



::: **emergency** needs assessment branch

Timor Leste:

Market Profile for Emergency Food Security Assessments

**Strengthening Emergency Needs
Assessment Capacity (SENAC)**

April 2006

Timor Leste: Market Profile for Emergency Food Security Assessments

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EXECUTIVE SUMMARY

Timor-Leste is the newest and one of the poorest nations in the world. Its rural development and food security were significantly affected by violence following the August 1999 referendum that voted overwhelmingly in favour of independence. Nearly 40 percent of the population live below the poverty line, and 50 to 70 percent of rural households suffer chronic food insecurity. All regions of Timor-Leste are prone to food deficits, but food insecurity is more prevalent in upland rural areas, especially during the November to March lean season.

Agriculture dominates the economy of Timor-Leste: farming is the main source of income for more than 80 percent of rural households. Rice and maize are the staple foods. Current agricultural production is still dominated by low-input/low-output subsistence farming systems, with each household cultivating a range of produce, including cereal, livestock and cash/garden crops. At an average 1.5 mt/ha from 2001 to 2005, the paddy yield in Timor-Leste is less than one-third of Viet Nam's 4.6 mt/ha and Indonesia's 4.5 mt/ha. The maize yield is the lowest in Asia, at 1.2 mt/ha compared with an average 3.9 mt/ha. Crop production is restricted by the limited irrigation system, low fertilizer usage and recurring climate features, which are strongly influenced by El Nino and the southern oscillation cycle.

The district-level cereal balance shows that five of the country's 13 districts attained the minimal cereal requirement through their own production in 2004/2005; eight did not. The mission confirmed that national cereal production in 2005 declined significantly as a result of severe nationwide drought. In some districts, especially Oecussi, maize and rice were damaged by floods and strong winds during the February 2006 harvest.

Since independence, the agricultural market and trade have undergone significant changes. Centralized collection and distribution systems regulated by the national logistics system, BULOG, during the Indonesian period have been replaced by a free trade and market systems. Stringent quantitative restrictions on imports have been replaced by very low tariffs for major agricultural products. There has been limited government involvement in agricultural marketing and trade. Farmers no longer enjoy subsidized, cheap agricultural inputs, such as fertilizer, or guaranteed government purchase prices. The government strategic grain reserve/stock has also stopped operating.

Timor-Leste has imported rice for many years. Annual rice imports of 35,000–40,000 mt between 2000 and 2002 increased to 55,831 mt in 2004. Most rice has been imported from Viet Nam and Thailand in recent years. The country's dependence on cereal imports has increased from 20 percent in 1990 to 30 percent at present. Under the new system, private traders have gradually replaced the BULOG functions, performing well in rice imports and domestic distribution in Dili, district and sub-district markets. At the sub-district level, imported rice is marketed through small traders who buy directly from importers in Dili and sell to local consumers. Rice prices in domestic markets are determined mainly by international rice prices and international and domestic transportation costs.

Free trade has increased food availability during the lean season and throughout years when natural disasters cause significant domestic production failure. Although there were severe droughts and significantly reduced local production in 2005, cereal market prices remained relatively stable in markets at all levels, reflecting the availability of imported rice.

Free trade with low tariffs for rice imports has depressed the prices of domestically produced rice and maize, however, diminishing the large gap between domestic and world prices for cereal. Subsistence farmers have been exposed to international competition with high productivity and

strong government support. Although free trade is good for the urban poor, food security for subsistence farmers – more than 90 percent of the rural population – has been negatively affected by imported cheap rice. As subsistence producers, they produce for consumption, but sell a portion of their crops to meet cash needs for family goods and medical and school fees. There is significant risk for households that sell their strategic food, especially when crops fail. As consumers, the benefits of cheap rice for these households are very limited owing to their limited purchasing power. Monthly data show that the rice import pattern has not followed monthly rice import requirements or production–hunger seasons, implying that farmers’ food deficit during the lean season has not been met by imported rice. Household survey data indicate that in the absence of purchasing power, almost all households either change their diet to low-quality food or skip meals when faced with insufficient food. The mission found that most rural households could buy rice and maize only in small amounts, measured by small tin cups, which are more costly than larger quantities.

There has been no rice smuggling to Indonesia since 2003 because of tightened border control. A special bilateral agreement for rice and cattle trade across the border between Timor-Leste and West Timor was signed in 2004. The territory and maritime borders with Indonesia are controlled by the Customs Service, the Border Patrol Unit and the Maritime Police.

