
II. Situation Analysis and Agriculture Sector Overview

2.1 Nauru is one of the world's smallest countries consisting of a single island of 21 square kilometers; the Island has a central plateau 40–60 meters above sea level with a surrounding strip of coastal land 150–300 meters wide, where most of the population of approximately 9,000 live. Nauru's economy has largely been based on phosphate mining for many decades and the export of phosphate has been the island's only income, apart from some overseas investment. Phosphate export had afforded a high standard of living and high buying power for the people of Nauru for decades. With the phosphate stock now almost depleted and the downfall of the economy there has been an emergence of critical thought on sustainable livelihoods. A major concern of both the government of Nauru and the donor community is the worsening food security situation faced by the country. A food deficiency crisis is expected to deteriorate unless appropriate arrangements are immediately implemented. Soaring global food prices coupled with the government's financial difficulties and very high levels of foreign and domestic debt²² mean that the majority of people of Nauru can barely afford the high cost of imported food products.

2.2 Agriculture and Fisheries have been identified as priority sectors for development in view of their direct link to and role in improving nutrition and food security. However, after years of mining, the only fertile areas are in the narrow coastal belt and the land surrounding Buada lagoon. Also the will to till the soil, plant crops and raise livestock has largely disappeared from the general population, as have most of the fertile soils, through phosphate mining. Inadequacy of bore water and frequent droughts mean that availability of water is also a limiting factor for agricultural production. Currently very few food crops are grown; most food items are imported and only limited varieties of fruit trees and vegetables are cultivated

²² The ratio of public external debt to gross domestic product (GDP) is extremely high at the order of 1,000%. There are also large debts within Nauru, notably to civil servants for unpaid wages and salaries, between the government-owned enterprises and the Government and to deposit holders in the national bank, the Bank of Nauru. In total, local debts are of the order of 1,700% of GDP (ADB Country Economic Report 2007).

on a very small scale for home consumption. There is currently no formal commercial agriculture in Nauru.

- 2.3** The area of land potentially available for agricultural purposes is small (there is only about 4 km² of fertile land, much of which is taken up by residential housing). Availability and sustainability is constrained by plot size, soil type, proximity to housing and other alternate use. This is further constrained as a result of land tenure conflicts and water rights. Land tenure is complicated and can restrict individual developments. Land is fragmented and often polluted. It is relatively infertile, has poor water holding capacity and narrow available water range. Irrigation, if available is rudimentary and will rely on a potentially brackish underground water resource or a fragile rainwater collection system. Rainwater catchments are used to supplement bore water although frequent droughts make dependence on this source risky for commercial operations. FAO recently completed a study into the feasibility of setting up a hydroponics system for the production of vegetables. Insufficient availability of water was identified as one of the most limiting factors. Improving water use efficiency through an appropriate water-use strategy, including conservation, rainwater catchments and appropriate irrigation practices is a priority if agricultural production is to increase.
- 2.4** Nauru soils are generally poor and suffer major deficiencies of key elements (particularly nitrogen and potassium). Use of fertilizer and composting is not common due to costs and lack of farmer skills. But given resources, these problems can be rectified. Currently, however, agriculture and home gardening activities are still rather limited. Measures to alleviate these problems include education programs within schools to improve awareness of the necessity to produce local food, mobilization of community groups to train the families on food production activities, and the provision of propagation materials and tools for home garden activities. As the people of Nauru become aware of the need to improve their food security and nutrition status, agriculture is beginning to grow in importance as more people are now starting to plant crops. Donors are giving support to the effort; however activities are currently piecemeal and unorganized in nature. Small-scale production of vegetables and tree crops has been encouraged and effort to improve productivity made, targeted at the coastal strip. Furthermore, a farming system based on growing suitable crops on medium largely comprising compost in - for example, half drums and wooden boxes - has been piloted to provide nutritious food and to help get the population into a self help mode that could underpin sustainability.
- 2.5** Various crop pests e.g. two exotic fruit fly specie and *Brontispa* have been cause for concern due to destruction to the small amount of fruits and vegetables in the island and to coconuts, respectively. Previous interventions by an FAO regional project on fruit flies eradicated one of the fruit flies, although new incursions have since occurred. Further work in the area of integrated pest management is needed.
- 2.6** Development of Fisheries is vital to food security in Nauru. Fisheries play an important role in the economy of the country from license fees²³ for foreign fishing boats fishing in the substantial EEZ. The limited reef areas and very deep ocean surrounding the island, limits the importance of coastal fishing. Deep sea game fishing is limited to those with power-boats with outboard motors. During the heydays of phosphate mining, game fishing dominated the scene. Currently however, the few fishermen having canoes contribute significantly to food needs at the subsistence level. Materials and know-how to build fishing canoes are needed to enable more fishermen to take advantage of six existing Fish Aggregating Devices (FAD) that have been strategically placed around the island. Milk fish have been successfully farmed at Buada lagoon as well as in other aquaculture operations. These however, have been neglected

²³ Nauru currently collects between A\$5 million and A\$7 million per year in fishing licenses.

and have fallen into disrepair over time. Development and strengthening of aquaculture/mariculture operations is now a priority.

