

Pacific 2020

BACKGROUND PAPER: FISHERIES

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Pacific 2020 Background Paper: Fisheries

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Disclaimer

This paper is one of a series of nine background papers written for the Pacific 2020 project, which was conducted by the Australian Agency for International Development (AusAID) in 2005. Pacific 2020 examines various components of the economies of the Pacific, Papua New Guinea and East Timor. It aims to generate practical policy options to contribute to stimulating sustainable, widely shared economic growth in these countries.

This paper is based on the discussion at a round table meeting of regional practitioners and experts, which occurred in June 2005. The findings, interpretations and conclusions expressed in this paper are based on the discussion at this round table, and from a subsequent peer review process. They are not necessarily the views of any single individual or organisation, including AusAID, the Pacific 2020 Steering Group, contributing authors, round table participants or the organisations they represent.

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SUMMARY

Aspirations for enhancing the contributions of fisheries to economic growth and poverty reduction are features of the development plans and policies of all members of the Pacific Islands Forum. Those aspirations include potential benefits from:

- > oceanic fisheries, particularly the sustainable use of the region's rich tuna resources
- > coastal fisheries, which remain critically important to food security and living standards, and
- > aquaculture, which is a source of food security, specialist exports and stocks.

The overall outlook is for a strengthening of trends towards sustainability.

The overall outlook to 2020 for fisheries in the Pacific islands region is for a strengthening of current trends towards sustainability, achieved by increasing values rather than volumes of harvests from wild stocks, increasing the share of benefits from fisheries enjoyed by Pacific island communities, and enhancing fisheries benefits from wild stocks by increased farming activities.

Major constraints to securing greater gains from fisheries include weaknesses in national governance relating to both fisheries policies and the broader socioeconomic environment, gaps in regional fisheries governance, inadequacies in information, knowledge and understanding, limits in private sector capacities, a lack of infrastructure, poor market access, weaknesses in institutional and human resource capacity, relatively high risks for investors, increasing environmental concerns about the impact of fishing and threats from illegal fishing.

Take practical policy actions to increase the contribution of fisheries to development.

This paper puts forward five practical policy actions for increasing the contribution of fisheries to economic growth and poverty reduction in the period to 2020:

- > improve transparency in fisheries decision-making
- > strengthen private sector institutional arrangements and government–stakeholder consultation
- > improve coastal fisheries management through community involvement
- > explore innovative ways to secure more benefits from access to fishery resources, and
- > establish mentoring or partnerships to develop entrepreneurs and business management skills.

INTRODUCTION

To enhance the contribution of fisheries to economic growth and sustainable development in the Pacific, Papua New Guinea and East Timor¹, steps need to be taken to identify opportunities for developing and investing in fisheries and to adopt practical policies for addressing these opportunities.

Fisheries in the Pacific have the potential to make a major contribution to sustainable development.

Overall, fisheries² in the Pacific have the potential to make a major contribution to regional economic growth and sustainable development. The potential of **oceanic fisheries** can be measured largely in terms of high value opportunities for top-down growth in formal employment, incomes, government revenue and export earnings that can generate a widespread reduction of poverty. The potential of **coastal fisheries** and **aquaculture** is more broad-based. It includes providing valuable income-earning opportunities for many families and communities for whom opportunities for cash income are relatively limited. But it also includes, through small scale and subsistence fisheries, wider contributions to food security and community life and to health and nutrition, which increases the capacities of individuals and communities to pursue the kinds of lives they value.

The relationship between the distribution of fisheries potential and poverty in the region adds significance to these contributions. Several of the countries with the greatest fishery potential are those with the lowest living standards, as measured by the UNDP human development index – for example, Kiribati, Tuvalu, Papua New Guinea and Solomon Islands.³

There is a great diversity in the opportunities and constraints across the region.

Enhancing growth and sustainable development from fisheries is a good prospect for all Pacific island countries, but there is a great diversity in the nature of the opportunities and constraints across the region. Some are common, and some are shared, particularly those that relate to shared tuna stocks and other highly migratory species. But factors such as economic and population size, the extent and status of fisheries resources, cultures, development progress and market access mean that the paths to sustainable development in fisheries will differ widely between countries.

¹ The situation of East Timor fisheries is different from the situations of the fisheries of Pacific island countries, and generally is not well covered by this paper.

² Fisheries covered in this paper include oceanic fisheries, mainly fisheries targeting tuna and related species, and small but locally important line fisheries for bottom fish; coastal fisheries for near shore and coral reef species, both for food and non-food uses; aquaculture; and tourism fisheries. There are no known significant sea-mount deep bottom trawl fisheries in the region although concerns over destructive fisheries practices has led to a prohibition of deep water trawling by Palau, for example.

³ See R Gillett, M McCoy, L Rodwell and J Tamate, *Tuna: a key economic resource in the Pacific islands*, A report prepared for the Asian Development Bank and Forum Fisheries Agency, Asian Development Bank, Manila, 2001 <<http://www.adb.org/Documents/Reports/Tuna/default.asp>>.

OUTLOOK FOR FISHERIES TO 2020⁴

More fishery activities will reach the sustainable limits.

