

VANUATU

Capital:	Port Vila
Land Area (km²)	12,190
Sea Area/EEZ (km²)	680,000
Islands (No.)	80 (67 are inhabited)
Population (No.)	199,800 (2000)
Annual Growth (%)	0.9
Density (inhabitants/km²)	16
Rural Population (% of total population)	82
GDP (US\$ million)	257.9 (1997)
Agricultural GDP (% of total GDP)	16 (1996)
GDP per caput (US\$)	1,009 (1997)
Currency:	Vatu

A. General

The archipelago of Vanuatu is situated in the south-west Pacific Ocean approximately 2,300 km off the east coast of Australia, between New Caledonia, the Solomon Islands and Fiji. It is comprised of some 80 islands and islets extending over 800 km north to south. The total land mass area measures 12,190 km², with an exclusive marine economic zone of 680,000 km². The largest two islands are Espiritu Santo (4,248 km²) and Malekula (2,053 km²). The administrative capital and commercial centre is Port Vila, located on Efate. The majority of the islands of Vanuatu are mountainous due to their volcanic origin, and there are three active volcanoes. Based on geographical locality, the country is divided into six provinces, which are administered by local governments.

The economy is based primarily on subsistence or small-scale agriculture which provides a living for 65% of the population. Fishing, offshore financial services, and tourism, are other mainstays of the economy. Economic development is hindered by dependence on relatively few commodity exports, vulnerability to natural disasters, and long distances from main markets and between constituent islands. The most recent natural disaster, a severe earthquake in November 1999 followed by a tsunami, caused extensive damage to the northern island of Pentecote and left thousands homeless.

B. The Agricultural Sector

Agriculture in the Economy. Agriculture including forestry and fisheries, accounts for approximately 22% of GDP and 80% of total exports. Agriculture consists of two sub-sectors (a) subsistence smallholder farming which accounts for almost 10% of GDP and (b) large commercial farms and plantations (13% of GDP). Most of the population (82%), lives in rural areas, and is supported by subsistence agriculture. The subsistence smallholder farming includes growing root crops, indigenous vegetables and tropical fruits, raising livestock and inshore fishing.

The livestock sub-sector contribution to GDP is significant. The country has approximately 150,000 heads of cattle. The infrastructure (export grade abattoir, quality control and veterinary inspection system) for beef production is well established. There are five export grade meat processing facilities, 2 abattoirs and 2 canneries, with slaughter output of more than 4,000 tons in 1994, however, rural farmers still face the difficulties due to high transportation costs. Most traded beef is frozen and exported to Japan and other Pacific countries (Papua New Guinea, Solomon Islands, Fiji and New Caledonia) while about 30 percent of slaughtered carcasses are canned. A bilateral agreement between Vanuatu and the Melanesian Free Trade agreement is already in place. Vanuatu currently benefits from this agreement, from the point of view of the beef sector.

The fisheries sub-sector is small with substantial potential because of the country's large exclusive economic zone (EEZ) and the reefs. All types of tuna abound its coastal waters. Smallholder fishing has been subsidised for about 10 years. Commercial fishing is carried out by companies from Taiwan, Korea, United States of America, through renewable fishing leasing agreements within the 200-mile EEZ. In 1999 the total revenue of US\$70,000 was collected from licenses, from about 14 Foreign Fishing vessels, which were mainly Taiwanese vessels. The Vanuatu tuna management plan was formally released in August 2000, to provide objectives to manage the tuna resource in a sustainable way.

Forestry contributes about 1% of GDP in 1999. The value of forest products exports has increased from VT252 million in 1995 to an average of VT350 million for the period of 1996 to 1999. The sector though, has faced difficulties, subsequently affecting exports. Due to pressure from conservation and environmental groups and fluctuation in the Asian crisis 1994, the Government imposed a ban on the export of round logs and reduced the number of logging companies. A National forest policy was approved by the Council of Ministers in 1998 and formally published by the Minister for Forests in 1999 to ensure the sustainable exploitation and equitable distribution of benefits from forest resource. The forestry legislation needs updating to be consistent with the New Forest policy (FAO is assisting this review).