The major cash crop in Timor-Leste is coffee; production involves almost 25 percent of rural families, providing them with major or minor annual incomes. Almost all the coffee produced is sold on the international market, generating more than 90 percent of non-oil export income. As for cereal production, coffee farming is low-input/low-output; yield is low and varies from year to year owing to climate variations. Coffee producers and exporters have suffered from falling global market prices in recent years, especially 2002 and 2003. Trade data show a recovery for 2004 and 2005.

Poor post-harvest practices are key causes of poor rice quality and high losses. Rice milling is available, but is of poor quality. Rice is stored as paddy in drums or in traditional storage containers in farmers’ houses. The marketing service is poor. Microfinance is lacking, and private bank interest rates are reportedly high. Telephones and the Internet are available, but very expensive. There is no administrative mechanism to run and develop markets.

Roads and transport infrastructure are poorly developed and badly damaged. Traffic conditions in mountain areas are poor, requiring four-wheeled vehicles. The typical distance from farm gate to mountain rural market is more than 20 km. Privately operated motor vehicles provide an effective service for those living along the few transport arteries; others travel on foot or on horseback.

To monitor the food insecurity situation in Timor-Leste, all food market indicators on market availability, market access and the macro-environment need to be regularly updated. In order to make a strong post-shock needs assessment, it is recommended that the following factors be closely monitored: (1) weather and crop growing conditions throughout the domestic rice and maize production cycles in all major production districts; (2) weekly rice market prices in Viet Nam, Thailand and Indonesia; (3) coffee growing conditions in Timor-Leste, and world coffee prices; (4) government production and trade policies; and (5) main stakeholders’ reaction mechanisms to food emergency.

There is almost no national monitoring and data collection system, but with donor support the government statistics and customs offices are recovering. Major traders are also open to exchanging market information. Several non-governmental organizations and United Nations agencies have projects to collect market prices and food production and consumption data; it is critical to work with these and cross-check for data quality.

1. INTRODUCTION

Timor-Leste, the world's newest nation, is a small mountainous country. It is in the top 10 percent of the world's poorest nations and is the poorest in Southeast Asia. Food insecurity is widespread every year. While it was still part of Indonesia, the country's agricultural production and marketing systems were characterized by highly regulated markets, protected through border control and domestic subsidies. This environment changed in 1999, when Timor-Leste voted for independence from Indonesia; since then, there has been only limited government involvement in agricultural production and marketing.

The purpose of this study is to develop a pre-crisis market profile of Timor-Leste in order to strengthen food security assessment capacity in the country, particularly in the event of a crisis. The objectives are to gain a better understanding of how markets function in terms of food security, and to identify critical factors related to food insecurity that need to be closely monitored. The study is part of an ongoing programme of work under the market-related theme of the Strengthening Emergency Needs Assessment Capacity (SENAC) project conducted by WFP.

This market profile describes the structure and functioning of international and domestic food markets, especially for cereals. It is based on a desk review of relevant literature and on information collected during the mission's visit to Timor-Leste.

Dr Cheng Fang, an economist in the Economic and Social Department of the Food and Agriculture Organization of the United Nations (FAO), and Dr Issa Sanogo, Emergency Assessment Officer (Markets) in WFP's regional bureau in Bangkok, visited Timor-Leste from 22 October to 5 November 2005, covering ten of the country's 13 districts. The mission started with a discussion at the WFP office in Dili and a briefing with the Minister of Agriculture of Timor-Leste, which were attended by Mr Chana Opaskornkul from FAO. Interviews were held with market agents such as traders, wholesalers, retailers, transporters, processors, producers and farmers selling their produce. Meetings were organized with central and local government officials, including the Ministry of Agriculture, the Statistics Office and the Customs Service. The team also met local and international non-governmental organizations (NGOs) such as World Vision, the Cooperative for Assistance and Relief Everywhere (CARE), Oxfam and the German Agency for Technical Cooperation (GTZ) and the United Nations Development Programme (UNDP), the World Bank and the United Nations Office for Project Services (UNOPS) office in Anairo. All site visits had strong logistic and staff support from the WFP country office in Dili.

2. OVERVIEW OF MACROECONOMIC AND SOCIAL SETTINGS AND THE FOOD SUPPLY AND DEMAND SITUATION

2.1 Overview of macroeconomic and social settings

Timor-Leste became independent on 20 May 2002. After 24 years of Indonesian occupation, in 1999 the people of East Timor voted overwhelmingly in favour of independence. Following the ballot, however, violence erupted throughout the country, causing the displacement of more than 75 percent of the population and the destruction or damage of about 70 percent of physical infrastructure. Violence ended with the intervention of a United Nations-led international military force in September 1999. Government functions were gradually transferred to the Timorese between October 1999 and May 2002.