The overall outlook for fisheries to 2020 in the Pacific islands region is that more fishery activities will come up against the sustainable limits of resources and in some cases will face increased constraints as near-shore environments degrade and populations expand. There will be a strengthening of current trends towards ensuring sustainability by increasing the value rather than the volume of harvests from wild stocks, increasing the share of benefits from fisheries enjoyed by Pacific island communities, and enhancing fishery benefits from wild stocks by increased farming activities. Concerns over the impact of fishing on species such as sharks and turtles and on ecosystems of special interest such as coral reefs and sea mounts will continue to increase.

This outlook is consistent with the Food and Agriculture Organization's global outlook for fisheries in which captured fisheries production is projected to stagnate, aquaculture production to increase, fish prices to rise, and exports from developing countries to increase against a backdrop of increased global concern about the sustainability of commercial catches and the ecosystems from which they are harvested.⁵

There appear to be important opportunities for economic gains.

Within this pattern of change, there appear to be important opportunities for economic gains for all Pacific island countries. But these gains will be put at risk if the conservation of fishery resources and aquatic ecosystems is not effective, and socioeconomic and environmental impacts on fisheries are not addressed.

The outlooks for the two major components of the fisheries sector follow.

OCEANIC FISHERIES

Oceanic fisheries are approaching sustainable limits for some species after decades of steady growth in catches. There is potential to expand skipjack and albacore catches, but at the risk of overfishing bigeye and yellowfin stocks and reducing catch rates for all species. As indicated in the Figure 1, overall catches in the Pacific islands region have been relatively stable but the tuna stocks continue to be subject to increasing fishing pressure in other parts of the western and central Pacific Ocean, particularly in Indonesia and the Philippines. Presently, the value⁶ of tuna catches in the western and central Pacific Ocean⁷ is estimated at around US\$2 billion⁸ before processing, with around US\$800–900 million taken in the waters of the Pacific island countries.⁹

⁴ The paper *The Pacific Cooperation Plan preliminary sector analysis, fisheries subsector*, FFA/SPC, 2004 <<http://www.spc.int/coastfish/Reports/HOF4/PDF/E-BP6-HOF4.pdf>> is the major source of information in this paper, particularly on coastal fisheries.

⁵ Food and Agriculture Organization, *The state of world fisheries and aquaculture 2004*.

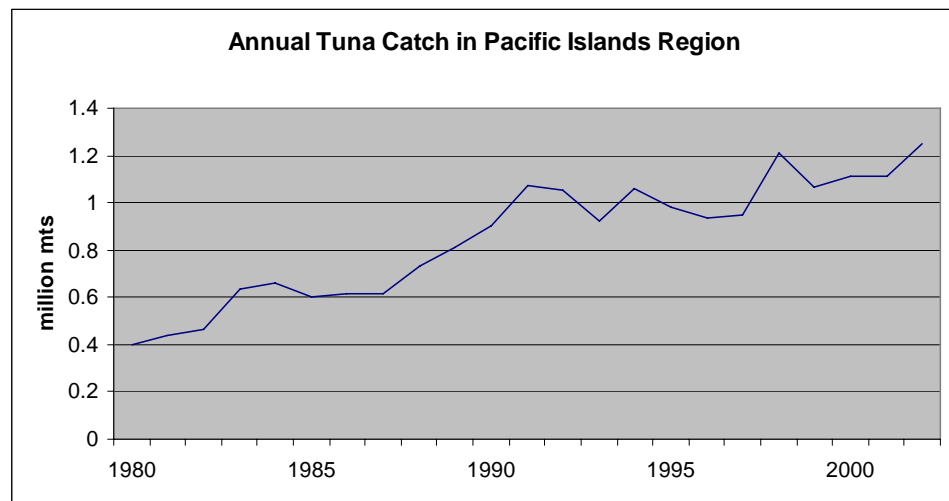
⁶ R Gillett and C Lightfoot, *The contribution of fisheries to the economies of Pacific island countries*, A report prepared for the Asian Development Bank, the Forum Fisheries Agency and the World Bank, Asian Development Bank, Manila, July 2002, <http://www.adb.org/Documents/Reports/Contribution_Fisheries_Pacific_Economies/default.asp>.

⁷ Includes Indonesia, the Philippines and non-Forum Pacific island territories.

⁸ At prices in regional ports.

⁹ Forum island member countries.

Figure 1



There are wide differences in the capacities of Pacific island countries to benefit from oceanic fisheries.

There are wide differences in the capacities of Pacific island countries to benefit from oceanic fisheries. Some have large zones supporting large offshore stocks, but face severe constraints in directly harvesting those resources. For these countries, arrangements to license foreign vessels, including vessels from other Pacific island countries, will continue to be important. Others have comparative advantages in infrastructure and market access, more competitive economies and stronger private sectors that encourage domestic and foreign investment in locally based fishing, processing and servicing ventures. They can be expected to pursue the broader economic benefits of domestic development.

Currently, most of the catch in the waters of Pacific island countries is still made by distant-water foreign vessels fishing under access licences, and landing their catches in foreign ports with little or no direct contact with Pacific island communities. However, an increasing share is being taken by vessels based in Pacific island countries, with the current value of their tuna catches estimated at around US\$300 million and growing. Value is added by processing plants in 10 of these countries.