2.7 Ministry of Health report that poor nutrition, lack of and high cost of imported vegetables and fruits are important contributing factors leading to Nauru being: considered one of the countries with the highest type 2 diabetes rates in the world; and with a declining life expectancy for the population. According to 2007 NDHS findings, almost one-quarter of Nauru children are stunted and over half of children aged 6-59 months are anemic²⁴. The current economic status of the country, dictates that locally produced food is key to food security and to better nutrition.

2.8 Farming is new and relatively more challenging in Nauru than in many other places. Everyone involved in farming needs information and advice from the poorly resourced Agriculture Division. Staff of the Division of Agriculture has no formal training in agriculture. Lack of human resource capacity for developing the agriculture and fisheries sector, both in government and the general population, is a critical limitation that needs to be addressed by any support programme. Full time technical assistance should be envisaged as well as a well planned capacity building and skill training programme.

III. Key issues shaping priorities for FAO assistance

- ☐ Limited livelihood options.
- ☐ High and volatile food prices and a deep trade balance deficit.
- ☐ Low level of skills on basic crop and livestock husbandry
- ☐ Weak agriculture and extension capacity and human resources for sector development.
- ☐ Lack of know-how on preparation and utilization of local foods
- ☐ Limited land and soil available for agriculture production.
- ☐ Poor agricultural production potential on poor soils
- ☐ Limited water supply for competing demands between domestic and agricultural uses.
- ☐ Lack of policies and control on use of pesticides (pesticides act)
- ☐ Lack of and inconsistency in supply and high costs of agriculture and livestock inputs
- ☐ High cost of livestock and aquaculture feed.
- ☐ Lack of improved breeds of livestock – especially pigs and chickens
- ☐ Lack of sound advice on crop production and livestock production and health.
- ☐ Lack of skills and equipments for Aquaculture and Hydroponics
- ☐ Lack of resources to increase and maintain Fish Aggregating Devices (FADs)
- ☐ High costs of materials for and lack of skills on canoe making
- ☐ Total reliance on food imports as agricultural and livestock production levels are very low.
- ☐ High and increasing levels of food and nutrition related non communicable diseases, which impact negatively on the health system, families and national economy

IV. Country program framework

4.1 The National Sustainable Development Strategy (NSDS 2005-2025) approved by Government in 2005 outlines the prioritized long term development options based upon feasible scenarios for the future development of Nauru. It aims to ensure socially responsible economic development while protecting the resource base and environment for the benefit of future generations. The NSDS provides a summary of “Nauru today” covering demographics,

²⁴ 2007 Nauru Demographic and Health Survey (NDHS) implemented by the Bureau of Statistics in conjunction with Department of Health.

economics, governance, social and environmental issues. The NSDS envisages the development of sectoral plans to guide development, and with technical assistance from FAO, a Strategic Plan for the Sustainable Development of Agriculture (SPSDAg) was developed in 2007. The Plan supports the goals and priorities of the NSDS and is in line with the overall efforts to strengthen national development planning. The Strategic Plan is the first step in strengthening agriculture development and promoting self-sufficiency and food security for the people of Nauru. It also provides a framework and a range of actions requiring commitments and coordinated joint efforts from Government, development partners, the private sector, civil society and the people of Nauru.

4.2 Although both the NSDS and SPSDAg emphasized protection of the environment for benefit of future generations; impacts of phosphate mining which brought great wealth in the past, has done irreversible damage to the land and environment of Nauru. This will always have the largest impact on agriculture development and local food production. The SPSDAg sets seven policy goals and strategies for agricultural development: (1) Greater Food Security through significant increase of locally grown agricultural produce; (2) Improved consumption of more nutritious foods through significant increase of locally produced foods; (3) Strong partnerships established between Farmers, the Division of Agriculture and Donors; (4) Capacity development, strengthened and maintained through targeted trainings; (4) Improved water storage facilities and promotion of appropriate water conservation techniques for irrigation; (5) Strengthened policy and regulatory frameworks for the agricultural industry; and (6) Improved governance frameworks for the agricultural sector.

