

Green Climate Fund Regional Tuna Programme:

Feasibility Study

Chapter 5

Sustainability plan

Prepared by the Pacific Community and Conservation International on
behalf of 14 Pacific Island countries for submission to the Green
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**Annex 2-F of the Funding Proposal “Adapting tuna-dependent Pacific Island
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Pacific
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Chapter 5. Sustainability plan

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5 Sustainability plan

In addition to discussing key considerations and elements associated with efforts to promote the sustainability of outcomes and achievements of the GCF Regional Tuna Programme (RTP), this Section includes a discussion of the exit strategies for the Programme (**Appendix 5-A**). A provisional exit strategy, to be considered and refined as appropriate at the Inception Meeting of the Programme, is also appended (**Appendix 5-B**).

5.1 Mechanisms to sustain the continued development of national FAD programmes

The potential for sustaining the two Component A initiatives is high. This sustainability will be driven by an increasing realisation that, apart from reverting to increased imports of relatively cheap foods of lower nutritional value, with consequent adverse implications for community health and wellbeing, tuna and associated oceanic pelagic fish species offer an effective and relatively accessible resource to address future food security needs.

The first set of Activities under Component A centres on utilisation of nearshore anchored Fish Aggregating Devices (FADs) to increase access to tuna for the food security of coastal communities. Support to national FAD programmes to increase the number of fish meals available per person per month is expected to make a significant contribution to filling the gap in fish supply due to a combination of the adverse impacts of climate change on coral reefs and other coastal habitats and increasing human populations. With government engagement on these interventions and demonstration of their effectiveness, there is a sound basis for FADs to be supported through recurrent national budget allocations. As FADs become an embedded national asset to generate public goods, as opposed to an occasional coastal feature supported on an ad hoc basis by donors and development assistance partners, their contribution to domestic food security will be increasingly appreciated. This will generate strong buy-in and broad community and political interest in on-going direct support from national budgets. This applies to all 14 participating countries. In addition, as of early 2024, seven of the 14 Participating Countries included the RTP in their GCF Country Programme.

The commitment of the 14 participating countries to gradually assume increasing responsibility for the costs of supporting national staff associated with this component is a firm demonstration of the intention to sustain the Programme beyond the 7-year term of support by the GCF. This transition will be achieved by participating countries providing 50% of the staffing costs required for national FAD officers in the third and fourth years of the Programme. The Programme will continue its support for the remaining 50% during this period. In the fifth and sixth years, the transition will be complete with participating countries assuming full financial responsibility for all national staff previously

partially supported by the Programme. It is anticipated that this level of national support will continue beyond the term of the RTP.

The primary focus of the second set of Activities under Component A is improved distribution of bycatch and tuna from transshipment and unloading operations by the industrial tuna fleets. In six of the 14 participating countries this will concentrate on the purse seine fishery.¹ Longliners targeting albacore will also unload bycatch and tuna at ports in Vanuatu, Fiji, Samoa, Solomon Islands and Tonga. The Programme will support activities that improve the availability of tuna and by-catch suitable for human consumption from these commercial fleets. The Programme will support efforts to improve the shelf life of these fish and promote marketing and distribution initiatives to achieve an increase in the availability of tuna and bycatch to urban and peri-urban communities adjacent landing sites.

The sustainability of this element of the Programme will be driven by the opportunities for increased availability of appropriately processed transhipped and unloaded bycatch and tuna offered for micro and small medium enterprises (MSMEs) in urban and peri-urban communities, supported by the Programme interventions. As the availability of reef-associated fisheries resources is adversely impacted by climate change, and populations in urban and peri-urban environments in the participating countries mostly increase, the potential and necessity of providing alternative sources of fish protein will escalate. As the demand for tuna increases, opportunities for the growth and creation of new tuna associated MSMEs will also increase. The Programme will seek to ensure that these MSMEs add value to bycatch and are operated profitably, as this will be key to long-term sustainability of these interventions. The transition to increased availability and post-harvest processing of transhipped and unloaded fish will be supported by governments intent on sustaining the gains made during the Programme to ensure that urban and peri-urban populations have improved access to fish for local consumption by developing and implementing policies that support increased accessibility to transhipped and unloaded bycatch and tuna from commercial fleets.

The set of activities in Component A of the Programme, which focuses on ensuring local food security, will need to i) empower small-scale fishers to progressively transfer much of their fishing effort from coral reefs to tuna and associated oceanic pelagic species to supply the fish needed for good nutrition of coastal communities; and ii) secure access to the quantities of tuna and bycatch required for food security of rapidly-growing urban and peri-urban populations from industrial fishing operations. Enabling environment and sustainability efforts supported by the Programme will include:

5.1.1 Policy, legal regulatory and enforcement

- a) Developing and implementing legislation to ensure FADs are part of national infrastructure for food security which will be supported by including national FAD programmes in recurrent national budgets. This will ensure the continued operations of national FAD programmes strengthened under the RTP.
- b) Refining national legislation to establish and enforce significant penalties for destroying or damaging FADs or violating community-based rules for using FADs. This will include clarification of FAD ownership issues so public goods and benefits from national FAD programmes are secured for the long-term.
- c) Mandating the retention and landing of bycatch and tuna from purse-seine and longline vessels in regional ports. Where such legislation will result in the quantity of bycatch and tuna regularly exceeding the national need in regular transshipment ports, (e.g. Majuro, Pohnpei, Tarawa and Funafuti) legislation to incentivise delivery of bycatch and tuna to destinations where fish is needed most, using vessels dedicated for this purpose, will be assessed. This places

the onus on regional and national agencies to find a way to move bycatch and tuna to markets. This could be complemented by regulations banning at-sea discard of low-value species, monitored as part of the regional monitoring and observer programmes in place for tuna.

- d) Where coastal FAD fishing or voluntary offloads during transshipping or unloading cannot meet local demand for tuna and bycatch for food security, appropriate policies will be considered to ensure that locally based industrial fishing fleets also supply urban and peri-urban markets through regular, specified sales of by-catch and tuna as a requirement of their fishing licences. Similar policies have already been applied in some PICs, such as Tonga, the Cook Islands and Vanuatu. In Tonga, to ensure commercial viability and locally competitive prices, the government is subsidising this type of programme and in Vanuatu, a discounted licence fee is provided for domestic fleets to enable local market sales.
- e) Participating governments will also consider stronger regulations for reef fisheries to ensure sustainability in areas where reef fish is preferred over tuna and pelagic fish, and where concerns exist that existing and future levels of fishing effort for reef fish is unsustainable.

5.1.2 Institutional absorptive capacity

- a) The Programme will facilitate a series of train-the-trainer capacity building exercises in FAD programme management, including construction, deployment, maintenance, restoration and replacement of damaged FADs. By building national and regional capacity in FAD programme management expertise, the sustainability of GCF Programme initiatives will be enhanced and a relatively non-disruptive exit of the Programme will be facilitated as local experts assume full ownership and responsibility for national FAD programmes.