For administrative purposes, Timor-Leste is divided into 13 districts and 67 sub-districts. Agriculture contributes 30 percent of non-oil gross domestic product (GDP); more than 90 percent of the population – 924,642 in the 2004 census – rely on agriculture and the subsistence economy for their livelihoods. According to International Monetary Fund (IMF) estimates, nominal GDP in 2003 was only US\$341 million and annual per capita income less than US\$445. More than 40 percent of the population live below the poverty line.¹ On 4 December 2003, the United Nations General Assembly endorsed the Economic and Social Council's recommendation that Timor-Leste be added to the list of least developed countries.

There are large disparities in living standards between urban and rural areas and between western and eastern districts. Findings from the 2001 Timorese Living Standard Measurement Survey reveal that about 44 percent of the rural population live below the poverty line, compared with 25 percent of urban dwellers; poverty incidence is about 30 percent in the east region and 46 percent in the west.² The three eastern districts of Baucau, Lautem and Viqueque have 25 percent of the national population, but less than 20 percent of the poor; the three western districts of Oecussi, Bobonaro and Cova Lima have about 20 percent of the population and 25 percent of the poor.

Timor-Leste adopted the US dollar as its legal currency, instead of the Indonesian rupiah, in January 2000. The Central Payments Office of Timor-Leste has been transformed into the national Banking and Payments Authority. By adopting the US dollar, Timor-Leste avoided currency convertibility and supply issues during the early stages of development. Based on comments from grain traders, introduction of the US dollar had a positive impact on grain transactions because it eliminated costs associated with exchange movements. Use of the US dollar had negative impacts on agricultural marketing in rural areas, however, particularly regarding the differentiation of coins owing to longstanding familiarity with the former currency. Barter trade is very popular in rural areas because cash is lacking.

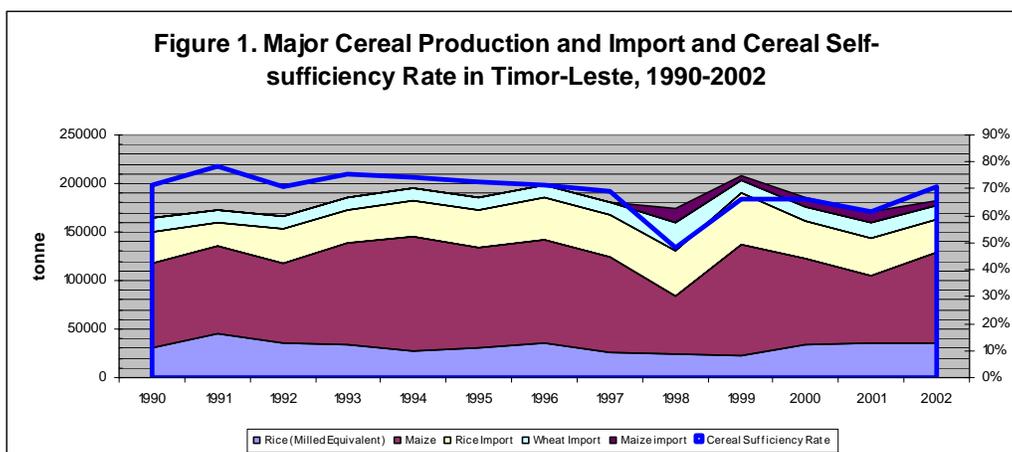
2.2 Agriculture, food self-sufficiency and food security

Farming is the main source of income for more than 80 percent of rural households in Timor-Leste. Of a total land area of approximately 14,500 km², 600,000 ha is suitable for crop and livestock production. An estimated 122,000 ha is arable, including land for growing cereals, temporary meadows for mowing or pasture, land under kitchen gardens and land temporarily fallow for less than five years (FAOSTAT). Average cultivable land per farmer is about 0.9 ha.