Realising the potential gains from oceanic fisheries will depend on effective implementation of the Western and Central Pacific Fisheries Convention and other regional fisheries management arrangements that may develop in the future. The scope for future benefits from the region's tuna stocks will depend heavily on the extent to which arrangements can be implemented through the Western and Central Pacific Fisheries Commission (WCPFC) and by the Pacific island countries themselves to preserve the abundance of stocks in ways that strengthen rather than undermine the opportunities for sustainable fisheries development by these countries.

COASTAL FISHERIES

Although there are opportunities to increase the value of yields, the challenge is to maintain yields.

Coastal fisheries remain critically important to food security and community living standards across the region. Inshore stocks are generally regarded as not overfished, except for some stocks exploited for export (such as trochus and bêche-de-mer), and stocks near more densely populated areas. The value of coastal fishery catches for food was estimated at around US\$180 million in 1995, and the value of coastal fisheries for export products such as bêche-de-mer, aquarium fish, live reef food fish, pearls and pearl shell and corals was US\$50–80 million. However, these figures understate the value of coastal fisheries, especially to people living in outer island and rural coastal and riverine areas who depend on them for food or cash earnings. These people have few other opportunities to earn cash incomes to purchase food. Although there are opportunities to increase the value of yields from some coastal fisheries, the greater challenge is to maintain yields in the face of increasing local demand from growing island populations, the commercialisation of resources that traditionally have largely been harvested for local food supplies, and the degradation of reef, lagoon and coastal mangrove ecosystems.

Beyond the direct contributions to economic welfare, there are a range of economic, environmental and social impacts of fishery activities and relationships with other activities that affect the welfare of Pacific island communities and have become important policy issues. These issues include:

- > the socioeconomic impacts of commercial fisheries development,
- > the adverse effects of land-based activities on aquatic ecosystems and on fishery and aquaculture activities, and
- > the ecosystem effects of fishing on target and other species, and on the marine environment.

CORE CONSTRAINTS

WEAKNESSES IN NATIONAL GOVERNANCE

Good national governance is a key to improving the use of fishery stocks.

Weaknesses in national governance are a key constraint to improving the use of the region's fish stocks. A 2003 industrial fisheries development study by the Forum Fisheries Agency (FFA) and AusAID¹⁰ noted that most countries had made substantial progress in reducing inappropriate government involvement and protective policies. But it listed a range of governance-related constraints including policy instability, high taxation, slow immigration processes, investment insecurity, administrative blockages, corruption and poor dialogue between government and industry. In the governance of inshore fisheries, most government administrations

¹⁰ R Gillett, *Domestic tuna industry development in the Pacific Islands, the current situation and considerations for future development assistance*, FFA Report 03/01, Forum Fisheries Agency, 2003.

have struggled to adapt to approaches that require a move away from central regulation of inshore fisheries to greater local participation in fisheries management.

GAPS IN REGIONAL FISHERIES GOVERNANCE

Regional fisheries governance needs to put a premium on regional solidarity.

At the regional level of fisheries governance, there are well-established cooperative arrangements between members of the Pacific Islands Forum, especially through the FFA and the Secretariat of the Pacific Community (SPC). But cooperation between forum members and the major distant-water fishing states is much less developed. There has been no cooperative framework for regulating fishing in the high seas, and there has been no comprehensive mechanism for conserving stocks. The establishment of the Western and Central Pacific Fisheries Commission addresses these gaps, but it is in its earliest stages. In addition, while there has been very active official involvement in regional fisheries governance, and fishery issues are discussed by the Pacific leaders at every forum meeting, fishery ministers' involvement in regional fishery affairs has been ad hoc and infrequent. The 2005 forum directive to establish a process for ministerial oversight of regional fishery matters reflects the way in which the WCPFC has changed the regional landscape for oceanic fisheries, raising the stakes involved and putting a new premium on regional solidarity in fisheries.

INADEQUATE INFORMATION, KNOWLEDGE AND UNDERSTANDING

More work needs to be done on analysing the impacts of different policy measures.

There has been a very great improvement in available scientific information on the status of the major offshore stocks, and more recently concerted efforts have been started to better understand inshore stocks, largely through the work of the SPC. But relatively little work has been done on analysing the impacts of different policy measures to provide information for management decisions. Across the region, dialogue among stakeholders on how limits to oceanic fishing will affect national economies and how the limits will be applied is still in its earliest stages, and this constrains the speed at which conservation measures are being adopted. For inshore fisheries, there is a lack of understanding of how to maintain and strengthen, rather than undermine, traditional and community-based management systems. There is also a lack of documentation of long-term lessons learned from fishery development interventions.

LIMITED PRIVATE SECTOR CAPACITY

The capacity of the private sector is governing progress in fisheries development.

As most Pacific island countries move to develop domestic industries instead of licensing foreign fishers, it is the capacity of the private sector rather than the richness of fish resources that is governing the pattern of progress. In several countries good progress is being made with fisheries development led by the private sector, not only in the tuna fishery but in aquaculture, aquarium species and reef fisheries. But in other countries the private sector plays only a limited role in the economy as a whole, and it faces a greater difficulty in becoming involved in commercial fishing

businesses. Across the region the kind of entrepreneurial drive necessary for developing domestic medium and large-scale businesses in fishing, processing and servicing is generally weak and only slowly strengthening.

LACK OF INFRASTRUCTURE

Inadequate and poorly operated ports add to the costs of fishing.