5.1.3 Technical FAD program management

- a). Where appropriate, complementary finance mechanisms will be encouraged to support national FAD programmes. Options that will be further explored during the Programme, and existing good examples that could be scaled up, include 1) fishing association-based fees that contribute to FAD maintenance budgets, and 2) a public-private partnership (PPP) model, where commercial fishing companies partner with governments to assist in FAD deployment, maintenance and emergency response as part of Corporate Social Responsibility (CSR) programmes. These options will be further explored and developed during Programme implementation in the unique context of each participating country.

5.1.4 Financial and business

- a) Where the volume of bycatch and tuna sourced from transshipment and offloading exceeds local needs, additional alternatives will be explored. This will include the low-cost processing of surplus tuna and bycatch to produce fish meal and fertiliser that will be available for local agriculture and animal husbandry. The cost of importing fertilizers to improve the quality of soils, particularly in low island countries, and supplemental animal feeds, are often prohibitive in PICs. Surplus bycatch and tuna, appropriately processed, offer significant potential to establish alternative and diversified commercially sustainable enterprises.
- b) A variety of attractive opportunities exist for MSMEs to develop commercially viable activities based on the acquisition, processing and distribution of by-catch and tuna transhipped or unloaded from the commercial tuna fleets. These opportunities will be supported by national governments who will review policies, legislation and regulatory so that increased access to by-catch and tuna from the commercial fleets for small-scale local enterprises is supported.

5.1.5 Social and cultural

- a) Promotional marketing campaigns will be conducted, and local market development opportunities will be identified, to help ensure increased awareness of the role that tuna needs to play in food security, uptake of expanded national FAD programmes, and the long-term stability of tuna supply to domestic markets.
- b) Communications, awareness raising and behaviour change initiatives will be conducted by the Programme to increase community knowledge and understanding of the adverse impacts of climate change on coastal ecosystems, and the implications for the traditional reliance on reef-associated fisheries resources for nutritional needs. These initiatives will highlight the opportunity offered through increased accessibility to by-catch and tuna from the industrial tuna fleet to meet national food security requirements.

Programme activities associated with vessel design, enabling and capacity building of fishers to fish safely for tuna and other pelagic species on FADs will be completed during the Programme term, and will lead to the necessary strengthening of fishing associations and government agencies. This will ensure that the training in safe FAD fishing is embedded within national fisheries agencies and associations, and kept up on an ongoing basis beyond the lifetime of the RTP. The Programme will support the participating countries to identify suitable shipbuilders and infrastructure design and construction entities who may be able to advance these elements of support supplementary, but complementary to, Programme activities. In a similar vein, working through FFA, the Programme will assist countries locate qualified and experienced professionals, such as structural engineers, for the design and implementation of country-driven efforts to establish new market infrastructure.

5.2. Mechanisms to sustain the operation of the AWS

With small economies reliant on a narrow resource base and vulnerable to international political and economic developments, often exacerbated by a changing climate, financial sustainability is a perennial concern for PICs. With the exception of the larger islands in Melanesia with significant agriculture, forestry and mining sectors, and several Polynesian and Micronesian countries with substantial tourism sectors, the valuable regional tuna resource is the key natural asset underpinning the economies and social welfare of many Programme participating countries.

In this respect, government revenue for many PICs is mainly derived from access fees paid by industrial purse-seine tuna fleets to fish within the EEZs of PICs (see Section 2.3.12). Significant additional benefits are linked to shore-based activities associated with tuna fishing. In PNG, Federated States of Micronesia, Solomon Islands, Fiji and Marshall Islands, a range of fish-processing operations generate earnings from the export of processed products, employment and local procurement of materials and services; and transshipping operations provide additional government revenue and opportunities for micro, small and medium enterprises (MSMEs). In Kiribati and Tuvalu, transshipment offers the sole source of linked benefits. Linked benefits in Fiji are restricted to fish processing and victualling. Although of lesser scale, shore-based activities supporting a regional longline fleet targeting albacore also occur in Solomon Islands, Vanuatu, Samoa, and Tonga.

The importance of tuna to so many Pacific Island economies means that potential for long-term sustainable support for the AWS is high. This is because the AWS will have a direct influence on key decision-making at the national level and in the Western and Central Pacific Fisheries Commission (WCPFC) relating to the regulation of catch and fishing effort. The economic performance of the fishery will be largely determined by scientific advice generated by the AWS. It will underpin decisions

that have implications for the national economies of PICs, the economic performance of industry and the total on-going value of the fishery.

Consequently, there is a high degree of confidence that financial contributions to the on-going operation of the AWS will be forthcoming from WCPFC (see Chapter 3 for additional detail).

There are two main reasons for this optimism. First, the Oceanic Fisheries Programme at SPC, which will develop the AWS during the implementation of the Programme, has been the Scientific Services Provider for the Commission since the Commission commenced operations in 2005. Second, WCPFC has adopted a resolution on climate change (Resolution 2019-01²) and the AWS is expected to be the main tool for addressing Part 2 of the Resolution related to supporting “further development of science on the relationship between climate change and target stocks”.

Given that the tuna industry will use AWS-related information and advisories to determine future fishing strategies and investments there is also significant potential for industry to contribute to AWS operations in the future. The main ways in which industry will support SPC to develop the AWS and produce the forecasts and projections of climate-driven tuna redistribution include:

- a). Observers to collect the tuna tissue samples across the WCPO and Eastern Pacific Ocean (EPO) to be analysed by modern molecular methods to accurately describe the stock structure and population dynamics of skipjack, yellowfin, bigeye and albacore tuna;
- b). Tuna-tagging and tracking to verify the distribution, size and behaviour of all identified tuna stocks; and
- c). Collection of spatially explicit and accurate data on the physical and biological state of the Pacific Ocean, including collection of acoustic data to assess the responses of tuna prey to climate change.

In addition to their membership fees paid to WCPFC, there is potential for the PICs themselves to contribute financially to the ongoing costs of operating the AWS drawing on revenue generated from industrial fisheries accessing tuna in national waters. This is in their interest due to the implications for national economies of tuna re-distribution because of climate change and the value of AWS information in forecasting and projecting future features of the fishery including those associated with changes in revenue generated from the fishery within their EEZs.

