance. Potential support may be available from FFA, SPC and AusAID.

**Outcome:**

New Strategic Action Plan 2016–2019 adopted.

**Impact:**

Supports all five strategic objectives.

**Strategic Action 21:** Identify stakeholders, review and establish more effective consultation processes for engagement in fisheries management and development (including negotiation, investment, traditional skills, training opportunities, policy development, planning, implementation, etc.).

**Implementation Partners and Support:**

MFMRD should coordinate widely with relevant ministries, particularly MISA, MELAD and PMU. Support may be available from SPC, FFA, AusAID, New Zealand Aid Programme and WorldFish.

**Outcome:**

Increased engagement of stakeholders in fisheries management and development.

**Impact:**

Strengthens good governance. Supports economic and conservation objectives through improved engagement of stakeholders in decision making.

**Strategic Action 22:** Develop and implement communication and education strategy to improve I-Kiribati engagement in sustainable fisheries practices, management issues, climate change adaptation and ciguatera outbreaks.

Strategy should include various community engagement activities, including (among others) close collaboration with existing education projects, and extension of existing SPC programmes to develop school curriculums to teach children about fish, food security, the importance of fish for the local population, and concerns associated with the impacts of

climate change. Should also include a website with transparent licensing details (among other things).

Strategy may consider establishing regular collaborative workshops with Island Councils, MFMRD, MISA, MELAD, FFA, SPC and stakeholders to report on MFMRD activities and discuss key development and management challenges for artisanal and small scale fisheries. MFMRD and stakeholders have previously noted there was insufficient communication with coastal fisheries stakeholders on fisheries regulations and management arrangements, and a lack of knowledge of fisheries regulations and fisheries management issues.

**Implementation Partners and Support:**

Action should engage closely with MISA, Island Councils, MELAD and other relevant ministries. Support may be available from SPC and WorldFish.

**Outcome:**

Communication and education strategy adopted. Curriculums and supporting materials distributed to schools. Website updated with licensing details online.

**Impact:**

Strengthens good governance. Supports long-term conservation and enhances food security

**Strategic Action 23:** Identify and protect important coastal habitats.

Activity should consider legislative and regulatory factors, including crossover between Environment Act/MELAD, Local Government Act/MISA and Fisheries Act/MFMRD. Identify institutional conflicts or uncertainties and recommend solutions for updating legislation (Action 9).

**Implementation Partners and Support:**

Action should engage closely with CBFM work where relevant and coordinate with MELAD, MISA, Island Councils, and other relevant ministries. Support may be available from SPC, SPREP, Conservation International and WorldFish.

**Outcome:**

Important habitats identified and protected.

**Impact:**

Enhances food security and supports conservation through ensuring important habitats are conserved. Supports economic growth and employment from artisanal livelihoods through protecting fisheries habitats. Builds climate change resilience.

**Strategic Action 24:** Review aquaculture activities and develop Aquaculture Development Strategy to maximise food security and livelihood benefits.

**Implementation Partners and Support:**

Action should engage closely with CBFM work where relevant and coordinate with MISA, Island Councils, and other relevant ministries. Support may be available from SPC and WorldFish.

**Outcome:**

Aquaculture Development Strategy adopted and implemented.

**Impact:**

Supports economic growth and employment, enhances food security and builds climate change resilience.

**Strategic Action 25:** Establish framework to harmonise and strengthen partnerships between ministries and integration of training and programmes.

**Implementation Partners and Support:**

Close engagement between MFMRD and relevant ministries where no memorandum of understanding (MoU) is present (i.e. Finance, MISA, MELAD, Commerce, etc.).

**Timing:**

In early 2013, identify key government partners where close cooperation is required with MFMRD and where no MoU is present. Develop collaborative MoUs throughout 2013 and 2014 to maximise cooperation, integration of programmes, transparency and accountability.

**Outcome:**

Frameworks are adopted and implemented.

**Impact:**

Strengthens good governance and implementation of KNFP objectives.

**Strategic Action 26:** Develop and implement marine pollution standards that address ballast water, ship and land-based pollution, and introduced/invasive species in relation to both national and regional obligations.

**Implementation Partners and Support:**

Action should engage closely with MCIC, MCTTD, Office of the Attorney-General and MELAD. Support may be available from FFA, SPREP and SPC.

**Outcome:**

Marine pollution standards and regulations are implemented and enforced.

**Impact:**

Supports conservation through protection of marine environment.

**Strategic Action 27:** Review and improve business environment for fisheries development and trade. The review should also address obstacles to investment and coordinate with other related sectors (i.e. trade, commerce, tourism, Island Councils).

**Implementation Partners and Support:**

Foreign Investment Commission, relevant government agencies, private sector, etc. Support may be available from FFA, SPC, AusAID, New Zealand Aid Programme, etc.

**Outcome:**

Business environment reviewed, recommendations enacted and more foreign investment attracted. Streamlined policy and regulatory business environment.

**Impact:**

Supports economic growth and employment. Supports long-term conservation.