Inadequate and poorly operated ports add to the costs of fishing. In particular, the lack of small boat harbours constrains the development of locally based fleets. Most countries also lack facilities for servicing vessels and have inadequate power and water supplies, requiring investors to install expensive facilities to supply services that their competitors in many countries take for granted.

POOR MARKET ACCESS

Infrastructure and market access are particularly binding constraints for several small countries with large potential.

For many Pacific island countries their great distances from major markets and the high costs and logistical difficulties of getting fish products to market are important constraints, particularly for rural and outer island communities. Difficulties with airfreight have been identified as a constraint in almost every country. Tariffs and non-tariff barriers to trade are less important for fisheries in most markets¹¹ than for some other sectors, but meeting seafood quality standards is a challenge (especially when some of those standards might be seen as artificially high) and there are particular challenges in meeting the requirements for trade in aquaculture and aquarium products, and live reef fish. The infrastructure and market access constraints are particularly severe for several small countries with large potential in fisheries – Kiribati, Nauru, Tuvalu and Niue.

INSTITUTIONAL AND HUMAN RESOURCE CAPACITY

The resources of fishery administrations have to be redirected and new capacities developed.

Fishery administrations are in a process of change across the region as their focus shifts from promoting harvest increases to ensuring sustainable fisheries. As increased harvesting puts pressures on resources and the broader impacts of fisheries attract more attention, the resources of fishery administrations have to be redirected and new capacities developed. For example, a 2004 SPC study found no Pacific island country had the capacity to fully comply with the expected data requirements of the WCPFC. Progress in improving that situation has been uneven and made harder by public service right-sizing programs in many countries. Some countries have undertaken radical restructuring, often with substantial donor support¹² and with varying success, others are moving more moderately, but some have yet to seriously begin the process.

¹¹ The sashimi market for high value tuna is one exception where non-tariff barriers continue to severely constrain Pacific island trade.

¹² Examples are Marshall Islands (ADB), Papua New Guinea (ADB), Samoa (AusAID) and Tonga (AusAID).

INVESTMENT RISKS

Fishing is regarded as a relatively risky business in any economic setting.

Fishing, especially offshore fishing, is regarded as a relatively risky business in any economic setting. Those risks are compounded in the tuna fisheries of the region. These fisheries are subject to large fluctuations in local fishing conditions, major shifts in the patterns of movement and abundance of the main tuna species, and changes in exchange rates and market conditions. They are also affected by the uncertainties and risks associated with weaknesses in fishery policies. These fisheries are also relatively vulnerable to cyclones and other dangers at sea.

ENVIRONMENTAL CONCERNS

The impact of fishing is a growing concern.

The environmental impact of fishing, including the impact on species of special interest and the broader ecosystem, are a growing concern and potentially important constraints on the development of fisheries in the region.

ILLEGAL FISHING

Countries can expect to face increasing pressure from illegal fishing.

Illegal fishing undermines efforts to conserve stocks, and reduces the economic value of fishery resources and the local benefits from resource access. In a region where marine resources are still relatively abundant compared with other oceanic regions, countries can expect to face increasing pressure from illegal fishing.

CORE OPPORTUNITIES

DEVELOPING DOMESTIC COMMERCIAL FISHERIES

The greatest potential for economic growth lies in developing locally based industries.

Most Pacific island countries have decided that the greatest potential for economic growth from commercial fisheries lies in developing some form of locally based domestic fishing, processing and vessel-servicing industries, and progress in this direction is accelerating.

For several years Samoa has been an outstanding example of real benefits flowing to a rewarding policy environment, with its tiny zone and valuable domestic fishing industry. Good progress is also being made with private sector-led development, despite some failed initiatives, in countries such as Cook Islands, Fiji, Marshall Islands, Papua New Guinea, Tonga and most recently Niue, not only in the tuna fishery, but also in some inshore fisheries. On the other hand, the collapse of the Solomon Islands domestic fishing industry in 2000 (and subsequent partial recovery) is a measure of the costs of deterioration in the national economic setting for fishery operations and investment.

Increase the emphasis on processing.

Approaches to expanding domestic fishery sectors vary, but generally involve encouraging a mix of domestic and foreign investment in boats, processing facilities and vessel-servicing operations, reflecting national patterns of comparative economic advantage. Increasingly, opportunities to increase incomes and create jobs are

associated with developing value-adding processing and marketing operations rather than with the primary catching activity, as shown in the high priority attached in the draft Pacific Plan to ‘maximising sustainable returns from fisheries through the development of proposals for value-adding activities’. In response, there has been a general shift in emphasis away from building fleets of national vessels (with male crews) towards establishing viable onshore processing operations (employing mainly women).

Adverse impacts require attention.

However, increasing contact between Pacific island communities and industrial fishing boats and their crews can lead to increased HIV/AIDS infection, prostitution, and broader impacts on culture and tradition. In addition, fishing by industrial vessels near shore can reduce the catch rates of small vessels, and fish from industrial vessels supplied to local markets can undermine the livelihoods of small-scale fishers and their families – though in the short-term households usually welcome supplies of lower priced fish from industrial vessels.

Take action to improve policymaking and increase the role of the private sector.