The AWS Component of the RTP will support the practical application of WCPFC Resolution 2019-01. Several approved projects of the WCPFC’s Scientific Committee already provide support for the initiatives under Component B of the Programme. For example, the approved budgets for 2022-2025 for scientific work supported by WCPFC include strengthening of the Pacific tissue bank (US\$321,000 in total for the period 2023-2025) and continuing regional tuna tagging operations (US\$2.19 million for the period 2023-2025). In addition, through to 2022, the Commission also supported scientific work associated with the close-kin mark-recapture (CKMR) method for tuna stock assessment and stock structure (US\$40,000 annually). Although the WCPFC budgetary cycle does not support projections beyond three years, this history of support for Component B-type scientific activities augers well for the gradual integration of the work supported under Component B into the Commission’s long-term work programme and budget.

The AWS will also help predict changes in transshipment and unloading frequencies, locations and volumes in the region. This will guide countries with a heavy dependence on transshipments for food security (e.g., Solomon Islands) in planning alternative pathways or securing existing arrangements to increase access to tuna for urban and peri-urban communities as climate change forces the

redistribution of tuna stocks. The AWS will also enable countries with anticipated increased future opportunities for transshipments to plan programmes, policies and infrastructure (such as cold storage and distribution channels) to ensure efficient distribution of tuna and associated species to the local market. Such programmes need to also assess the impacts of the climate-induced distribution of industrially-caught tuna on livelihoods of local fishers supplying fresh tuna to urban and peri-urban markets to avoid or mitigate unintended negative consequences. Component B Activities will also explore opportunities for governments to collaborate with the private sector, which could play a larger role in distribution logistics for fish from industrial fishing operations to urban centres, contributing to the sustainability of Programme initiatives.

This component of the Programme builds strongly on the adaptation work, agencies, capacity and systems already in place in the region. The AWS will contribute to the practical implementation of the WCPFC Resolution on climate change³ adopted in late 2019 by providing the additional capacity required to operationalise the Resolution. The AWS is designed to add further necessary capacity to PIC governments, SPC and FFA (as well as to the sub-regional groupings such as the PNA, Melanesian Spearhead Group and the South Pacific Group) to better identify the range of adaptation strategies needed to build the expertise required to support PICs as they adapt to the consequences of a redistribution of tuna biomass to the east and to the high seas. This capacity is needed to work in an expedited manner on adaptive fisheries management and investment strategies and regimes required to ensure the sustainable socio-economic wellbeing of PICs.

Although the eventual outcome of the AWS will be to introduce new WCPFC regulations to enact adaptive management as the long-term mechanism to sustain the economic benefits of tuna for WCPO tuna fisheries, particularly Pacific Island economies, it is recognised that international consensus-building takes time.

A key component of the AWS will be the use of science as evidence to inform the development of a strong climate justice narrative within the region and internationally led by PIC climate champions (a capacity-building goal). This will be achieved through disseminating accurate information to PICs, and training government personnel in regional strategy development and climate impact negotiations. This will assist the region in presenting a unified front in any fisheries access and compensatory negotiations on the international stage.

This will be a key ongoing legacy of the AWS - it will give national and regional champions the necessary science, decision making tools and credibility to support successful multilateral negotiations. It will assist in the establishment of a 'climate change adaptation section' within WCPFC to enable members, but especially the tuna-dependent Pacific Island economies, to use the results of the AWS to identify, prioritise and scale up adaptation measures to reduce and transform the risks of climate-driven redistribution of tuna into government revenue, and as climate resilient and sustainable investments. This includes assisting PICs to negotiate for climate justice and access the 'loss and damage fund'⁴ under UNFCCC, in the event that the AWS confirms the significant redistribution of tuna biomass from EEZs to high-seas areas.

The main delivery mechanism of long-term adaptations informed by the AWS will be the WCPFC framework and regulations. The WCPFC has the mandate to manage the highly-migratory fish stocks in the region, and all coastal and distant water fishing nations are required to comply with its conservation and management decisions. The development and implementation of these regulations will be supported by the regional agencies, with SPC maintaining scientific capacity to collect, store and model data, and the FFA and PNA (and others as necessary) being effective regional leaders of adaptive management. After the initial 7 years, it is expected that these agencies will be able to

maintain staff to continue the operation of the AWS as a permanent feature of climate-smart tuna management across the region mostly drawing on recurrent government funding.

The majority of the science (building and improving the model) needed to develop the AWS, and the adaptive management framework and associated capacity-building goals, will be completed within the 7-year term of the Programme. Thereafter, it is expected that these instruments will become self-sustaining (along the lines of the highly effective Vessel Day Scheme (VDS)) and require fewer resources in the long term. For example, it is envisaged that the SPC will only need to maintain an AWS science team of 3-4 people, and that FFA would require only 1-2 dedicated staff to integrate the ongoing AWS functions into its usual work programme beyond the 7-year period of the Programme (see Chapter 3). In total, these costs are not expected to exceed USD 1 million per year.⁵ The majority, if not all, of the funding for these positions should be available through the WCPFC,⁶ given that the AWS will service a core area of the Commission's work once fully developed.

The current PNA VDS for purse-seine vessels is an existing rights-based management regime that has adaptive mechanisms in place, such as historical catch rates, as a basis of allocation of fishing days. The data generated by the AWS will be a crucially important component in enabling the region to act in strong solidarity to ensure that increased high-seas catches do not compromise the essential present-day contributions of the fishery to government revenue. In short, after the 7-year boost in terms of data collection, modelling and coordination of adaptive strategies under the RTP, the PNA VDS is expected to continue to benefit from the AWS.

The adaptive management regime for the region's longline fisheries is still currently under development, with the PNA longline VDS for tropical tuna in the early stages of implementation. It is anticipated that additional information and resources from the AWS will also support the implementation of a VDS-type scheme for the southern albacore fisheries. Again, once these arrangements are in place, led by the FFA, PNA and WCPFC, maintaining and improving the management systems after the 7-year Programme will be possible.

The above-mentioned management regimes driven and implemented by PICs will help pave the way for the eventual negotiation of a high-seas VDS scheme within the WCPFC convention area. The information from the AWS and the proposed WCPFC 'climate change adaptation section' will be crucial in ensuring strong climate justice arguments for sharing high-seas tuna resources in an equitable way, extending the legacy and effectiveness of the GCF Programme.

If the AWS predicts that the stocks between the WCPFC and neighbouring IATTC convention areas will become shared to a larger extent, RTP-generated data, analysis and modelling will support work towards necessary frameworks and agreements between WCPFC and IATTC to harmonise tuna management across the two jurisdictions. The AWS will pave the way for strong climate justice arguments to be embedded into these agreements to ensure that PICs retain an equitable share of the benefits. A 'climate change adaptation section' within WCPFC, a strong climate justice narrative for the region based on AWS data, and any 'loss and damage' compensation systems under the UNFCCC, should result in a lasting impact for the AWS.