Land Use, Farming Systems and Institutions. According to official 1989 population projections, Vanuatu has a land area of about 1,220,000 hectares (12,220 km²) with a population/land ratio of 14 persons per km², however with a population growth of 2.8% the envisaged scenario poses difficulties. Close to only 12% were devoted to agricultural croplands in 1993 (143,960 has) while the bulk (75%) of the land area is covered by forest and woodlands (915,000 has) and the rest to pasture (2.1% or 25,620 has) and other uses (11.2%). The average cropland per capita is almost 0.9 hectare. In Vanuatu, a large portion of the land resources is unutilised because of serious land and boundary-related disputes, associated with complicated customary land tenure problems.

Vanuatu's farming systems are a mixture of subsistence gardening (home gardens) and cash cropping. Vanuatu involvement in the agricultural cash economy has increased quite markedly since Independence (1980). Their outputs from cash enterprises and export commodities are more dominant than the purely commercial agricultural sector. Smallholders produced 80% of copra, 70% of cocoa, 20% of beef, and all kava.

The traditional food cropping system follows a slash and burn cum fallow period, which has remained virtually unchanged over centuries. Rapid population growth on some islands resulted in shorter fallow periods and declining soil fertility. More intensive commercial oriented agricultural production systems for food crops will have to be developed particularly

in serving the food security needs of urban and peri-urban population which are growing at phenomenal growth of more than 5% in Luganville area and close to 8% in Port Vila. Alternative cash crops for smallholder production include pepper, vanilla, groundnuts and potatoes. A National and Provincial Land Use Plan will influence future land use patterns and natural resources management systems.

Some irrigation development may accompany more intensive commercial crop production for food security and export purposes. Irrigation and farm mechanisation technology may gradually evolve through investment in adaptive research and develop in response to market opportunities. While processing of agricultural products is still underdeveloped in Vanuatu, recent initiatives to establish a Food Processing Centre constitute nucleus pilot plant and analytical facilities on which future development work may be built.

Major participants in the agriculture and natural resources sector include the: National Planning Office which sets macroeconomic policies and resource allocation framework; Ministry of Agriculture, Quarantine, Forestry and Fisheries (MAQFF) which promulgates and enforces sub-sectoral policies; Departments of Agriculture and Rural Division (DOARD); Quarantine and Inspection Services(QOIS), Forests (DOF) and Fisheries (DOF), which provide technical assistance and advice to farmers and fisherfolks and perform regulatory and monitoring activities; plantations; logging companies; Vanuatu Commodity Marketing Board (VCMB) the sole exporter of copra, cocoa and coffee and kava; the abattoir and meat processing companies; agro-industries, traders and thousands of Ni-Vanuatu fisherfolks and smallholder producers of crops, livestock and other commodities.

Major Challenges and Constraints. The most daunting issues for Vanuatu agriculture towards 2010 are the high rates of population growth (2.8% annually) and growing urbanisation and unemployment which are creating widening income inequality and mounting pressure on national and household food security. Vulnerable groups comprise those who have limited access to resources and entitlements due to factors associated with resource degradation, gender inequality, age and physical disability, and the emerging colonies of squatter families in urban and peri-urban centres who lack the communal or social resources which are relatively available to vulnerable rural families. These problems resulted from past economic, social and infrastructure development policies that failed to recognise or build on Vanuatu's own very dynamic customary institutions that provide food security and socio-economic stability to the traditional communal family system.

The relative declines and fluctuations in overall and per caput food and agricultural production are particularly serious. Agriculture is the source of livelihood for over 80% of the population living in rural areas, and agriculture has the potential not only to supply food and cash income but as a means of employment and livelihood. Under investment in agriculture will worsen household food insecurity. The insecure land tenure systems and mounting unresolved land disputes, and natural disasters (29 cyclones in 15 years, drought and infestations) further contribute to vulnerability in food security. The instability of food production and agricultural exports are further influenced by volatile prices in both product and factor markets and the relatively low levels of agricultural productivity and returns to labour.

Increasing the productivity and income of traditional subsistence and commercial smallholder and plantation agriculture, and improving its potentials for diversification and modernisation within the framework of population and unemployment pressures, land tenure insecurity and vulnerability to disasters, constitute the most important challenges to the

development of rural economy of Vanuatu. By 2010, Vanuatu's population will increase to 268,000 people with a potential labour force of more than 126,000 people. Unless the Government succeeds in implementing responsive education, health and population policies, the pressure on food security and sustainable livelihood will rest on the agricultural sector. Furthermore, the impact of deforestation, watershed mismanagement, unsuitable agricultural practices, soil degradation, accelerated commercial development and damaging encroachment on upland, steeply sloping and near shore marine areas, ecologically vulnerable areas, lagoons and coral reefs cannot be underestimated. Political stability, vigorous investment in agriculture and GoV's commitment to policy and sectoral reforms are vital elements of success.

