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SPECIAL MINISTERIAL EVENT ON FOOD SECURITY AND SUSTAINABLE DEVELOPMENT IN SMALL ISLAND DEVELOPING STATES

Friday, 18 November 2005

This paper introduces the vulnerability issues that are a common denominator of SIDS, affecting their food security and sustainable development. It summarizes discussions that have covered these subjects in international fora since SIDS were identified as a special group during the 1992 Earth Summit, up to the 2005 Mauritius International Meeting. It looks at the agricultural sector's responses, including FAO's, to the strategies and mandates that have emerged from those discussions. The paper recognizes the critical role of traditional commodities in SIDS economies and the impact of the changing international trade environment, especially in rural areas. It also acknowledges the contribution of indigenous institutions in developing resilient food systems. The paper specifically looks at issues of food security and sustainability in their relationship to resilience and vulnerability in SIDS. Action areas for sustainable food security are proposed for consideration, as part of FAO's umbrella framework for action in SIDS: the Regional Programmes for Food Security (RPFS).

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MANDATES

1. The current FAO Strategic Framework (2000-2015) identifies Small Island Developing States (SIDS) as a special group, deserving priority in its implementation programme. In 2003, the 32nd Session of the FAO Conference requested that a “Conference of SIDS be organized in Rome, in 2005, to further review the progress achieved in the implementation of the Programme of Action for the Sustainable Development of SIDS”.
2. In January 2005, the participants in the Mauritius International Meeting specifically urged “the 2005 FAO Conference of SIDS Ministers of Agriculture to consider endorsing priority actions for an enhanced contribution of agriculture, forestry and fisheries to SIDS sustainable development policies, in light of the importance of nutrition and food security needs to SIDS”.
3. This paper is in direct response to the United Nations General Assembly Resolution of July 2005¹, urging specialized agencies, among others, to take timely action to ensure the effective implementation of and follow-up to the Mauritius Declaration and the Mauritius Strategy for Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States.

INTRODUCTION

4. The 38 countries known collectively as SIDS² have in common their smallness and insularity which, often, also indicates their vulnerability. This structural vulnerability that affects their productivity, development and cooperation policies has brought special attention to SIDS in international fora.
5. **Environmental vulnerability.** Narrow natural resource bases, high interdependence of ecosystems where the entire island is one watershed, remoteness and a propensity for climatic disasters limit SIDS’ abilities to address their natural and anthropogenic hazards or to diversify their economic activities.
6. **Economic vulnerability.** Studies recognize a connection between small economic size and economic vulnerability. SIDS small national economies make them more reliant on trade and, thus, especially susceptible to external shocks.
7. **Social vulnerability.** SIDS react with social cohesion and flexibility in response to external shocks. Yet they still deal with a large degree of emigration and brain drain. Emigration does generate substantial remittances, but the small size of the remaining population limits development of specialized institutions and efficiency of capacity-building efforts.
8. **Food supply vulnerability.** Individual SIDS have very diverse economic profiles and levels of development, with some depending on agriculture, forestry and fisheries and others relying on other sectors such as tourism for their food security. Instability in agricultural production and exports and dependence on food imports in SIDS have led to vulnerability from factors often outside their control.
9. **The island paradox.** It is a seeming contradiction that, despite their presumed handicaps, small vulnerable countries have performed better than larger countries in the past two decades,

¹ Resolution A/59/L.63.

² These are the SIDS member countries of FAO: see list in Appendix 1.

indicating that insularity may be an opportunity for sustainable development. This paradox is being clarified through work on economic, ecological and social [vulnerability indices](#)³.

10. **The quest for resilience.** Distinguishing between inherent and self-inflicted vulnerability is an underlying issue in most international discussions and negotiations related to SIDS. This has direct implications in determining appropriate policies that would enable SIDS to overcome their vulnerability and increase their resilience.⁴ In any case, building resilience involves expenditures too high for small economies and the assistance of the international community is warranted.

INTERNATIONAL COMMITMENTS AND OUTCOMES RELATED TO SIDS

International commitments shaping SIDS sustainable development agenda

11. Since the establishment of Agenda 21 at the 1992 Earth Summit, a number of high level agreements have been drafted with specific reference to SIDS, indicating the international community's understanding of their need for differential treatment.⁵

12. Within these international debates, the importance of agriculture has had increasing visibility:

- Maputo Declaration, 2004: the importance of agricultural development for economic growth, overcoming poverty, improving livelihoods and economic growth;
- Monterrey Consensus in Financing and Development, 2002: the role of international trade for development, and
- Brussels Programme of Action for Least-Developed Countries, 2001: the need to build capacities in agricultural productivity and agro-industries and the need to improve access to safe and nutritious foods.

13. In addition, the Earth Summit Agenda 21 and its follow-up 2002 Johannesburg Plan of Implementation, and the 1994 Barbados Programme of Action and its follow-up 2005 Mauritius Implementation Strategy on Sustainable Development of SIDS all urged that environmental and sustainable development principles be recognized and integrated into all economic sectors.

14. The internationally agreed development goals, including those contained in the Millennium Declaration, provide the overarching framework for global poverty eradication and development support, including measures to address SIDS vulnerabilities and to build resilience.

Relevance of the Mauritius outcome to agriculture, forestry and fisheries

15. The International Meeting on the Further Implementation of the Barbados Programme of Action for Sustainable Development in SIDS, held in January 2005, issued the [Mauritius Declaration](#) and the [Mauritius Strategy](#) of Implementation.

16. The Strategy requests countries to incorporate guiding principles, national targets and indicators of sustainable development into all sectoral policies and strategies in order to respond to the development goals of the Millennium Declaration. The Declaration invites the United Nations and its specialized agencies to strengthen their support to the Mauritius Strategy through enhanced coherence and coordination.

³ Economic Vulnerability Index (Commonwealth Secretariat, 2004); Environmental Vulnerability Index (South Pacific Applied Geoscience Commission, 2004); Social Vulnerability Index (Caribbean Development and Cooperation Committee, ECLAC, 2004).

⁴ The Mauritius Strategy recommended the establishment of a task force to elaborate a SIDS Resilience Index, supported by the international community.

⁵ Details of these agreements are in Appendix 2.

17. The Strategy also makes recommendations of specific relevance to FAO's mandate. It requests that SIDS work with the international community to:

- promote agricultural competitiveness through the long-term development of efficient agricultural systems, diversification and value-added activities that ensure food security and self-reliance;
- address specific trade and development-related needs such as erosion of preferences and trade and food security;
- develop capacities on trade facilitation and niche marketing for agriculture, forestry and fisheries products and improve infrastructures related to sanitary and phytosanitary measures;
- strengthen technical and financial capabilities for the effective monitoring and control of fishing vessels and the sustainable management of fisheries, consistent with the FAO Code of Conduct for Responsible Fisheries, the High Seas Fishing Compliance Agreement and other regional efforts;
- address the synergistic linkages between tourism and agriculture for promoting island foods and beverage supply chains, rural hospitality and agrotourism;
- develop sustainable forest management actions, including partnerships and stakeholder participation, that safeguard the rights of forest resource owners, legitimate or licensed users;
- support the control of the primary pathways for potential invasive alien species and the development of local capacity to protect and efficiently use traditional knowledge in the conservation of indigenous species and their habitats.⁶

FAO responses

18. FAO subregional offices for SIDS. In 1996, FAO created subregional offices for the Caribbean and Pacific Regions to increase its capacity to support SIDS. These offices have served to increase the level of FAO assistance in SIDS through the multidisciplinary teams of technical experts based in these offices.

19. Plan of Action on Agriculture in SIDS. The 1999 Special Ministerial Conference on Agriculture in SIDS, convened in Rome as part of the follow-up to Barbados and the World Food Summit, adopted a Ministerial Declaration on Agriculture in SIDS. This led to the subsequent adoption of a [Plan of Action on Agriculture in SIDS](#) by the 116th Session of the FAO Council. The Plan of Action, which remains the fundamental framework for specific actions to support agriculture in SIDS at national, regional and international levels, targets five activities:

- adjusting to changes in the global trading environment;
- moving towards more intensified, diversified and sustainable agriculture;
- meeting fisheries needs;
- ensuring sustainable management of land, water and forestry resources and environmental protection, and
- enhancing capacity building and international strengthening.

20. A ten-year review of SIDS agriculture, forestry and fisheries. In preparation for the Mauritius International Meeting on SIDS, FAO reviewed progress made in SIDS' agricultural sectors since the 1994 Barbados meeting. The review, [Challenges and Emerging Issues in Agriculture, Forestry and Fisheries](#), looked at trends and identified FAO activities undertaken within the individual countries and across regions. The assessment showed that relative poverty, food-import dependency, nutrition-related diseases and environmental degradation of coastal forests and fish resources were increasing in SIDS.

⁶ For more details on the Mauritius process and FAO's involvement, see COFI/2005/INF18.

21. FAO contribution to the trade discussions in Mauritius and beyond. In view of the heated debates on trade and SIDS' sustainable development, FAO analysed [Agricultural Production and Trade, Preferences and Policy](#) in SIDS. The study set a baseline for evaluating the impact and potential responses to the WTO multilateral trading system on SIDS agriculture. This contribution resulted in the inclusion of "trade and food security" in the Mauritius Strategy's top ten issues of special concern for SIDS integration into the global economy. The challenges outlined in the study have become increasingly worrisome given the debate on the reform of the European Union Common Agricultural Policy on sugar, the outcomes of the dispute panels on sugar and bananas in the WTO and the stalled global and hemispheric negotiations. Since Mauritius, FAO has held trade policy workshops in both the Pacific and Caribbean islands and produced trade policy notes addressing specific issues related to SIDS, namely preferences and special and differential treatment.

22. Regional Programmes for Food Security in SIDS. The RPFS in the Caribbean and Pacific regions, launched by FAO in 2003 with the support of the Government of Italy, represent a paradigm shift in FAO's technical assistance - from *ad hoc* stand-alone projects to a programmed and strategic regional approach to food security. These regional programmes have two objectives: to increase productivity of small-scale farmers and to improve market access at regional and international levels. The strategic challenge of the regional approach is to establish a common policy and regulatory framework for the food supply, based on cooperation and exchange.