The industrial tuna fishing and processing industry will also be contributors to, and beneficiaries of, the AWS because it will help predict changes in the distribution of tuna and guide investment strategies. Legislation to enable collaboration between SPC, FFA and industry that allows fishing vessels to provide data on sea surface temperature, currents and micronekton acoustics (noting that large-scale real-time oceanographic databases supported by remote sensing arrays, e.g. TAO/TRITON buoys, already provide data). The voluntary participation of industry in programmes to acquire

oceanographic and biological data from their vessels, essentially under a 'ships of opportunity' type of arrangement, is a genuine demonstration of long-term support for the AWS.

As explained above, the ongoing costs of operating the AWS are largely expected to be met by the WCPFC membership and associated stakeholders (e.g. industry). However, the project period offers the opportunity to design and explore other funding mechanisms, such as national sovereign wealth funds, social impact investors, blended finance (mix of private investment supported with public-funded technical assistance), climate or blue bonds, parametric insurance and saving schemes for climate adaptations, to supplement the long-term costs of adaptive management of the fishery.

5.3. Supplementary efforts by PICs

PICs continue to develop their individual and collective capacity to access innovative sources of finance to instigate and sustain initiatives associated with the WCPO tuna fishery that contribute to their social and economic wellbeing. A summary of options open to PICs includes:

Hypothecation: Hypothecation offers significant long-term potential for sustaining the initiatives supported under the Programme. Hypothecation is the practice of earmarking specific revenue, such as fisheries access fee revenue, for a particular purpose. Hypothecation promotes transparency and accountability in the allocation and use of revenue. It provides opportunities for stakeholders, including the industry and the public, to understand how the funds are being utilized, tagged and tracked reducing the potential for misuse or misallocation. There is much scope for this to be considered in nine of the 14 participating countries where tuna-fishing access fees comprise 4-70 % of all (non-grant) government revenue.

Tuna as a critical national and regional asset: Hypothecation will be enhanced through the formal recognition of tuna as a key renewable resource sustaining the economic and social development of PICs. The ability of national governments to contribute to the on-going development of this sector, and to attract international partners to support them in this endeavour, will be enhanced by the acknowledgement that tuna fisheries require support through its declaration as a critical-national asset. This will elevate the prominence of tuna in Government decision-making processes recognising its essential role in supporting national and the regional economic, social, and environmental well-being.

Government matching rebates for sustainability: Governments may consider providing subsidies to industry to incentivize support to actions that may include facilitating research cooperation based on the AWS that contributes to sustainable adaptive fisheries management arrangements and conservation efforts. Such subsidies may be linked to compliance with regionally agreed conservation and management obligations also expected to stem from the AWS.

Bilateral and multilateral development or technical assistance: PICs have a long history of productive partnerships with a range of bilateral and multilateral development assistance agencies. Some of these are based on historical colonial ties while others have been established more recently through international institutions providing support to developing economies. These sources of technical and financial assistance will continue to be important to PICs, including in relation to sustaining initiatives implemented during the GCF Programme.

Public-Private Partnerships (PPPs): Collaborative partnerships between governments, the private sector, and NGOs have potential to provide access to diverse funding sources, advanced technology, and expertise. These collaborations leverage relative strengths of partners to achieve a common goal, such as the sustainable management and conservation of regional tuna resources.

PPPs can build trust and confidence and improve data collection and monitoring, enhance compliance with regulations and reduce IUU fishing through the establishment of cooperative agreements, and facilitate investment in down-stream infrastructure, such as port facilities and cold storage, improving the overall value chain. Care in managing potential conflicts of interest, political conveniences and transparent monitoring and reporting on partnership benefits attract significant attention in PPPs.

Examples of PPP include:

- Public-Private Partnerships in the Maldives: The Maldives issued the world's first sovereign sustainability bond in 2020, a portion of which is dedicated to blue economy projects, including sustainable fisheries development.
- Several Pacific Island nations have embarked on PPPs in the tuna fisheries sector. For instance, Papua New Guinea is in the process of partnering with private companies to create tuna processing facilities, boosting employment and economic growth.

Although it is not intended to provide support for such initiatives through the Programme, participating countries may explore options in this regard independently.

Other possibilities that were considered in assessing the sustainability options for the Programme included relatively new and innovative facilities such as impact or parametric insurance and blue bonds. Apart from the possibility that PICs may consider insuring against the loss of FADs due to an extreme weather event, or the loss of revenue from licensing fishing vessels under access arrangements as a result of reduced demand for access as a consequence of the redistribution of tuna, these possibilities were assessed as not offering significant potential to support the sustainability endeavours of the RTP. In addition to the relatively low value that would be assigned to FAD units for insurance purposes, insurance products generally rely on significant historical data holdings to assess risks, associated premiums and compensation scheme. The required data is generally not available.

Impacts on fisheries access payments are unlikely to be instantaneous, they are forecast to evolve over a period of decades. Given significant budgetary pressures to service other national needs (health, education, sanitation, infrastructure, etc.), PICs will be challenged supporting a long-term financial commitment to pay premiums with limited possibilities of securing a benefit in the near term. Although not related to sustaining RTP outcomes, the potential of incorporating impact insurance in Pacific Islands tuna fisheries includes:

- Weather index-based insurance (WIBI) for fishing communities.⁷ Pacific Island governments are often able to mobilise international funding to support post-disaster relief and recovery efforts, however, only about six per cent of rehabilitation requirements are generally met. Innovative insurance schemes could therefore help to fill this gap by protecting the livelihoods of vulnerable farmers, fishers and other value chain actors. WIBI differs from traditional indemnity-based insurance. It is a contingent claim contract for which lump sum pay-outs are made based on the occurrence of a specific weather parameter that is closely associated with yields, cost or revenue. Insurance payments are made based on pre-determined damages for a defined weather impact (e.g. rainfall, drought or wind strength) and not on losses measured and verified in the field. A major advantage is that the policies are flexible and designed to reflect exposure and risk in specific areas. Neither producers nor insurers can influence the index.
- Fisheries Compliance Insurance: Covering the costs associated with compliance with international and local fishing regulations.

- **Price Insurance:** Protecting against fluctuating market prices by offering compensation when prices drop below a certain threshold.
- **Sustainable Practices Incentives:** Offering discounts or bonuses to industry who follow sustainable fishing guidelines, encouraging responsible practices.

Although beyond the intended activities of the RTP, impact insurance has the potential to play an important role in Pacific Islands tuna fisheries by mitigating risks and providing financial security to vulnerable communities. The unique challenges faced by these fisheries, from climate change to market volatility, make them interesting candidates for impact insurance that delivers for public good. With appropriate strategies, partnerships, and regulatory support, impact insurance offers significant potential to contribute to the sustainability of regional tuna fisheries.