Actions that improve policymaking and strengthen the role and capacities of the private sector are priorities in accelerating the development of sustainable domestic commercial fisheries. Ensuring government fishery agencies engage with stakeholders, particularly from the private sector, is a key element in enhancing such development (see practical policy action 2). More broadly, private sector advances require institutional development of the form discussed when considering the constraints of fisheries governance. They require improvements in the enabling environment beyond fisheries to address the fundamental difficulty of developing efficient export-oriented businesses and creating jobs within national economic settings in island countries that are uncompetitive and inefficient. They also require new approaches to building skills for fishery businesses (see practical policy action 5).

Other actions necessary to promote domestic fisheries development include improving infrastructure and credit for fishery businesses (from microfinance to larger commercial credit facilities) and reviewing appropriate strategies for domestic fisheries development in each country and the subsidies received by foreign competitors. Improving the performance of Pacific island countries in international negotiations is a particular priority that could be served by training negotiators, providing improved technical assistance in these negotiating processes, and tying access negotiations to trade negotiations.

ENSURING THE SUSTAINABILITY OF COASTAL FISHERIES

Maintaining the health of coastal fisheries is a key to sustainable development.

In a region where everybody except people in the interior of some Melanesian islands live in coastal areas, fish and other products from the reefs, ponds, lagoons and near-shore waters are deeply woven into the fabric of everyday life. As a result, maintaining the health of coastal fisheries and ecosystems is a key element of the sustainable development strategies of the countries of the region. It is an aspect of sustainable development that is particularly important to women who not only harvest coastal

fishery resources but are also responsible for most of the processing, marketing and food preparation flowing from coastal fisheries.

Address overfishing at the local, national and regional levels.

Surveys of coastal fisheries highlight the twin problems of localised overfishing, especially near more highly populated areas and for species for cash export markets, and the ineffectiveness of responses to overfishing based on regulatory action by the central government. These issues need to be addressed at local, national and regional levels (see practical policy action 3). There is also a need for more research on issues such as fish and food security, coastal resources and sustainable livelihoods, and the role of closed or protected areas and customary resource management regimes to support the identification and adoption of improved strategies for managing coastal fisheries. Enhancing micro-financing facilities and extension services is important for strengthening income-generating capacities from coastal fishery resources.

IMPROVING FISHERIES GOVERNANCE

Good national fisheries governance – transparency, planning and stakeholder involvement

Improving national fisheries governance is a high priority. The issues and constraints associated with governance apply to both oceanic and coastal fisheries, as well as aquaculture. Increasing transparency is the number one area for action and some specific proposals are made on this issue (see practical policy action 1). Part of the problem is that many administrations do not have the right people with the right skills to support the shift in focus of fisheries policy from promoting fisheries to fisheries management. The few people with fishery and corporate management skills are heavily involved in regional fishery meetings and other activities that diminish their capacity to govern national fishery activities. Important ways to improve national fisheries governance involves preparing and implementing fishery management and development plans, and increasing the participation of stakeholders in fishery management and development processes.

Investment in the WCPFC is needed for sustainable use of the region's tuna resources.

At the regional level, the new WCPFC will require very large investments of funds, time, energy and good faith by Pacific island countries and the other participating countries over a long period to be effective in achieving the convention goal of sustainable use of the region's tuna resources. There are two key areas of investment required to make the WCPFC effective. The first is in developing science programs (including tagging, database development, stock assessment and ecosystem modelling) and compliance programs (including observers and a satellite-based vessel-monitoring system). The second is in providing support to Pacific island countries to enable them to implement the convention effectively. This includes both reforming and strengthening their national fishery management policies and programs, and providing technical assistance and training to enable countries, especially the smaller island countries, to participate effectively in the work of the WCPFC. These efforts can be expected to be a major focus of Pacific island countries for the whole of the period to 2020. It will also be important that Pacific island countries have capacity to

participate effectively in the development of other regional fisheries management arrangements, including that proposed for non-migratory species in the South Pacific.

INCREASING THE BENEFITS FROM LICENSING FOREIGN DISTANT WATER VESSELS

Access fees are important for a small number of countries.

Currently, access fees return US\$60–70 million to the region each year. Over 95 per cent of the total is earned by six countries, and earnings by individual countries fluctuate greatly. The establishment of the WCPFC profoundly changes the setting for licensing, and there is an opportunity to look at innovative approaches (see practical policy action 4). There is a need for greater cooperation between countries, including greater transparency and sharing of information as a basis for collective action. Decision-makers need to be better informed about access rights and other policy issues, including the range of returns from different licensing arrangements. A welcome step in this direction is the recent decision to establish ministerial oversight of fisheries through annual meetings of fishery ministers. Ministers should be provided with information on the strategic choices open to countries in the way they manage and develop their fishery resources.

Consider the advantages of regional and subregional arrangements.

Whether access arrangements should have a more subregional than regional focus is subject to continuing debate. Arrangements covering the whole region should provide Pacific island countries with a stronger position in negotiations, but there are also advantages to arrangements between subregional groups of countries with closer common interests. To date, most progress has been made in subregional cooperation in managing foreign purse-seine fishing and there should be support for further development of existing purse-seine management arrangements such as the Palau arrangement. The value of longline fisheries warrants action to develop cooperative arrangements for longline management, recognising that the leverage Pacific island countries can apply to longline management is less than for purse-seining because longlining is predominantly undertaken in the high seas.