23. Towards expansion of the Regional Programmes for Food Security in SIDS. In mid-2005, Ministers of Agriculture of Pacific and Caribbean SIDS and CARICOM Heads of Government endorsed two concept notes supporting the expansion of the RPFS in the Caribbean and Pacific. The expanded programmes will address development constraints in the rural sector through investments in rehabilitation and construction of rural infrastructure such as water management, rural transportation, crop storage and processing. The programmes will also provide policy and technical assistance that addresses limitations in market access to food as well as disaster preparedness, management and mitigation.

24. Scaling up the RPFS will engage a broad range of ministries, civil society, private sector organizations and the donor community in activities to build synergies with other initiatives and ensure coherence with existing strategies such as national development frameworks, poverty reduction strategies and on-going activities aimed at achieving the MDG targets. In September 2005, the formulation exercise was launched, aimed at promoting investments in agriculture and scaling up the regional programmes for food security in the Caribbean and Pacific regions. Progress made in the preparation of National Medium-Term Investment Programmes, the formulation of a portfolio of Bankable Investment Project Profiles and the implementation process for scaling up the RPFS will be presented to SIDS on 18 November 2005.

SIDS responses

25. Caribbean. The Nineteenth Session of the CARICOM Council for Trade and Economic Development (Guyana, 11-12 May 2005) and a follow-up meeting of CARICOM Ministers for Agriculture (Guyana, 14 May 2005) noted that although the region is on a road to strong agricultural growth, progress has been slow. They recognized that agriculture has an important role in social stability, food security and regional integration through production and trade. The intention of CARICOM countries to engage more actively in the process of agricultural development in the region is reflected in the Heads of Governments adoption, during their 26th meeting in St. Lucia in July 2005, of a proposal for interventions "Strengthening Agriculture for Sustainable Growth and Development", known as the President Bharrat Jagdeo's Initiative.

This Initiative targets the repositioning of agriculture, no later than 2015, in a manner that significantly contributes to national and regional development and to economic, social and environmental sustainability and that enables the region (as a whole) to achieve an acceptable level of food security that is not easily disrupted by natural and/or man-made disasters. The

proposed interventions seek to work together with the Regional Transformation Programme for Agriculture that supports the convergence of policies across the CARICOM Member States and a common objective to move towards market-oriented, internationally competitive and environmentally sound production of agricultural products. The task of Ministers for Agriculture is to translate the priorities identified in this enabling environment into practical programmes and activities, including costed feasibility reports, specific interventions and workable implementation mechanisms. The expansion of the RPFS represents FAO's attempt to assist SIDS in this direction.

26. Pacific. The Sixth Meeting of South West Pacific Ministers for Agriculture (Rarotonga, Cook Islands, 1-3 June 2005) recognized that the multidimensional nature of food security requires the participation of other relevant ministries in efforts to improve food security at both national and household levels. It recommended that studies be conducted to assess current national capacities for implementing international and regional agreements relating to agriculture, in order to identify constraints and build capacity to assess the implications of international and/or regional agreements before decisions are made. Further, the ministers agreed to review national strategies for sustainable agriculture and food security and strengthen dialogue among sectors to reflect commitments towards fulfillment of the MDGs.

SUSTAINABLE FOOD SECURITY ISSUES IN SIDS

Introduction

27. SIDS food security policies traditionally have followed two models but each has a constraint: export-led growth where competitiveness is hindered by remoteness, and import substitution where options are limited by smallness. Neither option provides a clear solution and, in fact, several countries have switched between the two. The most successful countries have had a mix of good policy at national levels and preferences in the international trading environment. In rapidly changing economic, social and ecological environments, SIDS need to identify their best options for long-term food security in order to direct national investments and international assistance.

28. Food security must meet three main criteria:

- food availability – depends on domestic food production or food importation, with vulnerability to, respectively, macro-economic factors or natural disasters;
- food access – depends on the availability of income to purchase food or availability of land and water to produce food;
- food utilization – depends on affluence or poverty and can result in, respectively, over-nutrition or under-nutrition.

29. Yet, even when all of these are met, it does not guarantee that food security will be sustainable. Most SIDS can obtain sufficient food through domestic food production and imports, but their food security is still vulnerable because their national food production systems are subject to natural disturbances and food imports are subject to macroeconomic and market disturbances. Sustainability requires long-term food security and in SIDS, this means they need to establish food supply systems that mitigate risk and cope with stress.

30. Inherent vulnerability has led to the development of indigenous mitigation mechanisms in SIDS, ranging from traditional, risk-coping production systems to egalitarian property rights and customary tenurial systems as well as food preservation techniques (e.g. drying breadfruit to serve as a survival food), wild food reserves and other forms of mutual help organizations that can prevent acute temporary food insecurity induced by endemic natural disasters. However, population growth with its attendant per capita resource scarcity and modernization with its attendant material aspirations are dangerously eroding one of SIDS' most important components:

indigenous institutions. The challenge is to create the conditions for the survival and these institutions.

31. The following section looks at the criteria of food security and sustainability in relationship to resilience. It does not seek to list all priority issues for sustainable agriculture, forestry and fisheries in SIDS; these were identified in the FAO [Plan of Action on Agriculture](#). Rather, it stresses those issues that:

- emerged in Mauritius and the post-1999 international arena that concern the relationship between food security and sustainable development;
- build on lessons from the field and identify areas not yet considered in the RPFS in the Caribbean and Pacific regions or the concept notes guiding their expansion.

Food availability

32. Towards economic resilience. SIDS that rely on domestic food production, such as those in the Pacific, show little evidence of chronic food shortage because they can depend on the adaptive strength of their agricultural sectors. SIDS that rely on agricultural trade, such as those in the Caribbean, experience food shortages when shipping links are disrupted (e.g. after September 11). The fact that more than half of SIDS are considered Net Food Importing Developing Countries indicates food supply dependence and vulnerability, with many SIDS paying high import food bills despite their potential to produce their own food. This excessive dependence on food imports affects availability. Food import costs increase in proportion to total export earnings, low domestic production and productivity levels, and the inefficiencies of input and output markets. Economic governance in food security requires public-private partnerships to enhance the efficiency and competitiveness of agriculture, forestry and fishery enterprises.

33. *How can SIDS adapt to the new world trading environment?* The Doha Round of WTO trade negotiations, with its focus on regulations and rules governing national agricultural programmes and global commodity markets, has meant a greater need for compliance, monitoring and control to meet international standards related to food safety and plant and animal health. While opportunities have been created, there has also been a loss of benefits. Traditional market outlets for SIDS commodities have suffered from both price declines and increased competition. Policies that minimize the economic and social impacts of the new trading environment need to be formulated. This requires allocation of resources, development of negotiation skills and design of systems for institutional linkages, domestic investments and enhancing the export sector. With the Mauritius Strategy, the international community committed itself to support SIDS by delivering coordinated, effective and targeted trade-related technical assistance and capacity-building programmes. These programmes recognize the relationship between trade, environment and development and allow SIDS to take advantage of existing and future market access opportunities. Focusing attention on those trade and development issues would enable SIDS to integrate into the multilateral trading system in accordance with the Doha mandate on small economies while still recognizing the importance of long-standing preferences and giving high priority to addressing the issue of preference erosion.

34. *Can entrepreneurs be established in SIDS?* SIDS economies face major challenges as they seek to become more efficient in agricultural marketing activities. Understanding of domestic market constraints and obstacles in the regional and international arenas must precede development of private sector, market-driven agro and rural enterprises. There is a new role for rural entrepreneurs, but limited knowledge of investment procedures and a weak business environment are constraints to be addressed. More than government programmes, successful enterprises need multilevel and multisectoral strategic alliances, a stable macroeconomic climate (including access to finance for small enterprises), a technology development system, business partnerships and strong local institutions.

35. *What are the options for the diversification of agricultural produce?* Small economies with few resources, small populations and limited possibilities for exploiting economies of scale are

hindered by their inability to supply markets with adequate volumes of high quality products on a regular basis. To counter this, SIDS have the potential to exploit low volume and niche markets for value-added products including: traditional crops (e.g. spices, medicinal plants, essential oils, cocoa, coffee); non-traditional high value-added products (e.g. production of virgin coconut oil, coconut water for use as a sports drink); and organic and fair trade foods and beverages. Price premiums on organic products represent an alternative to revitalizing productions suffering from falling prices (e.g. coffee, bananas) and opportunities for applying Tariff Rate Quotas (TRQ) for certain export crops (e.g. organic sugar under the US specialty sugar TRQ). The challenge is to develop the human resources and skills for ensuring efficient production, processing, certification, distribution and marketing of products that require adherence to specific standards. Developing farming operations efficient enough to accomplish this will require training programmes on alternative production, storage and distribution techniques that meet safety standards and new food quality requirements (e.g. traceability) for specific markets (e.g. local and regional tourism, international organic and ethnic).

36. *What is needed for market development?* Targeting specific markets that match the production cycles and capacities of small economies is essential at both the supply and demand ends of the market. Opportunities abound in tourism, and in EU, US and Japan there are opportunities in organic and fair trade markets, but tapping these markets requires an integrated approach across the economic, social and ecology sectors. It also requires investing in processing and packaging systems for low volume agricultural products that can assure reliability of both quality and quantity. Intraregional trade, which consistently performs below expectations, would be helped with introduction of a regional fiscal incentive policy aimed at increasing consumption and production through such activities as locating agroprocessing industries in rural areas, developing market infrastructure, establishing information systems and setting up promotions.

Food access and utilization

37. *Towards social resilience.* Household food security in SIDS is based on two distinct systems. In rural systems, access to food via subsistence production is determined by access to natural resources (i.e. arable land and artisanal fishing grounds); in urban systems it is determined by purchasing power and heavily dependent on imported food. In both cases, poverty is prevalent. Improving access requires different strategies for urban and rural dwellers, especially in remote rural areas far from markets. In addition, both poor and affluent populations of SIDS have adopted dietary patterns that have had adverse affects on nutrition. They have rapidly moved from their traditional diets and adopted imported foods with the result of both under-nutrition or over-nutrition. Social governance requires reconciling competition for land and labour through linkages among economic sectors, namely agriculture and tourism, and the revitalization of healthy food systems.