Also beyond the remit of the RTP, the Loss and Damage Fund, initially designed to address climate change impacts, may be adapted to provide financial support for the industry in the face of losses and damages incurred due to overfishing, climate change, natural disasters, and market volatility. Defining eligibility criteria and assessing losses and damages, especially in the context of overfishing and climate change impacts, can be intricate and require detailed assessments. The AWS outputs will play a significant role in informing any negotiations related to loss and damage for PICS.

Debt-for-nature swaps offer a multifaceted solution to address economic and environmental challenges. They involve either bilateral or multilateral arrangements to assume part of the debt of a struggling economy in return for a commitment to from the recipient Government to conserve natural resources. The global value of debt-for-nature arrangements has recently been estimated to be US\$800 billion. In 2023, Ecuador struck the biggest debt-for-nature deal of its kind: refinancing \$1.6bn of its commercial debt at a discount in exchange for a consistent revenue stream for conservation around the Galápagos Islands. Features of debt-for-finance include:

- a). **Conservation Finance:** Debt-for-nature swaps generate funds that are channelled directly into marine conservation and sustainability initiatives, such as creating marine protected areas and investing in resource management.
- b). **Debt Reduction:** These swaps can help alleviate the debt burden of Pacific Island nations, freeing up financial resources that can be redirected towards critical areas like fisheries management and climate adaptation.
- c). **Sustainable Practices Incentives:** By linking debt relief to sustainable fishing practices and conservation measures, debt-for-nature swaps incentivize the adoption of eco-friendly methods and gear that protect tuna populations and the broader marine ecosystem.
- d). **Climate Resilience:** The proceeds from these swaps can be invested in climate-resilient infrastructure for fishing fleets, enabling the industry to adapt to changing weather patterns and other climate-related challenges.
- e). **Market Access and Pricing:** Successfully implementing debt-for-nature swaps can enhance the sustainability of Pacific Island tuna fisheries, making their products more attractive to markets that demand sustainably sourced seafood.

In addition to examples from Ecuador and Barbados, examples demonstrating the application of debt-for-nature swaps to support the Pacific Island tuna fisheries:

- a). The Seychelles: In 2016, the Seychelles entered into a debt-for-nature swap agreement with The Nature Conservancy. The country converted a portion of its debt into funding for marine conservation and sustainable fisheries management, securing financial resources for critical initiatives.
- b). Indonesia: Indonesia has been involved in several debt-for-nature swaps to address environmental and conservation challenges, including marine conservation and fishery management. These agreements have supported the protection of critical marine areas and sustainable fishing practices.

Debt-for-nature swaps represent an innovative and promising solution for ensuring the sustainability of Pacific Island tuna fisheries while simultaneously supporting marine conservation and environmental protection. These financial mechanisms can generate funds for critical marine initiatives, provide debt relief to Pacific Island nations, and incentivize sustainable fishing practices. By fostering collaboration, maintaining transparency, investing in technology, and engaging local communities, the Pacific Islands can effectively harness the potential of debt-for-nature swaps to secure the future of regional tuna fisheries and promote the health of the broader marine ecosystem.

In the context of the RTP, further research on the potential for a debt swap may be beneficial. If countries committed to: 1) maintaining or expanding their FAD programmes and allocated the necessary proportions of their tuna resources needed for domestic food security; and 2) rigorously applied the results of the AWS to their role in regional tuna management arrangements, they would demonstrate an effective sustainability mechanism that might be considered in a debt-for nature deal. However, the additional research would include assessing the potential for lenders to re-consider the current purpose of debt for nature swaps to include debt swaps for 'sustainable use of natural resources to optimise socio-economic benefits'.

5.4 Conclusion

Individually and collectively, PICs have accumulated a wealth of experience in sourcing international finance to support their social and economic development. This has involved a diverse range of bilateral and multilateral sources particularly those involved in development assistance. Historically, this funding has been applied to critical sectors such as health, education, and infrastructure. This experience, combined with on-going capacity development and the rapidly evolving nature of international finance in support of environmental management, resource conservation and responding to climate change offers significant potential for PICs to partner with financing institutions to sustain initiatives such as those supported by the Programme.

Appendices

Appendix 5-A: Rationale and description of key elements for an exit strategy for the Regional Tuna Programme

Introduction

The key considerations in preparing an Exit Strategy⁸ include:

- timeframe;
- exit criteria, benchmarks or targets, and actions to support transition to exit the Programme;
- key stakeholder engagement and roles in the Exit Strategy design and implementation;
- the extent and phase down of financial resources made available under the Programme;
- the transition of beneficial Programme-initiated activities to alternative means of support including self-sufficiency, and
- a means to monitor, evaluate, communicate and report on Exit Strategy provisions and implementation.

The Strategy requires exit indicators, monitoring systems for measuring progress to exit, and identification of capacities to be built as Programme support is reduced or ends.^{9,10}

An Exit Strategy may accommodate three approaches; a phase-down, phase-over and phase-out.¹¹ A phase-down involves the reduction in Programme support towards the termination date. A phase-over results in the transfer of all or part of responsibility for the Programme to a different agency. A phase-out is the withdrawal of Programme support without transferring responsibility to another agency.

The approaches adopted in an Exit Strategy are mainly based on organizational and programmatic objectives and may include a combination of approaches.¹² A phase-down aims at enabling funding agencies to become more strategic with their scarce resources while preparing local stakeholders to become more capable of sustaining programme outcomes. A phase-down should ensure that reduction in inputs and activities does not correspond to reduction in programme benefits. A phase-over aims at continuing key services or activities under a new management arrangement. As a consequence, it emphasizes institutional capacity in assuming continued responsibility for the delivery of programme outcomes.¹³ A phase-out targets the achievement of a constant benefit flow without external inputs. The desired outcome after a phase-out is self-sufficiency while the worst is loss of benefits gained during the intervention after the phase-out.¹⁴ This Exit Strategy involves a phase-down of GCF support and a phase-over so that Programme initiatives are built upon, and in larger countries expanded, with sustained support from national Governments and development assistance support as opportunities arise.

Five principles guide the formulation of this Exit Strategy (Table 1).