INCREASING THE CAPACITIES OF LOCAL PEOPLE

A strategy to develop the capacities of local people will support fisheries investment.

Any pay-off from investing in fisheries depends on investments in building Pacific islanders' capacity in fisheries. A logical approach would be to develop a strategy to develop human resources for Pacific fisheries, based on a diagnosis of needs and skills required. It could also be based on a review of regional educational institutions and Australian scholarships, trends in people movements, and strategies to retain the skills and experience of trained personnel. Elements of an appropriate training package could include workplace training, leadership development, inshore management schemes and community involvement, staff exchanges, and training in trade and negotiation skills and fisheries management using a competency-based training approach. Long-term tertiary-level training, and the training of trainers based in the region, remain important priorities.

Past efforts to develop and implement such strategies have had mixed success. Progress in capacity building has been patchy, with gains in some skills and disciplines and failures in others. Overemphasis on public sector training has contributed to the capacity shortfalls, and there is a need to shift some of the emphasis in training and capacity towards community and private sector training (see practical policy action 5).

OTHER OPPORTUNITIES

Other opportunities for enhancing contributions to economic growth from sustainable fisheries include combating illegal fishing, investing in aquaculture and tourism-related fisheries, and applying the ecosystem approach in fisheries.

Increase investment in combating illegal fishing and other illegal activities.

Combating illegal fishing is one area that needs further attention. There is uncertainty about the current level of illegal fishing and the threat to economic growth that it represents both to coastal and oceanic fisheries. Substantial investments have been made in fisheries compliance at the national level and regionally through the Pacific Patrol Boat Programme, the coordinated aerial surveillance programs of Australia, France, New Zealand and the United States, and the FFA Vessel Monitoring System and related programs.

The FFA will be undertaking work to estimate the level of illegal fishing and its impact. This work will provide a basis for considering further investment in fisheries and marine compliance, recognising that this will be large. The potential involvement of fishing vessels in other illegal activities strengthens the case for increasing investment in marine surveillance, compliance and enforcement. The establishment of the WCPFC provides important new opportunities for combating illegal fishing.

Address the uncertainties about investing in aquaculture.

There is also uncertainty and a divergence of views about the potential of aquaculture. Currently, the economic contribution of aquaculture is relatively small, with the exception of black pearls. There is the potential to increase its contribution through better methods of farming pearls (based on the success of Cook Islands) and seaweed (based on the success of Kiribati), more subsistence aquaculture, and farming marine organisms for specialist markets such as aquarium species and for enhancing over-exploited wild stocks.

There is growing confidence in the region that investment in aquaculture will pay off, but there are uncertainties about the scale and pace of gains from aquaculture associated with uncertainties about environmental impacts and the long-term economic viability. If aquaculture is to expand, national frameworks for sustainable aquaculture and regional cooperation in biosecurity and quarantine will need to improve. Most of the specific policy actions proposed in this paper apply to aquaculture as well as to coastal and offshore fisheries.

Carefully manage tourism based on recreational fishing and the environment.

The development of diving, charter and other recreational fishing, and other forms of fish, reef and lagoon-related holiday activities would support regional tourism that has enjoyment of the distinctive environment and natural resources of the Pacific islands as one of its key elements. These activities are particularly important for many ecotourism ventures, but require careful management to ensure sustainable community-level gains and to reconcile increasing competition for access to and control over, marine ecosystems, space and resources.

Apply the ecosystem approach to fishery development.

As members of the global community, Pacific island countries committed themselves in the 2004 Plan of Implementation of the World Summit on Sustainable Development to applying the ecosystem approach in fisheries by 2010 at local, national, regional and international levels. Further work is now needed to implement this commitment in the region. Environmental considerations play a central role in all fishery development policy and planning, whether these are related to coastal fisheries, offshore fisheries or aquaculture. These considerations include sustainably using target resources, minimising the impact of fishing on non-target species, protecting marine habitats from the effects of fishing and other marine and land-based activities, preventing marine pollution from fisheries, protecting biodiversity, and assessing the effects of broader environmental change on fisheries, including global warming.

Successful adoption of ecosystem based fisheries management will reduce the risk of stock collapse. It should provide in the longer term a higher and more stable flow of economic and other benefits from fisheries resources and maintain ecosystem services.

PRACTICAL POLICY ACTIONS

Five practical policy actions have been identified as priorities among a wide range of possible policy options for enhancing the contribution of fisheries to economic growth and sustainable development.

1 IMPROVE TRANSPARENCY IN FISHERIES DECISION-MAKING

Address corruption by formalising licensing processes.

Recent cases of corruption and continuing expressions of concern from representatives of the fishing industry in the region about the integrity of decisions related to the granting of licences point to the need for greater transparency in fisheries decision-making. These concerns apply in particular to decisions on who should be allocated licences and who should be excluded, the conditions attached to licences, and decisions on fee levels, especially for foreign vessels. Change to enhance transparency should involve legal and administrative reforms to codify and formalise licensing processes. This should include broadening the responsibilities for licensing and setting fees and other conditions that involve agencies such as financial and legal authorities so that the responsibilities do not lie with a single minister or senior

official. Licensing details should also be publicly disclosed so that decisions on whom licences are granted to, and the terms and conditions of licences, can be subject to public scrutiny.

Engage in more open dialogue about access.