The Government has identified a number of key constraints to overcoming these challenges:

- (a) Widespread lack of skilled Ni-Vanuatu and severe shortage of experienced and qualified staff at all levels of Government and private sector.
- (b) Disputes over the ownership of customary lands coupled with lack of security of tenure on, and non-commercialisation of customary lands.
- (c) Poor implementation of integrated and holistic food security, health and nutrition policy and action plans
- (d) Inadequate resource allocation to the agricultural sector to fulfil its strategic role as provider of food supply, fodder and fuel, employment, foreign exchange and suitable environment for human life. The share of public resources to the MAQFF has been limited to 3-5% the national budget in during the last 10 years.
- (e) Direct government involvement, interventions and competition with private sector in agricultural trade (factor and product market) as well as constraining regulatory barriers to private sector participation and investment, resulting in waning investors' confidence in the economy.
- (f) Lack of comprehensive water resources development and irrigation policy coupled with vulnerability of fresh water resources to wasteful use, unsustainable farming practices, degradation and pollution.
- (g) Lack of sustainable management of natural resources (forest, fisheries) and land use-planning policy covering all types of lands.
- (h) Low productivity, non-remunerative employment and limited diversification of subsistence production system resulting in limited dynamism and intensification of the agricultural sector.
- (i) Limited product and market diversification and investments in crop, livestock, fisheries and forestry production, as well as in agro-industries and agribusiness sectors (transport, post-harvest, processing, communications);
- (j) Slow development in the rural financial market particularly in improving access to rural credit, savings mobilisation and development of new financial

instruments and capital markets to encourage agricultural and agro-industrial investments.

- (k) Lack of advisory services to entrepreneurs in the food industry sector.
- (l) Institutional weakness. There is a need to improve the skills, procedures and funding of government agencies.

Strategic Options: The search for food security and sustainable modern agriculture depends on responsive policies, correct price signals, and harmonious relationship amongst the Government, the private sector and the farming and fishing community. A policy-led and freer market strategy must focus on the removal of policy constraints, uncertainties and inconsistencies and market failures. Such policy environment will lead to economic reforms and sustainable agricultural growth and investors' confidence. Quick yielding actions are essential for addressing the food security and nutrition concerns (particularly rising income inequality and unemployment), and laying the foundation for sustained long term growth and development of the agricultural sector. The agriculture sector of Vanuatu requires an investor-friendly policy environment, robust public sector investment, (particularly in technology, infrastructure and information systems) and a field-action programme aimed at mobilising existing institutions and resources towards more efficient delivery of technology and support services to the farming, forestry and fishery sectors. The Government needs to intensify its collective efforts and partnership with the private sector towards products (beef, kava, squash, traditional and organic foods) and market diversification (e.g. seasonal comparative advantage and ethnic market) in ways that will be competitive with the open and deregulated markets of Australia, New Zealand, Papua New Guinea, Fiji, New Caledonia and other Pacific Island economics, North America and dynamic Asian countries. Vanuatu has to implement sustainable approaches for generating higher returns from their natural capital in fishery and forestry resources. Disaster mitigation measures and cyclone-proofing strategies are essential to moderate the adverse impact of natural disasters.

As a small country, Vanuatu suffers from the vagaries of severe price fluctuations, general long term structural decline in commodity prices and global competition for its principal export commodities (copra, cocoa, beef and squash). The country requires flexible coping mechanisms, namely: (a) dramatically improve the levels of production and marketing efficiency to ensure high profitability and returns to labour; (b) develop value adding upstream processing of its export crops (e.g. coconut oil and cream, chocolate and confectioneries for cocoa, pharmaceutical products from kava, processed beef and beef products); and (c) further diversify both the production and marketing systems to provide farmers with greater flexibility to respond to price signals. In the pursuit of such strategies, the GOV has to address the wide disparities in levels of agricultural and infrastructure development, in market access, investment, income and employment opportunities between Port Vila and Luganville vis-à-vis the outer islands of Vanuatu. The GOV will also phase out all distortionary subsidies and grants to the agricultural sector and replace it by agribusiness promotion and market creation initiatives. Reforms in the rural financial market will emphasise on rural savings mobilisation and linking banks with self-help production and marketing groups as well as on enabling farmers and fisherfolks to have access to new financial instruments and services of financial institutions, particularly the Vanuatu Development Bank. The relative comparative advantage of the booming beef cattle industry will be further strengthened. The bottom-up participatory and consultative process to the identification and removal of constraints to farming systems and agribusiness development will be operationalised.