Principle	Detail of principle	Action
Transparency	<ul style="list-style-type: none"> - Plan exit based on transparent communication about relevant activities - Ensure all stakeholders informed of when, why and how exit occurs 	<ul style="list-style-type: none"> - Coordinate and utilize open communication channels to inform/explain reasons, methods and timelines for exit with clarity
Inclusion	<ul style="list-style-type: none"> - Include stakeholders in discussions on exit process 	<ul style="list-style-type: none"> - Define stakeholders' roles and responsibilities clearly with their participation - Set up meetings at a regular basis and include all or key stakeholders to discuss exit strategies
Predictability	<ul style="list-style-type: none"> - Use program outcomes and impact for making justifiable decisions about exit 	<ul style="list-style-type: none"> - Set up sessions with key stakeholders for their understanding of outcome measures and impact assessment
Flexibility	<ul style="list-style-type: none"> - Include room to modify and adjust exit plans and activities - Stay flexible in case of sudden changes in program components and funding 	<ul style="list-style-type: none"> - Set up regular meetings for voices of stakeholders heard and reflected - Obtain agreement with stakeholders on plan modifications and rationale behind them
Obligation	<ul style="list-style-type: none"> - Identify and manage risks and opportunities associated with exit for local stakeholders 	<ul style="list-style-type: none"> - Analyze risks and opportunities associated with exit for stakeholders, and draft potential solutions to risks - Acknowledge emotional aspects of possible stakeholder deprivation by exit

Table 1 Five principles of an Exit Strategy.¹⁵

Timeline

Ideally, external support should not exit a Programme until benefits achieved through Programme actions can be sustained. However, an exit rarely takes place with ensured sustainability of benefits due to financial or institutional constraints.¹⁶

Planning for exit is a sophisticated process that includes development of a set of exit strategy criteria and their benchmarks or targets, and a monitoring system.¹⁷ Those exit activities need to be continuously reassessed in the context of changing circumstances.¹⁸ As a result, they need to be planned at the earliest stages of programme design to secure the lead time needed for modification, consensus and obtaining the required resources.

From the beginning of a programme, all stakeholders, should firmly acknowledge that exit will happen. This recognition reduces risks associated with a sense of dependence on the programme and resentment against the exit.¹⁹ More importantly, it stimulates stakeholders to become self-reliant by strengthening their technical and institutional capacity. A greater sense of local ownership can result as local stakeholders are part of exit planning.²⁰

Another advantage of setting a timeline at early stages is that it provides sufficient lead time to devise the means for generating necessary resources, and to plan a staff-transfer to other relevant programmes after the exit.²¹ Staff aware of the exit timeline may better align themselves to implement the exit activities effectively and efficiently.²² Therefore, setting an exit timeline early during programme implementation makes it less likely that a programme winds down without proper preparation or simply rolls over from cycle to cycle.²³

A longer-term programme, such as the GCF Regional Tuna Programme, provides flexibility for an extended gradual exit. A gradual exit provides opportunities to observe which programme components are established and identify and secure complementary programmes as needed.²⁴

In addition, a gradual exit of programme activities guided by programme goals allows lessons learned to be applied to subsequent activities, similar programmes, or strategic planning.^{25,26} Stakeholders may build experiences in independent operations prior to exit. These experiences can be used to assess their technical, managerial and institutional capacity.²⁷

A degree of flexibility with an exit timeline is also important because programme components or external circumstances can change during the funding cycle. Flexibility makes unplanned but necessary adjustments more implementable.²⁸

Exit criteria, benchmarks and targets

Exit criteria, such as achievements of impact targets or progress made toward sustainable outcomes, should be established and agreed upon by key stakeholders.²⁹ The principle role of impact indicators is to determine whether key program components are effective and sustainable.³⁰ Good impact indicators should be specific, measurable, achievable, realistic and time-bound.³¹ Thus, impact indicators are a good proxy to gauge readiness to exit.³²

The use of impact indicators poses risks. The targeted level of impact may be unachievable within the exit timeline, in which case the indicators demonstrate the need for an exit timeline modification.^{33,34}

The use of impact indicators for exit can also disincentivize achievement of programme goals.³⁵ When local stakeholders perceive that reaching a given level of an impact target will trigger a withdrawal of programme support, the motivation to achieve that impact can be adversely affected.³⁶ Likewise, if exit is considered abandonment by local stakeholders' once they have demonstrated competency, their motivation for achieving impact targets or strengthening their own capacity can be undermined.³⁷ This is a fundamental challenge for an Exit Strategy because it punishes motivation and success.³⁸

Benchmarks or triggers³⁹ are the operationalized measurable indicators of the exit criteria and should be linked to specific programme elements that are to be phased down, over or out.⁴⁰ Therefore, selection of exit benchmarks needs to be based on an analysis of effective aspects of a programme and identification of indicators that clearly demonstrate progress.⁴¹

Benchmarks can be expressed qualitatively or, using measures such as percentage or frequency, quantitatively.⁴² Finally, action steps to assess and measure the stated benchmarks should be delineated. Accordingly, responsible parties or key individuals must be identified to take those action steps with their roles and responsibilities spelt out.⁴³

Key stakeholders and relationships

Identifying potential and actual key stakeholders is a conscious choice because they vary in expertise, capacity, geographic location, focus and value.⁴⁴ For instance, some of them will have built sufficient capacity to wield a political influence, and disseminate a particular agenda. Some might be highly professional with a strong position at a national level whereas others may be at a developing stage with a local foothold.⁴⁵ Nevertheless, identifying stakeholders and tapping their cooperation sets the stage for a successful exit because their clear understanding of programme goals likely provides necessary support to realize those goals.⁴⁶ The GCF Regional Tuna Programme has a sound appreciation of key stakeholders at the regional and national government levels in all Participating Countries. Some additional confirmation of stakeholders will be supported early during Programme implementation to confirm national stakeholders, including among communities, that will be engaged in the Programme.

A programme exit, by definition, almost always means the end of funding and other resources. But the key stakeholders may plan and assist in mobilizing adequate resources to maintain the necessary scope and quality of services for sustained benefit flows after exit.⁴⁷ Furthermore, acknowledging the programme goals clarifies roles and responsibilities among stakeholders. This reduces potential misunderstandings of the exit and exit activities, and future dependency on external support.⁴⁸

Horizontal linkages are networks of similar groups or key individuals. Their regular contacts provide them with a source of information, mutual support and assistance. Horizontal linkages potentially offer economies of scale in purchases and keep morale and motivation high. Vertical linkages, on the other hand, are networks with higher-level organizations. Local or lower-level stakeholders can receive resources from these higher-level organizations, such as consumable supplies or training, administrative assistance including supervision, and legal authorities.⁴⁹

The quality of a relationship can influence the quality of exit. Key stakeholders who are disengaged in an exit planning tend to find an exit unacceptable or even a crisis.⁵⁰ However, key stakeholders who are deeply engaged and well informed may contribute to setting a positive tone on exit activities in order not to lose the momentum. This positive tone gathers further support for a smoother exit by shifting a negative denial of the exit to a claim for ownership.