38. *How can land tenure problems be addressed?* For centuries, indigenous food production systems, including egalitarian tenurial rights, have enabled SIDS to cope with their vulnerability. Although integrated, semi-subsistence farming and fishing systems are still present, the shift to commercial production is eroding access to land and water. Expansion of large, corporate-owned plantations has taken land and labour away from traditional farming activities. High population growth and less agricultural land per capita is reducing urban subsistence food gardens and traditional land transfer is becoming rare. The resulting decreased capacity of the poor to produce their food through subsistence farming threatens food security. Land tenure and management systems today tend to be largely inefficient and there is need to enlarge the knowledge base for participatory decision-making on future land use.

39. *How can rural households sustain their livelihoods?* Rural income generation at household and community levels has a strong impact on nutritional security. In the Pacific region, even where nutritious food is available, disadvantaged families often spend their time in low income activities (e.g. copra), leaving little time to prepare nutritious meals or they sell their vegetables in order to obtain income and procure other family needs and poor quality food. In both cases,

income is traded for good food. Households and agricultural enterprises require innovative livelihood approaches to escape poverty, remain profitable and cope with risk. Specific support should be given to enable vulnerable and poor groups to increase their levels of food security through better performing traditional food systems and other income generating activities. More viable rural areas would encourage youth to invest their labour in agriculture and contribute to their local communities.

40. What are the opportunities for agricultural linkages with tourism? SIDS rural areas have been increasingly abandoned due the lack of employment opportunities and viable rural sectors. The labour market increasingly drifts to urban areas, attracted by tourism and other service industries. In richer countries where agriculture offers employment, the labour force often consists of immigrants, with the local population seeking jobs with higher pay. The emerging worldwide trend of sustainable and responsible tourism is of particular significance to SIDS. Linking primary producers to emerging markets such as tourism can improve rural viability by providing income to farmers and fisher families through rural hospitality, agritourism, game fishing and manufacturing based on non-food agriculture products (e.g. flowers, handicrafts, agriwaste recycling). Supplying quality food and beverages to the tourism sector can improve agricultural returns and help the sector avoid costly imports. Setting up appropriate links between tourism and the agricultural sector by promoting island food and beverage supply chains, rural hospitality and agritourism supports local service providers as well as the agriculture and tourism sectors, and helps retain resources within the country.

41. Can malnutrition be reversed in SIDS? Despite a 5 percent decline in the ratio of undernourishment between 1991 and 2002, the proportion of undernourished people in SIDS remains high at 13 percent. Traditionally, SIDS nutritional security depended on local staples such as roots and tubers, bananas and breadfruits. Now, introduction of plantation systems has contributed to the decline of traditional crop production and increased dependence on imported foods. Imports of cheap (e.g. rice, wheat), low nutritional quality (e.g. turkey tails and mutton flaps) and convenience (e.g. ready-to-eat) foods compete with domestic foods (e.g. root crops) that have higher production costs and are less convenient to store and prepare. Poor eating habits cause nutrition-related diseases such as anaemia and iodine deficiency (especially among women and children), obesity, diabetes and cardio-vascular disease. In turn, these nutrition-related diseases impact sustainable development, accounting for half of the total health care expenditures in many of the Pacific SIDS. The contribution of traditional foods and eating habits to nutritional health could be enhanced through education, support to production and marketing processes and control of market distortions that impact food prices.

Sustainable food supply

42. Towards environmental resilience. The most serious food security concern in SIDS is long-term sustainability, especially at provincial and household levels. Conversion to commercial monocultures may increase farmers' incomes, but it also increases their vulnerability to natural disasters. Over-exploitation of land and water through intensive farming, fishing and deforestation not only degrades natural resources, it undermines traditional food systems that are essential for food security. Managing seasonal and unpredictable risks is a most important consideration in choosing farming systems. The ability to ensure that food production is not threatened in the face of adverse impacts of climate change and sea level rise remains a major priority for SIDS. Sustainable conservation and use of natural resources, improved nutrition and enhanced self-reliance require sharing responsibilities in natural resource use. Environmental governance can only be pursued through resilient food production systems.

43. What is the role of traditional food systems? Traditional, indigenous food systems have proven to be effective in mitigating disasters in risky farming environments. Small-scale traditional systems, including artisanal fisheries and non-grain starchy staples have been, and continue to be, the basis for household food security. The erosion of traditional cropping systems and of secure rights to land (including coastal land) have contributed to increasing poverty,

malnutrition and unsustainable urbanization. The contribution of small-scale enterprises to national development and poverty reduction ought to be recognized, with a view to allocating more resources in their support. The application of the FAO guidelines for “Increasing the Contribution of Small-Scale Fisheries to Poverty Alleviation and Food Security”⁷, with accompanying supportive policies and legislation can help build fishers’ capacities. Identifying and upgrading local skills and traditional knowledge with modern scientific guidance can offer cost-effective solutions for renewing traditional food systems.

44. *How to assure responsible fisheries?* SIDS remain highly dependent on marine resources, particularly for the sustainable livelihoods of coastal communities. Capture fisheries have increased but resource depletion and stagnant prices for some important species such as tuna threaten both food supply and national income. In particular, the growing problem of illegal, unreported and unregulated (IUU) fishing needs to be addressed through elaboration and implementation of national and regional plans of action, in accordance with the Code of Conduct for Responsible Fisheries and the International Plan of Action to combat IUU fishing. Regional efforts not only strengthen institutions, they allow the adoption and implementation of an ecosystem approach to fisheries. Regional initiatives to promote sustainable conservation and management of coastal and marine resources include, *inter alia*, the Pacific Islands Regional Ocean Policy, the Interregional Ocean Governance Initiative, and the designation of the Caribbean as a special area in the context of sustainable development.

45. *How to promote sustainable forest management?* Using the forest and the bush as national wild food reserves has enabled SIDS in the Pacific region to construct strong and resilient food security systems. Deforestation has meant loss of ecosystem protection as well as loss of wild foods (e.g. wild yams, fruits and nuts) which are resistant to many natural calamities. Conversion of forest lands has threatened sustainability of food security. The integrated management of agricultural lands, forests and trees outside forests to protect land, coastal areas, freshwater resources and biodiversity can increase resilience to storms and high tides.

46. *Can agricultural systems adapt to climate change?* Land use change for food production decreases the resilience of ecological systems and, hence, their ability to produce food. Traditional cropping systems that lessen the impact of cyclones are not as common today. Climate change will affect the ability of ecological systems to provide food sustainably, as fish and marine populations gradually shift into warmer conditions. Understanding the magnitude and impact of climate change on food provision and on the food security of various groups over time would help determine options for future adaptations. Supporting climate-friendly agricultural and forestry systems (e.g. plants tolerant to salinity and temperature), and designing information systems and land-use planning tools would help SIDS cope with climate variability and sea-level rise.

47. *What are the threats on biodiversity and biosecurity?* Changed eating habits in SIDS not only have affected nutritional health, they have added to the erosion of local ecosystems and biodiversity. Popular commercial crops, fruits and leafy vegetables are more vulnerable to pest and disease outbreaks than staple food crops. The impact of such biological disasters on agriculture and the general economy of Pacific SIDS has been said to be far worse than any physical disasters such as cyclones. This is compounded by an increasing number of invasive alien species in SIDS’ endemic biodiversity that harm the environment, human health and the economy. While it is necessary to control potential pathways of alien invasive species, it is also necessary to develop local capacity for assuring the equitable sharing of the benefits arising from the use of genetic resources.

⁷ Technical Guidelines for Responsible Fisheries, no. 10.

Integrated policy development

48. Towards sustainable food security. Within the context of increased vulnerability and competition for resources, the SIDS agriculture sector can no longer develop in isolation. Agricultural policies affect developments in the economic, social and environmental sectors. National sustainable development plans and strategies should include food security strategies and related measures to address vulnerability and build resilience. A coherent policy framework for sustainable development should be put in place that: recognizes the role of agriculture, fisheries and forestry in contributing to the overall economic growth; takes into account the linkages and interactions among the national macro-, sectoral and micro-level policies; and ensures integration of and consistency among national, regional and international commitments. At country level, integrated planning and management among sectors is necessary for building nationwide resilience. At regional level, linked institutions can pool resources and enhance efficiency. At international level, SIDS can establish the critical mass for voicing their interest and decreasing their vulnerability.

49. How to ensure national policy consistency? Institutional and policy reforms in SIDS require consistency in sectoral policies for the effective planning, management and monitoring of human and natural (marine, land and biodiversity) resources. They also must consider means for sharing resources as well as addressing the externalities of subsectoral policies in the agricultural sector. The impact of market liberalization and food imports on domestic production can be counterbalanced with policies that make locally produced food more competitive, for example, by developing marketing infrastructure or abolishing market distortions. National food security policies based on an analysis of inherent and structural weaknesses would support the establishment (through an iterative process) of strategies that consider the linkages and interactions among the various ecosystems and economic sectors. Holistic policy development requires understanding of the multiple roles of agriculture, forestry and fisheries in national development, including health, employment, trade balance and the environment. Cooperation (and realignment) of different departments within ministries of agriculture and among different ministries will be required to better manage and implement the multiple roles of agriculture in sustainable development.

50. How to enhance regional cooperation? SIDS' food security can be enhanced through partnerships among the island nations. Efficiency and competitiveness require regulatory frameworks that become cost-effective at regional level. Regional cooperation could address challenges such as food security policies, trade and investment promotion, research and development, capacity building and national adaptation strategies for climate change. In the Caribbean, regional agricultural and fisheries policies and plans could provide a framework for regional production and intra-regional trade, supporting intermodal shipping of fresh and chilled agricultural produce and creating regionally integrated industries (e.g. regional sugarcane industry, integrated cotton industry). In the Pacific, the difficulty of transport between islands limits regional efforts for joint agricultural research and education (e.g. SIDS University Consortium). However, discussions are being held for establishing a regional trading group under the Pacific Island Country Trade Agreement. The potential economic and social impacts of regional integration need to be evaluated, including the related regional and domestic measures needed for economic integration.

51. How to ensure international coherence? In implementing international agreements, SIDS need to ensure coherence between domestic policies and the extent to which international commitments are mainstreamed into national policy, including investment of human and financial resources. There is a need to understand the extent to which food security policies and international trading agreements (e.g. WTO Agreement on Agriculture, Agreement on Subsidies and Countervailing Duties, Sanitary and Phytosanitary, Technical Barriers to Trade, Convention on Climate Change, Convention on Biological Diversity, International Treaty on Plant Genetic

Resources for Food and Agriculture) are favourable to long-term sustainability, including the implications of these agreements at the micro, meso and macro levels.