At a regional level too, there is too much secrecy. Pacific island countries would be better served by sharing information, not concealing it from each other, so that all countries are better informed in dealing with foreign fishing partners, and there can be more open dialogue about access arrangements as a basis for more cooperative and collective action. Regional organisations, particularly the FFA, are the obvious focus for an effort to improve transparency through information sharing between countries. One way to start a formal debate on the issue in the region would be for the FFA to present a paper on transparency in fisheries decision-making to the new annual ministerial session of the Forum Fisheries Committee. The paper could include specific proposals for legal and institutional changes to increase transparency in fisheries decision-making. This initiative should be seen as supporting the draft Pacific Plan call for a proposal on 'harmonized transparent terms and conditions' for fishing to be presented to the forum.

2 STRENGTHEN PRIVATE SECTOR INSTITUTIONAL ARRANGEMENTS AND GOVERNMENT-STAKEHOLDER CONSULTATION

Enhance private sector participation.

In most Pacific island countries fishery management processes over the past two to three decades have been very concentrated within the fishery administrations, without generally providing in a structured way for dialogue and consultation with other stakeholders including the private sector, and often without any strong role even for other government agencies. Over the past 10 years, as domestic fishery sectors and businesses have developed there have been greater efforts to engage the private sector by establishing consultative fishery management processes, but in most countries these are still inadequate and, in some cases, virtually non-existent. Improved arrangements might take the form of industry groups within national chambers of commerce, or separate associations. A recent initiative at the regional level was the establishment in 2005 of the Pacific Islands Tuna Industry Association to represent national tuna industry associations.

Investing in institutional arrangements among private sector interests and in arrangements for dialogue and consultation between government and non-government stakeholders, particularly the private sector, would target a number of areas requiring improvement. First, it would improve the overall climate for investment in fisheries. Second, it would contribute more directly to improving the national management of fisheries, both inshore and coastal. Third, it would increase the effectiveness of national delegations in regional and international forums, particularly the WCPFC. Papua New Guinea seems to be an outstanding case where enhanced organisation by the private sector itself with government support has enabled vigorous participation by PNG

private interests in the WCPFC process, benefiting not only Papua New Guinea but also the collective stance of Pacific island countries.

But who pays? Improvements in this direction require a range of commitments from fishery business interests, governments and donors and other regional and international agencies. The most important of these is the commitment from fishery businesses themselves to provide the necessary time, energy and cash to form and support appropriate institutional arrangements, recognising that this is particularly challenging for smaller, newer Pacific island businesses. Government encouragement and support is also essential. And the strong interest of donors and other agencies in having representatives of national associations and of the new regional tuna industry association contribute to their own programs provides a measure of the value of private sector organisations to donors and other regional and international organisations. The question is how far governments and donors should go in providing direct support to formalising private sector institutional arrangements. It is one thing to assist industry organisations to get established, but creating private sector institutions that depend on government or donor funding is self-defeating.

3 IMPROVE COASTAL FISHERIES MANAGEMENT THROUGH COMMUNITY INVOLVEMENT

Engage communities. In general, improvements in coastal fisheries management target the imperative of maintaining the contribution of inshore fisheries to food and nutrition, as well as the careful exploitation of opportunities to maintain and, where possible, increase incomes from commercially harvesting the resources of inshore fisheries for domestic food supplies or for specialist export markets.

There are opportunities for addressing coastal fishery management problems at three levels – local, national and regional. It is now accepted that real gains can be made from strengthening management functions and capacities at only a local level. This involves preserving and strengthening traditional management systems, including customary systems of marine tenure where these still exist, and creating or strengthening alternative community-based management systems elsewhere. However, for community-based fisheries management to be successful, it needs to be embodied in a comprehensive national strategy, because such management needs outside information and support, and usually needs change to national laws, policies and institutions.

Share ideas and experiences, and pool resources. Across the region, there are recognised successes in improving coastal fisheries management. Fiji's legal recognition of community fishing rights is probably the most comprehensive in the world, and Samoa's Community Fisheries Programme, developed with Australia's support, has become a model globally. Although there is no single solution that fits all countries, much can be gained from sharing experiences and pooling resources. This is particularly the case in assessing the status and prospects of reef fisheries, applying legal structures that devolve fisheries management authority, and developing strategies for governments to support

traditional resource management and build community capacities for effective marine resource management. There is particular value in regional cooperation to ensure that countries and communities can respond quickly to what are often fast-developing new inshore fishery developments such as exports for aquariums and of live reef fish species for food. Such cooperation is important both in terms of applying appropriate conservation management strategies and ensuring that resource owners secure fair value for products from their stocks.

4 EXPLORE INNOVATIVE WAYS TO SECURE MORE BENEFITS FROM ACCESS TO FISHERY RESOURCES

Take advantage of the expected fishing limits and assume greater control of access.

The establishment of the WCPFC has deeply changed the outlook for managing and developing the region's tuna resources, and for relations between Pacific island countries and fishing states. The timing seems favourable for some bold, innovative approaches. Two features of the new arrangements stand out. The first is the expectation that fishing limits to ensure ecological sustainability will be applied. These limits will make access rights to the resources more valuable. The second is the expectation that the control of access to resources will be strengthened rather than weakened by the WCPFC, particularly if it leads to substantial allocations of long-term fishing rights to Pacific island countries and to limits to fishing in the high seas.