The development strategy focuses on the intensification and diversification of the subsistence customary production system with special emphasis on increasing the levels of productivity and returns to labour. An improved system of food storage and preservation especially for seasonally produced foods and an updated and properly enforced legislation on food quality and safety are essential. The plantation and commercial agricultural sector will be supported through liberalisation of trade policies, stringent food quality and safety measures, development of agro-industries, creation of markets and modernisation of technology, post harvest, sanitary and phyto-sanitary measures and processing systems. Both systems offer the greatest potential for growth and diversification. The growth in the agricultural sector will result from favourable macroeconomics fundamentals and sectoral policies, and producers' response to price signals for specific crops, livestock (particularly cattle, hogs and poultry), forestry or fishery commodity. The country can develop relative comparative advantage based on market signals and new niche market (seasonal or ethnic) opportunities which will dictate shifts in output composition, area expansion and demands for productivity improvements. The code of conduct for logging will ensure that logging and reforestation practices comply with international standards. Sustainable and community-based fishery resources management, and the rationalisation of the tuna fishing industry will boost its contributions to food security and sustainable growth of the economy.

Indicators of poverty, food insecurity and inequality at the national and provincial levels are scanty and unavailable in Vanuatu. There is little current information on income distribution and practically no information on household income and expenditure patterns particularly on food. A food security and nutritional surveillance and information system, an updated legislation on food quality and safety, and social safety nets for food insecure groups (feeding, nutrition *fares*, and employment schemes) are essential to effectively address food insecurity and malnutrition issues in Vanuatu.

Concrete measures and actions are premised on a strategy, which focuses scarce public resources on policy, programme and investment areas where the Government has, or can immediately develop, a comparative advantage. Since the farmers and fisherfolks are the ultimate determinant of the sector's dynamism, the Government has the responsibility to provide conducive environment that unleashes investment decisions and productive initiatives in agriculture, forestry and fisheries. In certain cases, they need to help the farmers and fisherfolks in areas where they cannot help themselves or get assistance from the private sector. By putting in place the enabling sector policy and strategy framework and institutional arrangements, the farmers and private sector are encouraged to quickly respond to price signals and make sound investment decisions.

Public investments are required in technology development and transfer schemes. This calls for strengthening the research, extension and farmers' training through effective farmers', researchers' and extension workers' dialogue at the farm and grass roots levels. Vital support services (e.g. access to investment information, credit and market) and rural infrastructure (roads, transport, communication, market and post-harvest feasibilities) are essential area for greater investments in the agricultural sector. Public investment is required to improve the technical and management capacity of the operating departments of MALFF in policy analysis, statistics and computerised data base, programme and project formulation, benefit/costs analysis, input and output monitoring and evaluations. Based on bottom-up planning and participatory analysis of existing subsistence and commercially-oriented farming systems, specific constraints, opportunities, options and related risks and adversities will be identified

and considered in the formulation of sustainable food security, agricultural development and natural resources management.

C. Project Interventions: Income Generation Activities

I. Development of Rural Butchery Businesses in Outer Island Rural Areas

In the outer island rural areas of Vanuatu there is a lack of properly equipped and correctly operated rural butcheries. Currently livestock such as cattle are killed and processed in unhygienic conditions and without refrigeration. Butchery operators often have little if any knowledge of food safety and disease recognition.

The current situation means that food safety is a significant concern. Also the poor availability of consistent local meat supplies means that food security in rural areas is poor, and that protein sources are often derived from expensive imported canned beef or poultry products.

The proposed project would help to address these issues by carefully identifying individuals and cooperatives in 4-6 different rural areas that have an interest in establishing a butchery business, and then assisting them to develop a sustainable business through the provision of suitable equipment and training.