4.3 In 2004 at the Pacific Islands Forum meeting, Nauru requested regional assistance to support its efforts in fighting the economic and financial crisis it was facing. In response the Forum Secretariat put together a package which saw the deployment of a Magistrate, Legal officer, and Development Planner to assist Nauru's reforms. The Pacific Regional Assistance to Nauru (PRAN) has been supported by several donors including Australia, New Zealand and Japan. The UN agencies and the regional CROP agencies through their work programmes and through regional projects which they implement are also providing assistance to Nauru. The Aid Management Unit (AMU) under the Development and Policy Division of the Ministry of Foreign Affairs is the focal point for all development assistance.

4.4 Government, in collaboration with a number of donors²⁵ is implementing a range of development initiatives in an attempt to revive the economy and development of the agricultural sector is one of those key initiatives. The aim is to improve domestic food production and the overall performance of the agriculture sector. The main development partners include Australia, Taiwan, the Secretariat of the Pacific Community (SPC) and FAO. The Australian government has provided technical assistance and filling up key line positions within the Ministry of Finance and Planning in order to put in place appropriate fiscal and financial policies and management regimes to facilitate the recovery of the economy. Taiwan is providing support for vegetable gardening and aquaculture (Milk fish development). The World Health Organisation is providing technical assistance for drafting of food safety legislation and provision of supplies to enable more effective enforcement.

4.5 Nauru has 2 projects being implemented under GEF co-financing and participates in the GEF Pacific Alliance for Sustainability programme (GEF-PAS) with priority areas for proposals

²⁵ The budget is heavily dependent on grant aid. The revenue estimates included A\$6.8 million in donor funding in FY2007 and A\$11.0 million for FY2008. A substantial amount of aid is also provided off-budget, much of which is in-kind. It is estimated that in total Nauru received approximately A\$33 million of aid in FY2006, leading to a very high ratio of aid to GDP for the year of 89.4%. The bulk of this, A\$20 million, came from Australia, under a memorandum of understanding (MOU) with the Australian Government (ADB Country Economic Report 2007).

for inclusion are: Integrated island biodiversity and community-based conservation; Integrated sustainable water resource and wastewater management (IWRM); Building resilience to climate change, and energy efficiency programmes.

Overview of FAO on-going and recent assistance

4.6 FAO support has focused on improving food security and has provided support for development of the sector plan. TCP projects have also supported integrated pest management of Coconut Hispid Beetle, eradication of fruit fly and assistance for cultivation of disease-free bananas. Under the RPFS support was provided for a home gardening project to improve household food supply and open opportunities for income generation. Nauru has also benefited from the Telefood Program of FAO through 4 Telefood projects approved in 2006.

V. Proposed Programme Framework

5.1 Based on the situation analysis and existing medium-term priorities of the Government and the UN System, and taking into account past and on-going FAO and partner's programmes, the following three priority outcomes will be pursued in the next four years:

- 1) Increased production, productivity and resilience of crop, livestock and fisheries systems.
- 2) Improved public health through increased consumption of locally produced foods and reduced reliance on imported processed foods.
- 3) Strengthened institutional and human resource capacity for agriculture development.

Increased production, productivity and resilience of crop, livestock and fisheries systems.

5.2 The environment for agricultural production in Nauru is extremely harsh with limited land of generally poor quality and critical water constraints. However increasing agriculture (and fisheries) production and productivity offers some potential for strengthened food security and improved livelihoods. The FAO programme will focus support (primarily through FSSLP and TCP) to enhance production and productivity of basic crop and livestock systems and to improve sustainable opportunities for fisheries and aquaculture development.

Improved public health through increased consumption of locally produced foods and reduced reliance on imported processed foods.

5.3 With the changing lifestyles and dietary habits in Nauru, the health of the nation is now dominated by non-communicable diseases (NCDs) such as diabetes, obesity, cardiovascular diseases and cancer. These NCDs are creating new challenges for the already stretched public health and curative services. A very heavy reliance on imported processed food products coupled with declining household incomes is exacerbating this situation. Key obstacles that need to be overcome to increase fruit and vegetable consumption in Nauru are the limited availability and high costs of these foods on the island. FAO will support strategies (including home and community gardens) to increased access and availability of quality locally produced fruit and vegetables for all population groups.

Strengthened institutional and human resource capacity for agriculture development.