SCALING UP FAO ACTION IN SIDS

52. Proposals for action, aimed at enhancing the contribution of the national and regional programmes for food security to the long-term sustainable development of SIDS, are presented in Appendix 3. The 12 action areas proposed are elements of a conceptual framework for sustainable food security.⁸

53. The RPFS in the Caribbean and Pacific regions are rooted in the national and regional development and agricultural sector strategies of SIDS and focus on increasing **food availability** through increased domestic production and enhanced agricultural trade. Given the increasingly demanding (and changing) global trade environment, particular attention is paid to integrated economic and trade policies, including negotiations on access to agricultural commodity markets and related standards and rules. It is proposed that activities targeting food availability can further increase competitiveness of the sector through agro-enterprise development to diversify agricultural commodity supply and develop markets for domestic produce. Proposals include the promotion of value-added commodity chains, organic agriculture and fair trade and synergistic linkages between agriculture and tourism. These activities require incentives and regulatory frameworks that encourage private sector' investment and improve the effectiveness of local institutions as well as measures that enable youth to engage in agriculture.

54. The expansion of the regional programmes strongly emphasizes **access issues** such as food safety nets and investments in infrastructure development, including water distribution technologies, storage and processing facilities and rural feeder roads. Considering that trade development entails building new roads that often result in increased human, plant and animal diseases⁹, a proportion of road construction funds should be used to anticipate diseases by providing for adaptive management and awareness interventions. It is proposed that specific consideration be given to land tenure and sustainable livelihoods by creating conditions that strengthen the capacities of vulnerable people to generate income and reduce their vulnerability to shocks (seasonal, market, natural disasters, etc.). With regards to **food utilization**, the expansion phase of the RPFS identified food quality and safety as being of prime importance for market development. It is also proposed to focus on nutrition security by improving knowledge on the contribution of traditional food systems to health, risk-coping strategies and self-reliance.

55. The RPFS expansion phase also foresees activities related to natural disasters and climate change preparedness, management, mitigation and rehabilitation, with adaptive measures in agriculture, coastal zones and water resources. With a view to strengthening **sustainability** of activities, namely through improving land, water and biodiversity management, it is proposed to emphasize traditional risk-coping strategies in the food supply chain, including cropping systems, responsible fisheries, sustainable forest management and adaptation to climate change.

56. Obviously, the various aspects of food availability, access, utilization and sustainability are components of a whole. **Sustainable food security** programmes must be based on improved capacity for national and international policy analysis and coherence. Enhancing the contribution of the agricultural sector to sustainable development requires integrating the policy, planning and

⁸ See graph on page 16.

⁹ Strong correlations have been established in Asia between highway construction and the spreading and distribution pattern of HIV/AIDS, avian flu and coconut beetles.

management of all relevant sectors, including agriculture, forestry, fisheries, rural development, health and tourism, with particular attention to their impact on sustainable environmental resilience and long-term capacity to sustain growth. Further, a biosecurity framework is proposed for addressing, holistically, market access, optimal use of limited resources, human, animal and plant health, and biodiversity. This would require developing synergies between various national ministries to minimize duplication and conflicting policy.

57. Proposals in Appendix 3 deemed important by SIDS could evolve into modules that:

- complement FAO's actions in SIDS which are not part of a RPFS in the Caribbean and Pacific regions;
- provide elements for the establishment of a RPFS for Indian Ocean SIDS;
- strengthen the focus of activities already identified for the expansion of the RPFS;
- integrate new action areas in the expanded RPFS.

CONCLUSION

58. FAO is committed to play its part in the global response needed for achieving the goals of the Mauritius Strategy and joins its sister UN agencies and all other development partners in addressing the challenges of SIDS' sustainable development.

59. SIDS Ministers for Agriculture are invited to consider the issues and action areas presented in this paper. Their deliberations and recommendations will be submitted to a Special Meeting of Heads of Government of SIDS that will convene at FAO's Rome headquarters on 23 November 2005 and to a donors' meeting in January 2006.

SMALL ISLAND DEVELOPING STATES MEMBERS OF FAO

Pacific	Caribbean	Atlantic, Indian Ocean and South China Seas
Cook Islands	Antigua-Barbuda	Cape Verde*
Fiji	Bahamas	Guinea-Bissau*
Kiribati*	Barbados	Sao Tome-Principe*
Marshall Islands	Belize	Maldives*
Micronesia (F.S. of)	Cuba	Mauritius
Nauru	Dominica	Comoros*
Niue	Dominican Republic	Seychelles
Palau	Grenada	Timor-Lesté*
Papua New Guinea	Guyana	
Samoa*	Haiti*	
Solomon Islands*	Jamaica	
Tonga	St. Kitts-Nevis	
Vanuatu*	St. Lucia	
Tuvalu*	St. Vincent-Grenadines	
	Suriname	
	Trinidad-Tobago	

Note: * indicates Least Developed Country.

APPENDIX 2

INTERNATIONAL COMMITMENTS SHAPING SIDS DEVELOPMENT

The Earth Summit (1992). The need to address SIDS issues in a holistic manner emerged during FAO's preparations for the Earth Summit. Therefore, an Inter-Regional Conference on Small Island Countries on Sustainable Development and Environment in Agriculture, Forestry and Fisheries was organized in Barbados, 7-10 April 1992. The Ministerial Declaration issued by this Conference, along with negotiations for the International Convention on Climate Change, led to the emergence of the SIDS country coalition and the Earth Summit's call for a specific SIDS Agenda 21.

The Barbados Programme of Action for Sustainable Development of SIDS (1994). The United Nations Global Conference on Sustainable Development of SIDS (25 April-6 May 1994) produced the Barbados Programme of Action for the Sustainable Development of SIDS (BPOA). The BPOA presents a basis for action in 14 agreed priority areas: climate change and sea level rise, natural and environmental disasters, management of wastes, coastal and marine resources, freshwater, land, energy, tourism, biodiversity, national institutions and administrative capacity, regional institutions and technical cooperation, transport and communication, science and technology and human resources development.

The Brussels Declaration and Programme of Action for LDCs (2001). The Third United Nations Conference on the Least Developed Countries (Belgium, 14-20 May 2001) adopted the Brussels Declaration and Programme of Action for LDCs for the Decade 2001-2010, which commits countries to supporting improvement of quality of life for people in LDCs (12 SIDS are LDCs). Specific reference is made to: building capacities to improve access to sufficient, nutritionally adequate and safe food; building productive capacities in agriculture and agro-industries, rural development and food security; enhancing the role of trade in development including diversification of commodities and regional trading agreements; and reducing vulnerability and protecting the environment.

The Doha Declaration and Work Programme (2001). The Doha Development Round adopted a Ministerial Declaration and Work Programme (14 November 2001) which recognizes the need to examine trade issues in small economies with a view to their fuller integration into the multilateral trading system (without creating a subcategory of WTO members). The agriculture section of the Work Programme "agrees that special and differential treatment for developing countries (especially for LDCs, vulnerable small, landlocked and island developing countries) shall be an integral part of all elements of the negotiations and shall be embodied in the schedules of concessions and commitments and as appropriate in the rules and disciplines to be negotiated, so as to be operationally effective and to enable developing countries to effectively take account of their development needs, including food security and rural development."

The Johannesburg Plan of Implementation (2002). The Johannesburg Plan of Implementation of the World Summit on Sustainable Development builds on achievements made since the Earth Summit and other outcomes of major conferences and international agreements since 1992. It recognizes that SIDS "are a special case both for environment and development" and calls for a full and comprehensive review of the implementation of the Barbados Programme of Action for the Sustainable Development of SIDS.

The Maputo Declaration (2004). The Fourth Summit of Heads of State and Government of the African, Caribbean and Pacific Group (Mozambique, 23-24 June 2004) adopted the Maputo Declaration which renews their commitment to agriculture and development in the following

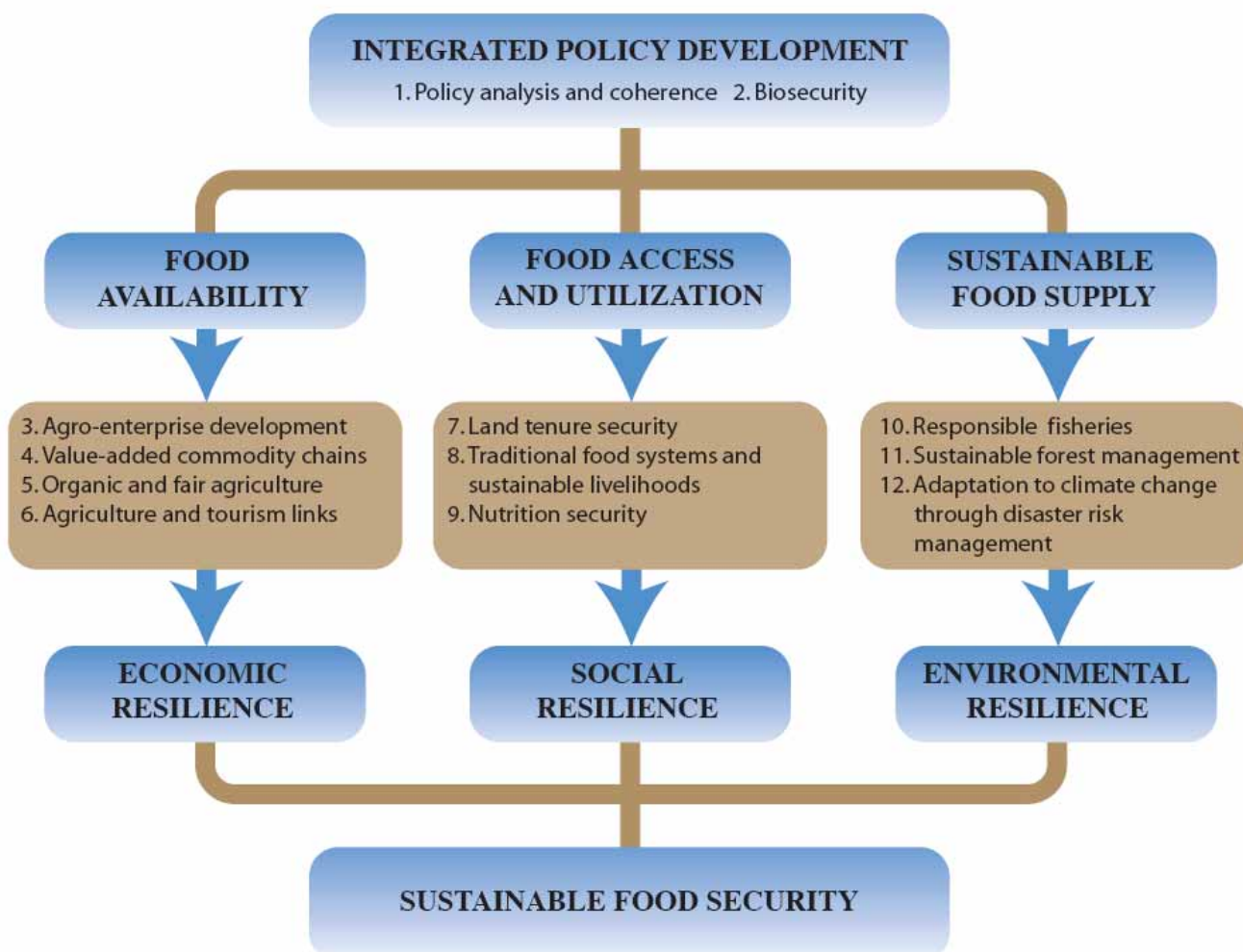
terms: “We fully recognize the fundamental importance of agricultural development to economic growth. Since agriculture is the main source of livelihood for the populations in ACP countries, poverty eradication and the elimination of hunger hinged upon agriculture development. We therefore commit ourselves to strengthen the development of agriculture and related value added activities, rural development and food security at national and regional levels. To this end, we support the formulation of appropriate programmes under the ACP-EC Development Cooperation Framework to include safety nets and maintenance of food reserves. We further call upon FAO and other partners to provide and/or increase technical and other forms of assistance. We also resolve to accord highest priority to investments in water control and management with a view to increasing agricultural productivity and ensuring a more stable agricultural output.”