**Strategic Action 28:** Develop transshipment and secondary services business plan (including baitfish, local machine shops, salt, etc.).

Business plan should address food security and commercial development concerns to avoid conflict between subsistence fisheries and commercial fisheries, and address supporting services and onshore infrastructure (ship/boat repair, slipping, gear maintenance, internet, entertainment, etc.).

**Implementation Partners and Support:**

Close engagement between MFMRD, Ministry of Commerce and Industry, Ministry of Communication, Transport and Tourism and other relevant ministries. Support may be available from FFA and SPC.

**Outcome:**

Business plan adopted and implemented.

**Impact:**

Supports economic growth and employment. Enhances food security. Supports long-term conservation.

**Strategic Action 29:** Develop national conservation measures for harvesting of sharks.

Assess shark conservation status, threats and gaps and pilot-trial a moratorium on all commercial fishing for sharks at Christmas Island, for potential subsequent expansion throughout all the Kiribati EEZ.

**Implementation Partners and Support:**

Action should engage closely with MELAD and Island Councils, and CBFM programmes where relevant. Support may be available from SPC, Pew, SPREP and FFA.

**Outcome:**

Shark conservation status assessed and pilot trial implemented.

**Impact:**

Long-term conservation of sharks.

**Strategic Action 30:** Establish bait-catching units (Bagans) at relevant locations in lagoonal islands to complement supply of bait for the use of small-scale artisanal fishers in their fishing operations targeting skipjack, yellowfin and bigeye tuna species.

Construction plans have already been developed and some prototypes have also been built locally, but the actual trialling of such bait-catching units is yet to start in Kiribati. Some neighbouring countries are already experimenting with these units and we can learn from their operations, noting that these units are successfully used in Indonesia for catching bait.

**Implementation Partners and Support:**

Betio Shipyard, private boat builders, MCTTD, and Island Councils. Potential support may be available from FFA and SPC.

**Outcome:**

Bagans set up at various locations and supply of abundant bait available for use by SSATF fishers, while surplus bait is marketed as food fish.

**Impact:**

New type of fishing methods adopted by locals, supporting export earnings for the country and generating employment opportunities for the people.

**Strategic Action 31:** Strengthening of Eco-Farm institutional capacity, including on Kiritimati Island to improve bait-fish production, replenish urban markets and provide bait support for long-line fishing vessels based in Kiribati.

This development process could be based on previous studies and could work closely with regional agencies including FAO to review and assess the existing structure and current operation systems of Eco-Farm.

**Implementation Partners and Support:**

Potential support may be available from FFA, SPC and FAO.

**Outcome:** Identify inherent constraints and develop framework to improve the existing production, harvesting and market strategies for Eco-Farm. Framework is successfully implemented

**Impact:** Strengthens food security. Generates income and creates employment opportunities.

**Strategic Action 32:** Identify viable markets niches for tuna species of less than 10 kg in size and concomitantly develop viable products processed from such tunas.

These tuna sizes can be processed locally and packaged in pouches for local consumption, while surpluses are externally marketed. Processing should also look into producing and developing various fish preservatives.

**Implementation Partners and Support:**

MFMRD to work closely with registered National Tuna Fishing Associations, Fishers Cooperatives and other genuine stakeholders interested in small-scale artisanal tuna fisheries. Potential support may be available from SPC, FFA and other relevant donors and institutions.

**Outcome:**

New markets are established for tunas caught by small-scale artisanal tuna fishers.

**Impact:**

Generates income earning activities and provides export earnings.

**Strategic Action 33:** Set up a National Food Fish & Preservatives Development Facility for the development of national food-fish dishes, thereby enhancing the dietary consumption and nutritional value of fish.

The facility will also develop preservatives and medicinal products that can potentially be made from the bones and guts of tuna. Fish oils may be required by those who do not consume adequate fish intakes; hence their diet can be complemented by taking fish oil capsules on a daily basis. Those with weak bones can also take a daily supplement of calcium prepared or developed from tuna bones.

**Implementation Partners and Support:**

Engage specialist technicians to undertake training of processors in all aspects of the business of fishing, from the environment to the table, emphasising knowledge, processing skills, national recipes, quality and health. MFMRD will work closely with various groups such as women associations, restaurateurs, NGOS/NSA, etc.

**Outcome:**

Establishment of a National Food Fish & Preservatives Development Facility

**Impact:**

Strengthens food security. Generates income and creates employment opportunities.

**Strategic Action 34:** Develop Kiritimati Island to become the regional hub for longline fishing boats.

**Implementation Partners and support:**

EU, New Zealand Aid Programme, AusAid, FFA, SPC, SPREP and World Bank

**Outcome:**

Appropriate and adequate infrastructure, facilities and services are established and operational on Kiritimati Island to support transshipment, maintenance of vessels, crew support, and direct export from Kiritimati Island to international markets via air and sea carriers.

**Impacts:**

Support other key sectors such as tourism. Support food security through improved direct trade systems between overseas and Kiritimati Island.