Sufficient in-country expertise exists to carry out the required training. All costs are freight inclusive.

Local Contribution

- Vanuatu Government (Quarantine and Inspection Department) will provide labour component for site assessment, supervision of construction, training of participants on site and in a central abattoir/butchery, follow up visits, and will conduct food safety awareness workshops in villages nearby to selected butchery sites on each island.
- Local village participants will provide labour and land rental.
- Both the participants and the Vanuatu Government will provide storage for project materials and equipment where needed.

Success Indicators

- Increased availability and consistency of supply of local meat as a food in rural areas where currently no meat processing businesses exist.
- Improved food safety for local community through improved meat hygiene standards and knowledge of food safety principles by those involved in meat processing.
- Improved animal disease monitoring in rural cattle herds.
- Improved food safety for members of local communities through conducting awareness workshops in nearby villages on food safety.

- Improved market conditions and incomes for local cattle farmers
- Expansion of local economic activity in rural areas concerned and improvement of incomes of participants.
- Contribution towards sustainable rural development through utilisation of rural Vanuatu's agricultural resources.

II. Development of Agro-Forestry to Enhance Food Security

Forests and forest products are an important source of food, fuel, timber as well as a revenue entity for communities living in vicinity of forests. It was estimated that more than 80 percent of Vanuatu's 200,000 population living in the rural areas depend on forests and its resources for their daily needs. This has already indicated the importance of forests' contribution towards food security.

Forest industries have played an important role in Vanuatu's economy. It was estimated that up to 1,500 people have been employed in the industry, while the National Statistics data indicated that forest products was third in the 2001 total exports as a single sector, representing more than VT334 million. There is concern that the forestry sector might be under developed, and its full potential not fully realized by the forest communities. This project is intended to further explore areas that will enhance community participation as primary beneficiaries from improved forestry management practices.

Local Contribution

Local contribution will include:

- Provision of land,
- Provide free labour,
- Assist select and manage planting stock,
- Nursery management and maintenance,
- Data collection and analysis, and
- Storage of project supplies and equipment.

Success Indicators

- Increase awareness of agro-forestry system on small islands;
- Increase supply of fruits and nuts available for consumption;
- Income generation opportunities established through sell of excess fruits and nuts;
- Multiple land use to increase productivity;
- Increase fuel wood supply;
- Reduced time required for fuel wood gathering, thereby resulting in more time available to other things;
- Increase income generating opportunities through sell of excess fuel wood;

- Establish appropriate agro-forestry systems, which increase productivity;
- Communities are well informed of the best practices;
- Income generation opportunities through best practices; and
- Communities are informed on techniques and practices important to sustaining/maximizing on limited resources.

III. Production of dehydrated root crop products

This project aims at developing solutions for dehydrating locally produce rootcrops and transforming them into pellets and/or chips or flours. It also aims at strengthening the technical support to the private sector involved into the importation and trade of starch based products (starch, flour and rice) in order to develop local substitutes.

The cultivation of cereals such as rice, corn or wheat in a large scale is not recommended in Vanuatu because of serious technical constraints. It is however, possible to develop the cultivation of root crops (manioc, sweet potato, yams and taros) that can also produce starch. The local processing of these root crops could offer to Vanuatu an opportunity to substitute imports with locally grown starch and to open new markets for local farmers. The technology involved in the processing of root crops is well known and can be rapidly adapted to Vanuatu conditions. The private sector is however reluctant to invest in such projects because imports represent a convenient and highly lucrative activity.

It is likely that if the demonstration was made that the alternative is viable, the private sector could purchase local root crops and process them into flours, and/or noodles. These flours could be partly used for mixing (up to 30%) with the imported wheat flour for baking so that the annual imports are reduced. These flours could be also be used by commercial bakeries and/or private persons to produce flour-based products. Finally, these locally made flours could be used to produce noodles, which are increasingly popular in Vanuatu. Pellets could be produced for animal feed (poultry and pigs) as well.

Local Contribution

- Local contribution includes 30% of the working time of 5 field assistants working for the Department of Agriculture.

Success Indicators

- Transfer of know how to 5 women communities in 5 different islands of Vanuatu
- Increased post harvest treatment of locally grown root crops
- Development of 5 local small-scale enterprises managed by women (village mills)
- Production of flours for human consumption and of pellets for animal feed
- Possible substitution of importations in the long term