The Mauritius Declaration and Strategy for the Further Implementation of the Barbados Programme of Action for Sustainable Development in SIDS (2005). The Mauritius International Meeting (10-14 January 2005) adopted the Mauritius Declaration and Mauritius Strategy for the Further Implementation of the Programme of Action for the Sustainable Development of SIDS. The Mauritius Declaration reiterates the vulnerability of SIDS and affirms the world’s commitment to support island states for their sustainable development. It further reaffirms that SIDS continue to be a “special case” for sustainable development and that particular attention should be given to building resilience in SIDS. The Mauritius Strategy identifies (in addition to the 14 priority areas of the BPOA) new and emerging issues which require urgent international attention. These are: graduation from LDC; globalization and trade liberalization; capacity development and education for sustainable development; sustainable production and consumption; national and regional enabling environments; health; knowledge management and culture.

APPENDIX 3

ACTION AREAS FOR SUSTAINABLE FOOD SECURITY IN SIDS

Conceptual framework for 12 thematic modules



Module 1

CAPACITY BUILDING FOR NATIONAL AND INTERNATIONAL POLICY ANALYSIS AND COHERENCE

Justification. In the context of the rapidly changing global and regional economic and trade environments, SIDS need to develop strategic policy responses to sustain food security and reduce poverty. The challenges include: increasing agricultural sector productivity, competitiveness and diversification, taking into account their special conditions as SIDS; developing coherent policies and programmes that enable SIDS to take advantage of new opportunities and cope with the possible economic, social and environmental risks; mobilizing financial resources for public and private sector programmes, and increasing development of human capital, especially for the formulation, implementation and monitoring of policies.

Substantial efforts have been undertaken by SIDS to address all of the above mentioned challenges with positive results in the last two decades, though with significant differences among the countries. Notwithstanding, the integration of a large number of SIDS countries into international and regional markets remains low.

The agricultural sector (including fisheries and forestry) plays a key role in the development of these countries through the provision of food, but also through less visible functions which can have longer lasting effects on the well-being of populations. These relate to poverty alleviation, food security, rural/urban population distribution and environmental resilience. However, these indirect contributions to welfare and their mechanisms are not well understood, seldom analysed in the context of development, and rarely reflected in national and rural development policy strategies.

Objective. The overall goal of this programme is to strengthen the capacity of the government and private sector in SIDS to analyse options for agricultural and sustainable development policy design, implementation and monitoring, and to evaluate policy proposals emerging from dialogue with international development agencies. It will be implemented by relevant regional and national institutions with the support of FAO's concerned technical divisions. The specific goals are to ensure coherence of international and regional commitments and domestic policies, and to strengthen the capacity of governments and the private sector to plan, manage and implement development policies in an integrated manner.

Approach. The objectives will be achieved through the following interventions:

- building understanding of the implications of multilateral commitments for domestic policies;
- mainstreaming international commitments into national policy frameworks;
- ensuring consistency between international commitments and domestic policies;
- identifying lessons from experience and making recommendations for enhanced policy and programme coherency.

An analytical framework for the studies will establish linkages among the regional-and international levels, the macro level (national, e.g. monetary and fiscal policies), the meso level (agricultural sector, e.g. domestic incentive systems and support policies), and the micro level (sub-sectors, e.g. commodity policies). Poverty, food security, sustainability, domestic supply and investment implications will be emphasized, as well as the role of indigenous cultures and traditions in politics, economics and social life. Strong cultural and social systems will be promoted as safety nets against absolute poverty, particularly among vulnerable groups.

Based on the above studies, a regional capacity-building programme emphasizing sustainability issues will be designed and implemented. Particular attention will be paid to trade, exchange rates and fiscal policies that influence producers' incentives. An integrated approach will emphasize

importance of linkages with other sectoral policies such as education, health and nutrition, infrastructure, environment, emergency preparedness and tourism, and the need to address trade-offs and externalities.

Target groups. National and regional high- and mid-level policy-makers and policy analysts, civil society and private sector leaders will be particularly targeted.

Expected outputs. Integrated policy development will result in:

- institutional analysis, including reviews of international, regional and national policies, programmes and projects affecting the primary sector development, to identify gaps and opportunities in the policy development process at the national, regional and international levels;
- policy analysis training materials;
- training courses on policy analysis and management for public officers and mid- and high-level decision-makers;
- networks promoting strategic alliances;
- coherent national agricultural and rural development strategies and policies;
- improved policy and planning at the national and regional levels.

Linkages. The programme will be implemented in synergy with the FAO RPFS and in coordination with other relevant programmes and projects related to regional integration.

Potential partners. Regional economic organizations, regional cooperation and training institutions, International Food and Policy Research Institute and the World Bank.

Potential funding sources. Regional donor agencies.

Module 2

BIOSECURITY FOR AGRICULTURE AND FOOD PRODUCTION

Justification. Biosecurity is a strategic and integrated approach that encompasses the policy and regulatory frameworks to analyse and manage risks in animal and plant life and health, food safety and biosafety. Biosecurity is emerging as one of the most pressing issues facing developed, developing and transition countries. Globalization, the increased movement of people, agricultural and food products across borders, greater attention to biodiversity and the environment, changes in the way food, plants and animals are produced, processed and distributed, uncertainties surrounding new technologies, as well as international legal obligations, are driving a growing interest in biosecurity and highlighting the threats posed by inadequate capacity to manage the various risks faced.

Biosecurity capacity – in areas such as scientific research and advice, inspection, enforcement, post-entry quarantine, surveillance and monitoring, information and communication, contingency planning and emergency preparedness – is essential to protect agricultural production systems, human, plant and animal health and consumer confidence in food products and the environment. Given the unique characteristics of SIDS, including their geographical isolation, there is an even greater need for a biosecurity framework to ensure and improve market access, make optimal use of limited resources, harmonize legislation and its implementation, and develop synergies among various national ministries to minimize duplication and conflicting policy. A biosecurity framework allows countries to address these issues in a holistic manner.

Objective. The objective is to strengthen the biosecurity capacity of the government and private sector in SIDS to prevent, control or eliminate risks to life and health and is a key element of sustainable agricultural development. It is essential that this be undertaken within the framework of a country's strategic needs and resources.

Approach. The objectives will be achieved through interventions such as:

- creating awareness of the biosecurity concept and its potential benefits to SIDS;
- providing biosecurity capacity assessment tools that will allow countries to undertake holistic assessments of national capacity, objective needs assessments, and develop national biosecurity strategic plans with clear national priorities;
- providing assistance in the areas of national legislation and regulations;
- providing training on, and participation in, information exchange within the biosecurity framework through the FAO interagency initiative, the [International Portal on Food Safety, Animal and Plant Health](#);
- establishing a national biosecurity risk analysis system appropriate to national objectives and resources (through the use of the FAO/WHO Risk Analysis Overview and Framework Manual);
- enhancing the effectiveness of existing surveillance, monitoring and inspection services in the areas of food safety, animal and plant health;
- establishing a system to minimize the likelihood of introducing alien invasive species and an appropriate management framework. In this regard, the International Plant Protection Convention (IPPC) plays a vital role in the trans-boundary movement of plants and plant products as well as the protection of cultivated plants and natural flora from direct and indirect damage; and
- providing support for research, development and technology transfer related to biosecurity.

In all cases, given resource constraints of SIDS, attention will be given to any possibility to foster regional collaboration for information sharing, and the cost-effective provision of biosecurity-related services.

Target group. Primarily policy-makers, food safety officers, plant health officers, animal health officers, civil society and industry in SIDS.

Expected outputs. Depending upon what is agreed among the implementing partners, outputs could include:

- a national biosecurity capacity assessment that results in a national Biosecurity Strategic Plan with clear national priorities;
- appropriate biosecurity seminars, training and workshops, with appropriate training materials for all stakeholders;
- improved market access through a sustainable and transparent national biosecurity system based on international norms;
- improved trust and cooperation with trading partners, minimizing technically unjustified trade barriers;
- enhanced national food safety, plant and animal health management programmes;
- improved protection of agriculture and environment from alien invasive species.