With and after exit, donors and local stakeholders can build a new relationship with new roles, rather than abruptly ending their established relationships; donors adopt an advisory role on local organizations and individuals while those local stakeholders assume responsibilities to run programme activities. Their linkage can ensure that the programme outcomes continue to be beneficial, and do not have detrimental impacts or deteriorate.⁵¹

In summary, although identifying key stakeholders is a critical step for exit, efforts should be made to foster their linkages for a stronger network and partnership with other donors or organizations. This is likely to produce synergistic effects among other relevant programmes, government agencies, and donors through sharing administrative channels, financial and human resources, and innovative ideas.⁵²

Monitoring and evaluation

Exit plans should be periodically reviewed to ensure they are feasible, realistic and on-track.⁵³ An exit monitoring system provides stakeholders with a degree of flexibility and room to modify exit plans within a timeline or funding cycle.⁵⁴ An exit monitoring system integrated into the overall programme's monitoring plan reduces a burden of monitoring efforts and maximizes resources allocated to the monitoring plan for both exit and program activities.

There are three overarching measures to evaluate effectiveness of an adopted Exit Strategy whether; the programme impact is sustained, expanded or even improved after a programme exit; the programme activities are continued in the same or modified format; and the developed system continues to function effectively.⁵⁵

The success of an Exit Strategy cannot readily be assessed without a post-exit evaluation that is rarely carried out.⁵⁶ Most evaluations tend to be conducted at the end of the programme cycle, not returning to the programme site some years after exit. Post-exit evaluations provide stronger evidence of effectiveness of adopted Exit Strategies, and identify what factors predict long-term sustainability of key programme outcomes.

Rarity of post-exit evaluations is attributable to programme funding cycle that supports a return to the programme after the funding cycle ends.⁵⁷ Thus, funding for a systematic post-exit evaluation should be secured to [1] determine effectiveness of an exit strategy, [2] identify factors for a successful exit, and [3] draw lessons for future exits with similar programmes.

In the absence of a post-exit evaluation, the GCF Programme will support a comprehensive mid-term and terminal evaluation managed by the AE. The Terms of Reference for these evaluations will be determined in consultation with the GCF Secretariat and the Executing Entity. One element that will

be subject to particular attention in both reviews will be an assessment of the status of Exit Strategy design and implementation.

An evaluation challenge arises when an Exit Strategy is implemented under changing contexts. In such cases, it may not be possible to separate factors that led to a successful exit from other factors that the changes in contexts brought about. For instance, when a recipient government formulates a specific policy that happens to support the programme or sector, the sustained programme benefits after exit can be partly or entirely attributable to government support. Or when there is a political upheaval or natural disaster at the programme site, it would be irrational to solely blame the Exit Strategy for discontinued benefits.⁵⁸ The GCF Programme is exposed to risks such as these.

Appendix 5-B: GCF Regional Tuna Programme Exit Strategy

Objective

The objective of this Exit Strategy is to provide the means to transition roles and responsibilities from the GCF Programme to participating countries and their regional agencies responsible for providing on-going logistical and technical support across the range of initiatives supported under the Programme.

This Exit Strategy describes a plan for the phasing out of the technical and logistical support provided through the GCF Regional Tuna Programme to the 14 participating countries, the regional executing agency, SPC, and implementing partners (FFA, FAO and CSIRO) over the 7-year programme delivery timeframe.

The Strategy is formulated on the basis that exit-related actions will minimise the potential for Programme outcomes realised during implementation to be jeopardized and maximise medium and long-term opportunities to sustain the achievements and impact of the Programme.

Responsibilities

The Accredited Entity (AE), Conservation International, and the Executing Entity, the Pacific Community (SPC), both have decades of experience in multiyear, multinational resource conservation and management initiatives that utilise a range of external financial and institutional support within fixed timeframes. The conclusions of the majority of these initiatives are characterized by a phase-down, phase-over or phase-out period.

Implementing partners, the FFA and FAO, have similar experience in this area demonstrating many years of experience with the successful delivery of donor-supported initiatives across multiple years and for groups of participating countries featuring common but differentiated implementation environments. This experience extends to support for systems for monitoring and evaluation, participation in independent programme reviews and partner engagement to share lessons learned to support strategic coordination of future interventions.

Implementation

Planning for this transition will commence during Programme inception and will be implemented in a phased manner across the 7-year duration of the Programme.

Partnerships and roles

At the regional level, the Exit Strategy provides for the identification of partners with the financial and technical capacity to participate in the implementation of Programme activities in a shared role. The identification of partners started during the design phase of the project (see Section 4.1.2 for information on related initiatives) and current initiatives were consulted to ensure alignment of the Programme's proposed interventions. In the early phases of Programme implementation, the Project Management Unit (PMU) will review initiatives supported by other donors that are planned, or in the process of implementation, that have features that align with the Programme (see Section 4.1.2).

Partnerships may be established for a short duration at any stage in Programme implementation, for the duration of the Programme or may continue beyond the conclusion of the Programme. The nature of the partnership may involve financial or technical contributions.

Component A

At the national level, during the Programme design and consultation, transition arrangements that will apply to key elements of Component A of the Programme were discussed with participating countries. The outcome was a commitment by all 14 participating countries to assume increasing responsibility for the employment of FAD management officers responsible for implementing all national activities, including data collection, embedded within the fisheries department as Programme implementation proceeds. The transition involves the Programme providing full support for such positions within the national fisheries agencies of each of the 14 participating countries for the first two years of the Programme, and 50% of the salary for years 3 and 4 with the government assuming responsibility for the other half, and the government covering 100% of salary costs in year 5 and beyond. This commitment by participating countries to assume eventual full responsibility for the FAD-related aspects of the GCF Programme is a critical element of the Exit Strategy. Furthermore, the participating countries have been alerted to the need to include the salaries, job description and other costs associated with maintaining their strengthened national FAD programmes and infrastructure, in recurrent national budgets. The provision of No Objection Letters is acknowledgement of this condition.

To support this endeavour, the Programme will facilitate a series of train-the-trainer capacity building exercises in FAD programme management, including construction, deployment, maintenance, restoration and replacement. By building national and regional capacity in FAD programme management expertise, the sustainability of GCF Programme initiatives will be enhanced and a relatively non-disruptive exit of the Programme will be facilitated as local experts assume full ownership and responsibility for national FAD programmes. The train-the-trainer exercises are scheduled to commence in the second year of the Programme. Graduates from the training exercises will be available to serve as resource personnel for FAD-related initiatives supported throughout the remainder of the Programme at both national and regional levels. This meets the criteria of providing adequate time to identify and nurture a pool of local expertise that will be critical to realising the objective of the Exit Strategy (see Appendix A).

Component B

In relation to Component B, the basis for the Exit Strategy is already institutionally firmly established. Initially funded through a series of donor grants since 1995, SPC has been developing SEAPODYM as an ecosystem and population dynamics model to inform decision-making relating to the management of tuna stocks in the context of climate and ecosystem variability, and to investigate potential changes due to anthropogenic activities including global warming and fisheries pressures and management scenarios. SEAPODYM has been utilised by the SPC, as the WCPFC's Science and Data Management Services Provider, in the provision of analytical advice to the Commission's Scientific Committee since 2008.⁵⁹ It has increasingly been the primary analytical tool to inform the Commission on changes in the dynamics of target tuna resources in response to changing oceanographic conditions as a consequence of climate change.