5.3 Nauru faces a significant challenge to develop the agriculture and fisheries sectors, but has limited institutional and human resource capacity to undertake this difficult task – FAO support whilst primarily endeavoring to strengthen local institutions and build capacity will also consider the need to provide longer-term technical assistance to address critical needs when local resources are not available.

Priority NMPTF Outcomes and their Relationship to the Government and UN Medium-term Priorities

Agriculture Medium-Term Development Agenda SPSDAg 2007-2017		UNDAF Results Areas: 1. Equitable economic growth and poverty reduction, 2. & 4. Sustainable environmental management		
Strategic Goals	Key Issues/constraints	NMTPF Outcomes	NMTPF Outputs	Potential areas for FAO assistance
<p>1. Improve Food Security through significant increase of locally grown agricultural produce</p> <p>2. Increased consumption of more nutritious foods through significant increase of locally produced foods</p> <p>3. Strong partnership established between Farmers, the Division of Agriculture and Donors</p>	<ul style="list-style-type: none"> <input type="checkbox"/> High and volatile food prices and a deep trade balance deficit. <input type="checkbox"/> Limited livelihood options. <input type="checkbox"/> Limited land and soil available for agriculture production. <input type="checkbox"/> Poor agricultural production potential on poor soils <input type="checkbox"/> Limited water supply for competing demands between domestic and agricultural uses <input type="checkbox"/> Limited capacity for food crop production. <input type="checkbox"/> High cost of livestock and aquaculture feed. <input type="checkbox"/> Lack of improved breeds of livestock – especially pigs and chickens <input type="checkbox"/> Lack of resources to increase and maintain Fish Aggregating Devices (FADs) <input type="checkbox"/> High costs of materials for and lack of skills on canoe making <input type="checkbox"/> Total reliance on food imports as agricultural and livestock production levels are very low <input type="checkbox"/> Lack of know-how on preparation and utilization of local foods <input type="checkbox"/> Lack of food quality and safety standards <input type="checkbox"/> Lack of policies and control on use of pesticides (pesticides act) <input type="checkbox"/> High and increasing levels of food and nutrition related NCDs 	<p><i>Increased production, productivity and stability of crop, livestock and fisheries systems.</i></p> <p>.</p> <p><i>Improved public health through increased consumption of locally produced foods and reduced reliance on imported processed foods</i></p>	<ul style="list-style-type: none"> <input type="checkbox"/> Capacity to produce organic manure and training provided <input type="checkbox"/> Infrastructure and training provided <input type="checkbox"/> Improved livestock breeds available , training and infrastructure provided <input type="checkbox"/> Infrastructure and training provided <input type="checkbox"/> Infrastructure and training provided <input type="checkbox"/> TA provided, training, awareness and curriculum developed <input type="checkbox"/> Training provided <input type="checkbox"/> Legislation and regulations prepared 	<p>Land rehabilitation and soil improvement (FSSLP)</p> <p>TA on water conservation and irrigation practices (TCP)</p> <p>Poultry and piggery development (FSSLP)</p> <p>Fisheries development (FSSLP)</p> <p>Expanding kitchen gardening (FSSLP)</p> <p>Health, Nutrition and Capacity Building</p> <p>Food safety/standards capacity building in HACCP and Codex. Support for review and formulation of Legislation and regulations (TCPF & FSSLP)</p> <p>Development of Pesticides</p>

Agriculture Medium-Term Development Agenda SPSDAg 2007-2017		UNDAF Results Areas: 1. Equitable economic growth and reduction, 2. & 4. Sustainable environmental management		
Strategic Goals	Key Issues/constraints	NMTPF Outcomes	NMTPF Outputs	Potential assistance
<p>4.Capacity development, strengthened and maintained through targeted trainings</p> <p>6. Strengthened policy and regulatory frameworks for the agricultural industry</p> <p>7. Improved governance frameworks for the agricultural sector</p> <p>Environmental Sustainability</p>	<p><input type="checkbox"/> Weak agriculture and extension capacity and human resources for sector development.</p> <p><input type="checkbox"/> Low level of skills on basic crop and livestock husbandry</p> <p><input type="checkbox"/> Lack of available advice on livestock production and health.</p> <p><input type="checkbox"/> Lack of skills and equipments for Aquaculture and Hydroponics</p> <p><input type="checkbox"/> Vulnerability to adverse impacts of Climate Change and Sea level Rise</p>	<p><i>Strengthened institutional and human resource capacity for agriculture development.</i></p>	<p><input type="checkbox"/> TA, training and skills development provided</p>	<p>Legislation</p> <p>Capacity (TCP, R)</p> <p>Support (horizon)</p>