Linkages/Potential partners. International Plant Protection Convention (IPPC), World Trade Organization (WTO), United Nations Environment Programme (UNEP), Convention for Biodiversity (CBD), the World Organization for Animal Health (OIE), Codex Alimentarius, World Health Organization (WHO), Inter-American Institute for Cooperation on Agriculture (IICA), Regional Plant Protections Organizations, World Bank (WB), CARICOM, Caribbean Agricultural Health and Food Safety Agency (CAHFSA), Regional Economic Organizations, Secretariat of the Pacific Community (SPC).

Potential funding sources. Australia, Canada, Netherlands, New Zealand, Norway, USA, European Commission, World Bank, Standards and Trade Development Facility (STDF), IFAD, FAO projects, IGOs.

Module 3

PROMOTION OF AGRO-ENTERPRISE DEVELOPMENT

Justification. Improving entrepreneurship, trade and market development are key to creating income earning opportunities, raising livelihood standards and increasing economic growth in SIDS. The lack of entrepreneurs, limited knowledge of investment procedures, a weak business environment and weak public-private sector partnerships are some of the major constraints to development in SIDS. Thus, assistance in agribusiness enterprise development that simultaneously addresses goals of increased agricultural sector productivity, poverty reduction, environmental conservation and sustainable rural development is greatly needed.

Objective. The overall objective is to promote rural development and food security in SIDS through building entrepreneurship and business development capacity. The specific goal is to support the establishment of agribusiness centres (ABCs). The programmes will promote creative, informative and practical market-based business approaches. The focus will be on small and medium enterprises with emphasis on training entrepreneurs and creating an enabling environment that increases the chances of success.

Approach. The establishment of ABCs as a tool for addressing several areas of enterprise development has been successful in many countries during the past 30 years. In order to confront the current development challenge of increasingly competitive markets at the national, regional and international levels, vibrant, innovative and more dynamic ABCs with stronger private-public sector partnerships will be pursued. The concept of ABC is not new in SIDS. Many were introduced by the ministries of agriculture or development banks. In the early days, they were dominated by larger enterprises but during the economic crisis of early 1980s, their presence diminished. The approach is to revive this concept in a more supportive and dynamic context as follows:

- support the design of policies, investment programmes and strategies directed at small- and medium-scale enterprises;
- access finance for agribusiness enterprise development on concessional terms;
- design programmes and projects that are competitive but also contribute to poverty reduction and sustainable development;
- strengthen input supply and extension services for small- and medium-scale agro-enterprises;
- promote domestic and international partnerships at both production and marketing levels;
- develop and support the creation and strengthening of producer and marketing organizations;
- provide research, development and technology transfer, especially linked to entrepreneurial skills and enterprise development;
- establish support for market information, market development systems and trade;
- establish innovative risk management mechanisms to address vulnerability challenges;
- disseminate and support exchange of successful experiences on agribusiness development.

Target groups. Small- and medium-scale operations that produce and market commodities and services directly linked to rural areas and natural resources. Programmes will be tailored to village, national and international activities and markets.

Expected output. An enabling enterprise development policy and programme framework with established ABCs serving small- and medium-scale entrepreneurs in SIDS.

Linkages/Potential partners. Regional Programmes for Food Security, UNIDO, CTA and EU.

Potential funding sources. EU through EU-EPA agenda, CARIFORUM Agri-business Research and Training Fund.

Module 4

DEVELOPMENT OF A VALUE-ADDED COMMODITY CHAIN

Justification. To address the challenges of competitiveness and food security, SIDS have stated a priority interest in diversifying their agricultural economies and markets, especially in the agricultural sector, in order to increase food security and self-reliance. SIDS are committed to creating an enabling environment for enhancing agricultural productivity and diversification, food processing and product development, marketing and quality control.

Objective. It is proposed to stimulate agricultural growth and improve food security in SIDS through the application of post-harvest technologies in order to improve the competitiveness of fresh produce outputs and to develop and diversify the value-added product base. In addressing this goal, the project will contribute effectively to increased employment, poverty alleviation and nutrition in SIDS. To this end, the project will build the capacity of SIDS to:

- add value to, and diversify the use of, prioritized food crops, particularly those crops that contribute to food security and income generation;
- competitively market fresh produce and value-added products, particularly low-volume high-value products (e.g. spices, herbs, premium coffees) in a diversity of niche markets (local, regional, ethnic, seasonal, and tourism markets).

Approach. The programme will be planned with an integrated, commodity chain approach, based on the specific priorities and opportunities at the national and regional levels.

Target groups. Government departments, private enterprises, investors, and training and educational institutions.

Expected outputs. The proposed programme will produce the following:

- a range of value-added traditional food crop products, in particular the non-grain starchy staples (i.e. root crops, bananas, breadfruit);
- develop, adapt and disseminate technology models and packages that equip small farmers for efficient processing, packaging and marketing systems, consider the raw material base in SIDS, and meet the requirements of niche markets;
- introduce and implement quality management approaches (e.g. HACCP, GMP) in fresh produce chains to help assure the quality, safety and timely delivery of perishables such as fruits and vegetables and low-volume, high-value products such as spices;
- build capacity and develop human resources focusing on upgrading skills and technologies that will improve pre- and post-harvest management practices including chain integration, logistics, value-addition and marketing;
- upgrade knowledge- and information-sharing capacity and skills through networking and information exchange systems for post-harvest and value-addition.

Linkages/Potential partners. FAO's Global Post-Harvest Initiative, Regional Programmes for Food Security.

Potential funding sources: In-country and regional donor agencies.

Module 5

ORGANIC AGRICULTURE AND FAIR TRADE

Justification. Organic agriculture and fair trade agriculture (including crops, livestock, aquaculture and products harvested in the wild) offer strong opportunities for SIDS. They have a management approach this is inherently environmentally-friendly and similar to traditional practices. Market demand and consumer willingness to pay price premiums is economically attractive and indirectly rewards environmental stewardship. Especially in SIDS where quantities are small, competitiveness can be enhanced through quality products in lucrative markets, including the local and regional tourist markets (e.g. fresh food and beverages, island-made toiletries) and export markets for specific products (e.g. bananas, sugar, cocoa). If the right conditions are met, both traditional crops and new products (e.g. coconut oil soaps) offer opportunities for efficient production and marketing diversification.

Objective. In order to support organic or fair trade agriculture, capacities need to be built: farmers need to upgrade their traditional skills with better knowledge of ecological processes for managing soil fertility, pests and diseases; processors need to be aware of practices that ensure quality and safety in storing, processing and handling; technicians need to become credible inspectors and certifiers; partnerships with the private sector need to be established for marketing; and policy-makers need to establish the conducive framework for standards development, application and surveillance.

Approach. The legal and institutional base for the development of organic agriculture will be established at regional level while specific commodity chains will be promoted with selected farmers' groups at national level. Market development through public-private partnerships will target local, regional and international outlets.

Target groups: Farmers, fishers, foresters, processors, researchers, inspectors, extensionists, traders, policy-makers of SIDS will be targeted by this project.

Expected outputs. Income generation for small holders and environmental conservation will be improved by strengthened capacities for production, processing, certification and marketing of organic and fair trade products, food and non-food, including:

- regional organic standards, according to their specific environmental conditions and international trade requirements;
- regional inspection and certification capacity in organic agriculture and fair trade;
- regional organic laboratory capacities to analyse potential contaminants (e.g. pesticide residues, GMOs);
- training and extension curricula for best practices in organic management for selected product chains;
- appropriate storage and processing units that segregate organic lines within conventional facilities or in dedicated small-scale facilities;
- farmers, processors and field officers competent in producing, harvesting, processing and inspecting, in compliance with organic and/or fair trade standards;
- hotels and other tourist markets sourcing local food, beverages, toiletries and other manufactured items carrying local organic and/or fair trade labels;
- selected farmer groups engaged in trading relationships and implementing partnership agreements with importers;
- organic agriculture integrated in agriculture and rural development policies.

Linkages/potential partners. IFAD, International Federation of Organic Agriculture Movements (IFOAM), Pacific Island Forum, Inter-American Institute for Cooperation on Agriculture, CABI's Caribbean and Latin American Centre, CARDI, University of West Indies, University of the South Pacific, University of Mauritius, importers (e.g. EOSTA).

Potential funding sources. Australia, Italy, Japan, the Netherlands, UNCTAD.

Module 6

AGRICULTURE AND TOURISM LINKAGES

Justification. The tourism sector of many SIDS is highly dependent on food imports from developed countries. This is largely because of the inability of local producers to find a profitable and competitive way to meet the tourism industry's volume, quality, regularity and safety requirements for fresh produce and processed products. The potential for production of food and non-food items derived from agricultural materials (e.g. flowers, handicrafts and industry items such as woven place mats) for tourism companies and tourists themselves is largely untapped in many SIDS. With the 2005 Mauritius Strategy, SIDS expressed their commitment to create "synergistic linkages between tourism and the agricultural sector by promoting island foods and beverage supply chains." In addition, UN agencies are committed to providing support to SIDS in this endeavor. In order to respond effectively and to facilitate the achievement of this objective, FAO and the World Tourism Organization (WTO) propose to develop a collaborative programme for technical support and capacity building to foster, create or enhance agriculture-tourism linkages in SIDS.

Objective. To stimulate growth and economic development in SIDS by promoting linkages between the agricultural and tourism sectors. In addressing this goal, the project will seek to enhance the sustainability of agrifood systems, improve the quality of tourism services and contribute effectively to national priorities such as foreign exchange savings, increased employment, poverty alleviation and food security.

Approach. The programme is designed with a two-phase approach. Phase 1 serves as a diagnostic phase wherein constraints, potentials and institutional arrangements will be assessed at the national level as a basis for defining priority interventions and formulating priority components. Phase 2 will involve project implementation and monitoring. The project will:

- examine ways to maximize use of local raw materials in the productive chains of the tourism sector;
- promote the integration of local food and non-food agricultural products into the productive chains of the local tourism sector in order to enhance the marketing of safe, high quality food and non-food agricultural products; and
- strengthen the development of agriculture-tourism links by building technical managerial capacities in the agriculture tourism sector.

Target groups. Producers of food and non-food agricultural products, tourism organizations.