The reliance of the Commission on analytical models such as SEAPODYM is further reinforced by the Commission's Climate Resolution (CMM 2019-01) adopted in 2019. This was the first declaration by a Regional Fisheries Management Organisation (RFMO) to address the inter-related issues of climate

change impacts, and the effects of commercial fishing, on tuna stocks.⁶⁰ The Resolution was prompted by a proposal from a delegation of FFA members to the annual Commission meeting in December 2019. The FFA proposal brought to the Commission's attention a Pacific Islands Forum Leaders' declaration from August 2019 advocating for the need for urgent climate action.⁶¹

Although the Resolution is still being operationalized, for example, with advice being sought on appropriate indicators to inform the Commission's response to climate-related impacts on WCPO tuna stocks, the 2022 WCPFC meeting decided to require annual updates on the climate Resolution as a standing item on the Commission's agenda.⁶²

The AWS Component of the GCF Programme will support the practical application of Resolution 2019-01. In terms of this Exit Strategy, several approved projects of the WCPFC's Scientific Committee already provide support for the initiatives under Component B of the GCF Programme. For example, the approved budgets for 2022-2025 for scientific work supported by WCPFC include strengthening of the Pacific tissue bank (US\$321,000 in total for the period 2023-2025) and continuing regional tuna tagging operations (US\$2.19 million for the period 2023-2025). In addition, through to 2022, the Commission also supported scientific work associated with the close-kin mark-recapture (CKMR) method for tuna stock assessment and stock structure (US\$40,000 annually). Although the WCPFC budgetary cycle does not support projections beyond three years, this history of support for Component B-type scientific activities augers well for the gradual integration of the work supported under Component B into the Commission's long-term work programme and budget, and is expected to be a key element in the implementation of this Exit Strategy.

As the tuna fishing and processing industry is both a key stakeholder, and a primary beneficiary, of this initiative, the Exit Strategy also incorporates a gradual increase in the contribution of industry to the ongoing development and operation of the AWS. The main ways in which industry will assist SPC to develop the AWS and produce the forecasts of climate-driven tuna redistribution include supporting:

- a). Observers to collect the tuna tissue samples across the WCPO and Eastern Pacific Ocean (EPO) to be analysed by modern molecular methods to accurately describe the stock structure and population dynamics of skipjack, yellowfin, bigeye and albacore tuna;
- b). Tuna-tagging and tracking to verify the distribution, size and behaviour of all identified tuna stocks; and
- c). Collection of spatially explicit and accurate data on the physical and biological state of the Pacific Ocean, including collection of acoustic data to assess the responses of tuna prey to climate change.

When this information is incorporated into the SEAPODYM model to identify the projected spatial and temporal effects of climate change on each tuna stock, stakeholders will have regular and more robust assessments of recommended sustainable catches for the decades ahead. This information will help the fishing industry to optimize operations and is expected to increase its willingness and confidence to support long-term investments in progressive improvements to the AWS.

Contributions to the collection of data and samples needed to improve forecasts and projections for the responses of the WCPO and EPO marine ecosystems to climate change by industry will lead to direct industry benefits including:

- a). More robust assessments of sustainable levels of fishing effort in the face of climate change, empowering industry to make strategic decisions about investments in shore facilities, and the best locations for these facilities.
- b). An ability to demonstrate contributions to science, a factor that is taken into account when management authorities assess participatory rights in a fishery. Such contributions are also

considered by some certification schemes, and during evaluation of applications for membership of regional organisations.

- c). The capacity to meet the requirements of financial institutions which specify that climate-related considerations must be reflected in applications. Such requirements are increasingly expected to be a pre-condition for commercial financing.
- d). Enhanced safety-at-sea (and more effective search and rescue operations if needed) through planning of fishing operations based on improvements made to global climate models to avoid the impacts of cyclones/typhoons. Scheduling of transshipment and unloading activities will also benefit from more robust forecasts of weather and associated sea conditions.
- e). Demonstration of social responsibilities associated with participation in the tuna fishery. Socially responsible engagement in collection of oceanographic and biological data is expected to be particularly important for Pacific Island States that license industrial fleets to fish in their waters.

As the Programme progressively produces advice that is both of improved resolution and predictive accuracy, industry will be encouraged to make increasingly significant contributions to support the ongoing development and maintenance of the AWS. In the medium to longer-term, financial contributions by industry to initiatives under Component B are likely to become compulsory and a pre-condition of participation in the fishery. Although such a policy will potentially take more than 5 years to be debated and agreed to in the Commission, there is potential for such a commitment to be adopted before the conclusion of the GCF Programme, and to contribute significantly to the Programme's Exit Strategy.

Monitoring and evaluation

The Project Management Unit (PMU) will be staffed by a Monitoring, Evaluation, Research and Learning (MERL) team who, in consultation with participating countries, will be responsible for overall Programme monitoring and evaluation components, including the drafting and refinement of regional and national level exit strategies. Monitoring of Programme activities against key performance indicators identified in the Programme results logframe will be a standing item for the annual meeting of the Project Steering Committee.

The AE, in consultation with the EE, will be responsible for an independent mid-term and terminal evaluation. The Terms of Reference for these evaluations, which will include an assessment of progress and issues arising relating to the Exit Strategy, will be endorsed by the Project Steering Committee.

Endnotes

¹ Federated States of Micronesia, Kiribati, Marshall Islands, Papua New Guinea, Solomon Islands, and Tuvalu. A new port is under construction at Nauru which has the potential to attract a considerable number of port visits by fishing vessels.

² <https://cmm.wcpfc.int/resolution/resolution-2019-01>

³ WCPFC Resolution 2019-01. Noting that WCPFC resolutions are voluntary and non-binding www.wcpfc.int/doc/resolution-2019-01/resolution-climate-change-it-relates-western-and-central-pacific-fisheries

⁴ USD 700 million was pledged at COP28 in Dec 2023 at Dubai.

⁵ SPC estimated 2027 staff (4) salary costs at Euro 439,000 - 578,000. FFA estimated staff (2) at Euro 300,000 and additional communications at Euro 150,000

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- ⁶ The annual budget of the WCPFC for 2024 was US\$9.3 million. <https://meetings.wcpfc.int/node/21637>
- ⁷ <https://www.farm-d.org/action/weather-index-based-insurance-a-viable-option-for-small-pacific-islands/>
- ⁸ Significantly informed by Lee, H. 2017. Exit Strategy for Aid Programs: Planning Exit before Entering. *International Journal of Social Science Studies* Vol. 5, No. 7. 7 pages. URL: <http://ijsss.redfame.com>
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- ⁶² Including the Commission's subsidiary bodies.