These expectations are already contributing to a more positive environment for earning licence fees, and are driving new investment, especially in onshore processing in Pacific island countries, and in vessels linked to those onshore processing plants. For some countries, this situation provides an enhanced opportunity to use access to resources to leverage or otherwise encourage investment in processing and marketing, or vessel servicing. For others, it provides opportunities to earn higher fees. In both cases, there will be opportunities for countries to use the new situation to grant longer term, more secure, more valuable access rights.

Develop strategic alliances for increasing the value of access.

Countries can increase their returns further by collaborating more closely to harmonise fees or provide access to a wider area for a single licence, to work together in processing and marketing supplies from the region to world markets, and to tie access to trade opportunities. A further opportunity for increasing benefits lies in getting away from the current practice of licensing whole foreign fleets under access agreements, and instead dealing with individual boat-owning companies, making them compete against each other by using, for example, tendering and auctioning processes.

New strategic alliances will be a feature of strategies to increase benefits from access, both with foreign fleets and between Pacific island countries themselves. The less efficient fleets of Japan, Korea and the United States are in decline, being replaced by the fleets of China, Taiwan and the European Union, and the growing domestic fleets. The success of the newcomers is due in part at least to their greater

responsiveness to the development aspirations of the Pacific island countries, creating a wider choice of development partners and projects.

There are also opportunities for Pacific countries to create new alliances relating to access between themselves. Fiji has for a long time promoted mutually beneficial arrangements with neighbouring states based around processing operations in Fiji and access to Fiji's ports and transport services to export markets. More recently, Cook Islands, Niue, Samoa and Vanuatu have been involved in joint fishing and processing activities, and the recent fluctuations in the longline fishery in that area have underscored the need for domestic vessels in that subregion to have access to wider areas of fishing grounds to survive. In the tropical subregion, the Federated States of Micronesia, Kiribati, Papua New Guinea and Marshall Islands have been able to secure development gains from the FSM Arrangement, and agreement that provides mutual access for purse-seine vessels to each other's waters.

5 ESTABLISH MENTORING OR PARTNERSHIPS TO DEVELOP ENTREPRENEURS AND BUSINESS MANAGEMENT SKILLS

Adopt a bottom-up process to strengthen entrepreneurial capacity and build skills in the private sector.

The lack of capacity in the private sector is a key constraint on economic growth across all sectors in the Pacific island countries. Proposed responses typically centre on essential policy reforms including reducing the role of state-owned enterprises, reducing undesirably high levels of regulation, strengthening financial markets and improving consultative processes. These essentially top-down measures need to be complemented by a bottom-up process to strengthen entrepreneurial capacity and build business management and technical skills. Such a process would seek to empower Pacific islanders to participate more fully and effectively in fishery businesses over the whole range of fishing, marketing and processing activities and from micro-scale to industrial-level operations. These bottom-up measures should target in particular women, small-scale fishers, current fishery business owners, and managers and indigenous entrepreneurs in other sectors who are potential investors in fisheries. Building the capacities of these people requires a new and different approach from the public sector-focused approaches that have dominated past training programs. Regional organisations have already begun to give greater priority to training programs in areas such as fish handling and small fishing business management and economic assessment.

Training opportunities for the private sector

Within an approach to training that is more private sector oriented, there should be a particular focus on mentoring or partnerships aimed at developing entrepreneurs and building fishery management and technical skills. Areas of need in which mentoring can be used include enterprise-based training for supervisory fishing or fish-handling staff, business management personnel, operations managers with managerial and sales ability, buyers for larger fishing and processing enterprises, food science personnel, and managers with a sense of enterprise. This kind of training takes time. The range of inputs needed includes:

- > technical/vocational and university-level education, covering numeracy and literacy, with basic accounting or management training associated with technical fishing and processing experience
- > links with the business and commercial sectors of state and regional organisations and with private sector fishing, processing and marketing enterprises prepared to be part of a mentoring package, and
- > two-way exchanges between island fishery businesses and businesses and institutions in other countries, particularly Australia, New Zealand and island countries such as Fiji with more highly developed domestic industries.

DELIVERING THE MESSAGES

The analysis and proposals in this paper are designed for decision-makers at the national and regional levels in government, business, civil society and the donor community in accordance with the objectives of the Pacific 2020 process. Principally, the policy actions identified are targeted at decision-makers at the national level. An example is the need to move towards community-based management in coastal fisheries, and to engage the private sector more fully in planning for it to undertake value-adding domestic development in oceanic fisheries.

But implementing these ideas can be enhanced by sharing experience and pooling advisory services at the regional level. Other ideas such as adopting new approaches to securing benefits from foreign fleets will be more appropriately dealt with in subregional or regional arrangements or groups. Encouraging greater transparency in fisheries decision-making is another area that might be more effectively addressed, at least initially, through a regional initiative. The strength of the regional fishery programs¹³ provides opportunities to leverage new ideas into well-established structures for regional policy dialogue. The FFA and the SPC, and their various technical programs, provide ready-made vehicles for developing and disseminating new proposals; and the Forum Fisheries Committee, with its newly established annual ministerial sessions, and SPC Heads of Fisheries meetings provide abundant opportunities to secure high-level discussions.

¹³ Fisheries are second to education in the number of regional program personnel (around 100).