Expected Outputs. The project envisions outputs to include:

- established links between the agriculture and tourism sectors plus integration of stakeholders from the public, non-governmental and private sectors;
- viable post-production enterprises and increased business opportunities for small-scale producers of fresh and processed food and non-food agricultural products;
- improved technical and business capacity to generate growth in the agriculture and tourism sectors;
- production of the food and non-food agricultural sectors that meets the needs of the local tourism sector and strengthens the authenticity of local products offered to tourists.

Linkages/potential partners. Strengthen links between agriculture and tourism sectors. FAO will collaborate with the World Tourism Organization (WTO) in the development of a collaborative programme with Ministries of Agriculture and Ministries of Tourism.

Duration: Phase 1 activities, funded by FAO and WTO, currently underway in Cape Verde and Dominican Republic, are expected to be completed by December 2005. Phase 2 will be completed over a three-year period.

Potential funding sources. Sustainable Tourism for the Eradication of Poverty (STEP) Fund.

Module 7

LAND TENURE SECURITY

Justification. Existing governmental institutions in SIDS often lack capacity to deal with secured property rights and resources management. Decision-making continues to be centre-driven with little respect for local ideas and initiatives. In spite of the fact that a number of problems related to land administration and land management have been identified (including cumbersome and outdated land titling, registration, cadastral and local planning systems that do not reflect the needs of a modern world), knowledge of land tenure and land management issues remains insufficient; appropriate information, tested methodologies and implementation tools to address the problems are largely absent. Initial efforts to inventory and assess the land resource base in some SIDS countries have proven successful in enlarging the knowledge base that will serve as a foundation for decision-making on future land use.

In spite of the immense and complex problems of vertical and bureaucratic administrative systems, there are assets that can be drawn upon to make a difference, both within governments and in civil society organizations. Opportunities for promoting new attitudes, developing new skills and exploring the dynamics of a younger generation must be further explored. Reforming the practices of local governments through, for instance, a more accountable and participatory land tenure and resource management process must be encouraged. It will create opportunities for bringing planning and development closer to the direct beneficiaries with their active participation.

Objective. To support the administration system and territorial planning interventions for social stability and equitable rural development.

Approach. The strategic framework FAO is developing with national counterparts on land tenure and management issues recognizes supports and builds upon several worldwide economic and governance trends and presumptions:

- recognition of the private sector, including smallholders and local communities, as the pre-eminent engine for rural development, and encouragement of private investment in land development, through clear and secured tenure rights;
- decentralization of government with an emphasis on bringing land administration closer to its intended beneficiaries and facilitating active local participation in the planning and implementation of resource management;
- rethinking the role of the government at all levels to support the foregoing trends by identifying optimal levels within governments for carrying out specific land-related tasks (e.g. facilitation of land management, land use regulation, registration of land rights), emphasizing the need for government to enable private sector activities through training, capacity building and related activities.

The proposal hinges on the principle of complementary and mutually supportive activities at the community, municipal and provincial levels. At the provincial level, efforts will focus on improving capacities of the land administration institutions, with particular support to multidisciplinary fieldwork in a number of pilot areas. The reiterative and interactive process will facilitate the development of methodologies that respond to the needs at all levels. Given its innovative character, the project embraces a strategy of gaining experience in some selected pilot areas, hence requiring decentralization of the activities to the municipality level. Methodologies can be implemented on a wider scale only after thorough testing and validation. A successful demonstration in the pilot areas is essential if the new approach is to capture public support and take off in the countryside.

Target groups. Local communities and land administration institutions such as cadastre, registry and land management and planning.

Expected outputs. The proposal envisages the following outputs:

- inventory of existing agricultural and rural development policies and capacities with identified deficiencies to be tackled by a training programme, focusing mainly on governmental institutions but open to NGOs and CSOs;
- inventory of institutional capability to deliver or support training programmes in the areas previously identified;
- appropriately designed training programmes;
- tested methodologies for participatory and action-oriented land tenure security interventions at community, municipal and provincial levels;
- strengthened participatory land administration system;
- strengthened local participatory land management system.

Linkages. Regional Programmes for Food Security.

Potential partners. FAO will collaborate with a set of international (FIG, Land Tenure Centre, IRD, GTZ) and national institutions and organizations (NGOs/CSOs, national universities and other land administration institutions).

Potential funding source. World Bank, EU, IFAD and donor countries.

Module 8

TRADITIONAL FOOD SYSTEMS AND SUSTAINABLE LIVELIHOODS

Justification. The livelihoods of many rural and urban families depend on the growing, processing and marketing of traditional staple food. Most products of these subsistence or semi-subsistence systems are consumed domestically but performance is low. There is considerable scope to improve the profit margins at each level of the value chain and increase the quality of the final products. Productivity, quality and profitability of local staples can be substantially increased by training. Knowledge of and training in production including specific pest and disease management, low cost irrigation technologies, successful processing techniques and workable marketing strategies is required at national level and in local language formats. Most importantly, rural poverty and food security can be enhanced by adopting a sustainable livelihood approach that integrates vulnerable groups within the socio-political fabric.

Approach. The project will take a livelihood perspective by focusing on the ways poor people and especially poor families make their livings. It will aim at reducing vulnerability while strengthening individual and collective capacity to withstand shocks. Specific attention will be given to asset ownership (both material and social resources) to reduce vulnerability in the face of shocks (seasonal, family, market, natural disasters, etc) and to build household capacities to prevent falling into poverty when exposed to those shocks.

Objectives. To overcome poverty and improve livelihoods through enhancing traditional food systems and household capacities to cope with, and recover from, stresses and shocks while not undermining the natural resource base by:

- identifying options for the intensification and diversification of traditional food systems (fruits, vegetables and non-grain starchy staples) and developing, adapting and disseminating proven production technologies of traditional foods;
- promoting urban gardens and non-farm activities;
- establishing locally accessible financial services;
- providing vocational technical training, organizational development training and mentoring;
- establishing community development associations to facilitate the full participation of rural communities and to negotiate with local and national authorities;
- supporting demand-driven multisectoral interventions (e.g. health, education) in partnership with other relevant projects and line ministries.

Target groups. Rural households, farmers' organizations, NGOs, service providers in the traditional staple food chain, and vulnerable groups involved in producing, processing and marketing traditional staples.

Expected outputs. The project will produce the following:

- enhanced local capacity to manage productive traditional food systems;
- increased share of traditional staples on the domestic food market;
- improved food security and profit generation through on- and off-farm activities;
- established community development associations for financing community benefit activities through loans and grants;
- increased profitability and stability of overall local production;
- established local government and community development associations linkages for translating rural needs into policy at the national level.

Linkages/Potential partners. Regional Programmes for Food Security, EU/SPC-DSAP, regional NGO networks active in agriculture and sustainable livelihoods.

Potential funding sources. DFID

Module 9

NUTRITION SECURITY

Justification. Indigenous island foods are rapidly being displaced by highly processed imported foods due to the modernization-globalization process. During the last decade, changes in lifestyle and food habits in island nations have meant a reduction in the consumption of traditional foods, with an increase in consumption of “fast foods” and increased dependence on food imports. As a result, nutrition-related non-communicable diseases such as obesity, diabetes and heart disease are on the rise in SIDS, already accounting for up to 75 percent of the total disease burden in Pacific island countries. Micronutrient deficiencies such as iron and vitamin A deficiency are being exacerbated by the same dietary changes. This “silent hunger” forms part of the “double burden” of malnutrition.

Yet, research shows that many indigenous island foods are often greatly richer in vitamins and minerals than imported equivalents. However this knowledge is not widespread among the local populations who prefer imported foods, believing them to be more nutritious and also because of their higher social status. In addition, as dietary habits change, many native food plants are disappearing. The loss of food and plant diversity could further accelerate nutritional health problems. Appropriate action is necessary to prevent and, where possible, reverse the loss of food and dietary diversity and to safeguard indigenous knowledge and practices.

Trade of agriculture and fishery products represent the basis of most SIDS economies, whether they are net importers or exporters. However, intensification of island agriculture has been accompanied by improper use of pesticides and other agricultural chemicals, resulting in an increasing number of agricultural shipments being rejected at entry points in Australia, USA and other importing countries. In addition, lack of accredited laboratories in SIDS is a major constraint to the agricultural and fishery sectors’ efforts to maintain and increase their exports. Local producers often cannot export their products due to the limited availability of accredited laboratories that can assure compliance with importing countries’ requirements for food safety (nutrient and contaminant data) and labelling information.

Objective. To improve the health and nutritional status of SIDS people, reduce dependency on food imports and to improve economic wellbeing, while simultaneously preventing the loss of biodiversity. Also, to improve the capacity for food analysis and effective dissemination of nutrient and contaminant data in SIDS.

Approach. The project will be designed to strengthen local food industry capacity through training, instrumentation and international accreditation; supporting the sampling and analyses of relevant indigenous foods; and the publication and distribution of regional SIDS Food Composition Tables. More specifically; the project will:

- promote indigenous foods through provision of image-enhancing information on the nutritional content and benefits of selected crops, livestock, fish and products harvested in the wild;
- increase the availability of nutritionally valuable and locally appropriate food plants through strengthened collaboration between health and nutrition services and agricultural support services;
- promote the conservation and sustainable use of agro-biodiversity, including indigenous food plants and animals;
- create a comprehensive database containing nutritional value of various cultivars/species, their traditional uses and other relevant information needed to promote and raise the awareness and image of indigenous foods found in the region;
- produce educational and promotional materials in local languages (booklets, posters, teaching cards, videos, Web sites) that share knowledge and promote indigenous foods;

- help national officials carry out promotional campaigns to encourage growing and consumption of indigenous foods.

Target groups. Nutritional data for local consumers would be disseminated via food labels and through popular and professional publications, nutrition promotion campaigns, etc. Contaminant data can be used by health and agriculture authorities to protect potentially affected populations, monitor the safety of domestic foods supplies and assure quality of exports.

Expected outputs. Improved capacity for food analysis and effective dissemination of nutrient and contaminant data in SIDS would have many positive results for both population health and economic growth. In addition to providing crucial data to support the food and fish trade sectors, energy (calorie) and nutrient content of the diet could be determined, along with the levels of food contaminants such as heavy metals, pesticides, aflatoxins. This data could be used to evaluate food insecurity and vulnerability and ensure that people have access to nutritious and safe diets by providing a quantitative assessment of the dietary quality and safety.

Linkages. Regional Programme for Food Security, regional initiatives such as the Pacific Action for Health Project funded by Australia and implemented by SPC that aims to enhance government and community capacity to address NCD priority risk factors and provide health promoting environments.

Potential partners. Secretariat of the Pacific Community (SPC), World Health Organization (WHO), UNICEF.

Potential funding sources. Australia, Italy, New Zealand, EU, JICA, World Bank, IFAD.

Module 10

PROMOTION OF RESPONSIBLE FISHERIES

Justification. In SIDS, the fisheries sector often represents the "national engine of growth", supporting broader social and economic purposes such as health and education systems, and national capacity building. The restricted opportunities that many SIDS face for industry development require that they pursue economic development strategies closely tied to the use of their fisheries resources. Because they have essentially self-contained ecosystems, fisheries problems in SIDS usually manifest themselves more obviously, more quickly and with greater effect than in continental states. In SIDS, food security and the effective conservation and management of fisheries resources are critically linked. For food security reasons, the rational utilization of all fisheries resources, but in particular inshore fisheries resources, must be the central concern of international programmes of sectoral assistance directed to SIDS. National and international programmes of assistance for SIDS should aim to ensure that food security is promoted first and foremost, that existing levels of fishing effort do not result in unsustainable resource use and that measures are taken for their rehabilitation in areas where stocks have been subjected to excessive fishing.

Approach. Since 2002, the Responsible Fisheries for Small Island Developing States Project has operated as a component of FishCode, FAO's Programme of Global Partnerships for Responsible Fisheries. The SIDS Project works to strengthen the capacity of SIDS' fisheries administrations to promote and facilitate responsible fisheries in support of social and economic development. FAO works primarily with national administrations in implementing the Responsible Fisheries for SIDS Project, but seeks partnerships with regional organizations as a means of facilitating prompt and efficient implementation of the Project, particularly in situations where more than one state is involved in an activity within a region. A participatory approach in the identification of the development issues and problems is followed.

Target groups: Fisheries policy and planning decision-makers, fisheries managers, fishing communities, fisheries industry, fishers associations.

Expected outputs. Institutional strengthening and national capacity building, enhanced conservation and management of Exclusive Economic Zones (EEZ) fisheries and an enhanced economic role for national fisheries industries, including the privatization of fisheries investment where appropriate. As a consequence of stronger fisheries administrations, fisheries conservation, management, development and utilization will be enhanced. This situation will provide a more secure supply of fish for subsistence purposes within SIDS and, at the same time, increased opportunities and prospects for small-scale and industrial fishers to earn stable and regular incomes from the exploitation of inshore, near-shore and, as appropriate, off-shore resources. The implementation of fisheries conservation and management arrangements that reduce fishing effort in inshore areas, and the relocation of some fishers to near-shore and off-shore fisheries, will greatly contribute to the sustainability of all fisheries in SIDS.

Linkages. The FAO Code of Conduct for Responsible Fisheries and related instruments, including the International Plans of Action (IUU Fishing; Fishing Capacity; Sharks; and Seabirds), and the UN Fish Stocks Agreement; Convention on Biological Diversity.

Potential partners. Asia-Pacific Fishery Commission, Southwest Indian Ocean Fisheries Commission, Western Central Atlantic Fishery Commission, Southeast Asian Fisheries Development Center, Programme for Sustainable Fisheries (PROFISH), WorldFish Center (ICLARM), Secretariat of the Pacific Community, CARICOM Secretariat, UNEP Regional Seas Programme, Network of Aquaculture Centres in Asia-Pacific, Asia Pacific Economic Cooperation (APEC), Fisheries Working Group, International MCS Network..

Potential funding sources: Australia, Japan, New Zealand, Iceland, United States, European Union, World Bank Program for Sustainable Fisheries (PROFISH), UN Fish Stocks Agreement Part VII Assistance Fund.

Module 11

SUSTAINABLE FOREST MANAGEMENT

Justification. Planted forests, trees, trees outside forests and agroforestry improve food security and livelihoods and protect coastal and mountain areas. For SIDS, planted forest and tree resources have a critical and positive role for protection against storms and other natural hazards and they provide a valuable means for rehabilitating degraded lands and protecting coasts.

Objective. To launch a forest management programme to rehabilitate degraded coastal and mountain areas with emphasis on reforestation and agroforestry, to improve the livelihoods of communities and to build the capacities of national organizations dealing with national forest policies.

Approach. The project will be participatory and engaging a wide range of stakeholders.

Target groups. The project targets groups at provincial and local levels, non-governmental organizations, community-based organizations, the public and private sectors, local institutions, government officials and civil society in general but especially small producers, women and indigenous people living along, and heavily dependant on, coastal areas for their subsistence through agriculture, tourism and fisheries.

Expected outputs. As a result of this project, the goal is to have:

- enhanced access to, and utilization of, rehabilitated degraded land;
- improved productivity and contribution to local food security;
- protected mountain areas for the sustainable production of water and conservation of biological diversity, including wild edible foods;
- opportunities for the production of timber products, goods and services, including marketing and trade of carbon stocks as well as alleviation of household fuelwood shortages; and
- facilitated access to the Kyoto protocol special funding for SIDS.

Linkages. Finnish-FAO Forestry Programme for Early Rehabilitation in Asian Tsunami Affected Countries, UN Revised Flash Appeal Projects and others such as the Belgium funded project on Emergency Assistance in Support of Fishery and Agriculture Livelihoods and Rehabilitation of the Environment in Tsunami Affected areas of the Seychelles, FAO's projects in the pipeline related to integrated coastal area management in tsunami-affected areas.

Potential partners. Local and national governments, NGOs, community-based organizations, the International Tropical Timber Organization (ITTO); the Centre for International Forestry Research (CIFOR); the World Agroforestry Centre (ICRAF), and the Convention on Biological Diversity (CBD) and regional organizations and groups.

Potential funding sources. Belgium, European Union, Finland, Germany, Italy, Japan, Norway, Spain and the United Kingdom and collaborative funding with IGOs and NGOs. The World Bank and regional banks could be considered as possible funding sources. Also, the UNFCCC Adaptation Fund, Special Climate Change Fund and Least Developed Country Fund.

Module 12

ADAPTATION TO CLIMATE CHANGE THROUGH DISASTER RISK MANAGEMENT

Justification. The Intergovernmental Panel on Climate Change (IPCC) projects that unless drastic action is taken, global temperatures will continue to rise and extreme weather events will become more frequent and intense. SIDS are extremely vulnerable to climate change, climate variability and sea level rise. They are among the first suffering the impacts of climate change and will be among the first forced to adapt or abandon and relocate from their environment. For this reason, it is imperative for SIDS to promote adaptation strategies to climate change and implement efforts to further increase resilience against climate change impacts that portend extreme events and long-term change. Adaptations to climate change require measures and processes through which people reduce the adverse effects of climate change on their health and well-being, and take advantage of the opportunities that their climatic environment provides.

In responding to the climate change issues, it will be important to address the existing fundamental vulnerabilities of the poor who are living in the most insecure places and then build their resilience to better cope with the increasing scale of climatic fluctuations expected through climate change. Most of SIDS' vulnerable people live in rural areas, where the main source of livelihood is in the agriculture sector, including livestock, forestry, and fisheries. In order to manage risks, a common current strategy is to provide seed capital and matching grants directly to community-based initiatives, in cooperation with non-governmental and community-based organizations, including provision of micro-credit services. Appropriate adaptation also needs to focus on strategies that secure agricultural productivity in a sustainable manner to the largest extent possible. In addition, through the improved use of Early Warning and Information Systems (EWIS) and Disaster Information Management Systems (DIMS), the short- and long-term impact of the (extreme) events on agriculture can be assessed while providing, in the medium to long term, significant contributions towards disaster preparedness and mitigation of potential risks, and the preparation of development plans that strengthen resilience to withstand such disasters.

Objective. The overall objective is to identify and implement specific adaptation measures to address the climate change impacts in SIDS. The specific goal is to increase the resilience of SIDS communities which are more vulnerable to climate change impacts by promoting improved institutional frameworks for disaster risk management (including early warning and disaster management information systems), and enhancing livelihoods and local capacities to cope with climate, financial and market risks.

Approach. The project will strengthen capacities of institutions and the use of mitigation tools to mainstream disaster risk management and climate change adaptation options into agriculture, livestock and fisheries development through:

- participatory identification of current vulnerabilities and risk reduction measures, and implementation of prioritized community-based disaster risk reduction activities (e.g. national and subnational early warning systems);
- strengthening capacities of communes/villages to manage their resources (savings, credit scheme, agricultural inputs, agricultural production, land use, etc.);
- enhancing the number and use of technological options to adapt to and manage climate variability associated risks that pose a continuous threat to livelihoods (e.g. disaster information management system);
- raising awareness of farmers and building capacities of local institutions in support of the national disaster management policy;
- advocating national policy-makers on natural disaster risk management and climate change and the relation between the two;

- strengthening partnerships between regional and national research institutions, extension systems and farmers/fishermen.

Target group. Local communities, agrometeorologists, farmers, fishermen, foresters, researchers, extensionists, traders, policy and decision-makers.

Expected outputs. The objectives will be achieved through the following interventions:

- improved monitoring, systematic observation and early warning systems;
- integration of disaster risk and climate change concerns into institutional and policy frameworks in the agriculture sector;
- utilization of available technological options to strengthen adaptation programmes to more frequent and more intense natural hazards;
- enhancement of institutional capacities for disaster risk management and climate change adaptation;
- enhanced awareness, advocacy and concerns about the impacts of climate change on vulnerable people;
- enhanced regional and national disaster management information systems;
- integration of improvements into the overall disaster risk management frameworks of the countries.

Linkages/Potential partners. FAO will collaborate with a set of international (WMO, ISDR, IUCN, International Federation of Red Cross), regional (ADPC, CARICOM, CPACC) and national institutions and organizations (NGOs/CSOs, national universities and other land administration institutions). Links will be made with initiatives such as the Global Ocean Observing System (GOOS), the Global Terrestrial Observing System (GTOS), Global Land Cover Network (GLCN) and the Food Insecurity and Vulnerability Information and Mapping System (FIVMS).

Potential funding sources. UNDP, World Bank, EU, and donor countries.