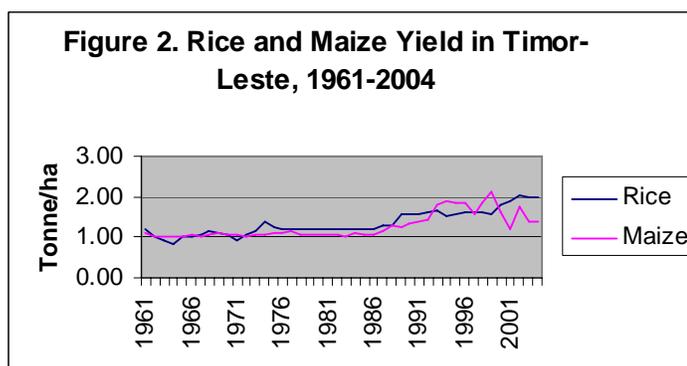
The major cereals are maize and rice. The annual maize output from 1990 to 2002 was about 93,000 mt (Figure 1) from 50,000 ha of harvested area. Rice production is less than maize, with an average annual output of 32,000 mt from 20,000 ha of harvested area.

¹ EIU, Country Profile 2005.

² World Bank Timor-Leste Poverty Assessment, May 2003.



Source: FAOSTAT



Source: FAOSTAT

Agricultural production is dominated by low-input/low-output subsistence farming systems. As a result, productivity is very low; average yields from 2001 to 2005 are estimated at only 1.50 mt/ha for unmilled rice, compared with 4.6 mt/ha in Viet Nam and 4.5 mt/ha in Indonesia. Maize yields of 1.20 mt/ha are the lowest in Asia, where the average is 3.9 mt/ha (Figure 2). Low productivity and low output have serious implications for the food supply and cereal self-sufficiency. Figure 1 reveals that the country has faced a continuous deficit in cereal production, with cereal self-sufficiency declining from 80 percent in 1990/1991 to less than 70 percent in 2002. The main cereal import is rice, at 40,000 mt annually. For domestic consumption, the country also imports 15 000 mt/year of wheat, which it does not produce itself. Timor-Leste has started to import small amounts of maize in recent years.

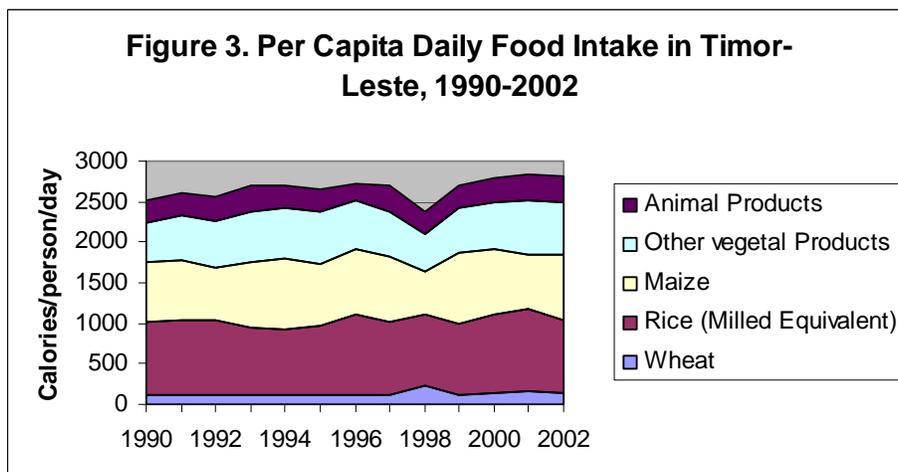
Livestock production is predominantly small-scale and integrated into individual household farming systems. Except for large herds of cattle, buffalo, sheep and goats, households typically hold one or several heads of chickens and pigs. Small animals and pigs are an important source of cash; large animals are considered family assets.

Animals are generally reared through extensive foraging systems supplemented by household leftovers, crop by-products, etc. Few raw materials are available for the commercial feeds sector; rice bran, a limited amount of maize and copra are the only locally available concentrates for mixed feeds.³

The Timorese diet is traditionally based on rice and maize. Annual per capita rice consumption is estimated at 90 kg, representing an average 34 percent of total calorie intake from 1990 to 2002 (Figure 3); maize consumption of about 105 kg represents 29 percent of total calorie intake, and

³ FAO, High-Value Crops and Products for Timor-Leste, March 2003.

wheat consumption accounts for 5 percent. Consumption of other vegetal products such as cassava, sweet potato, beans and vegetables is small, accounting for 21 percent of total calorie intake. A very limited animal intake of only 320 calories per day reflects low income and a poor standard of living.



Food insecurity is widespread, but more prevalent in upland rural areas; food shortages are common between November and March, because of crop growing patterns. Vulnerability to climatic variability and natural disasters, low yields of staple crops, high post-harvest losses, low income and limited access to markets are the main underlying causes of food insecurity.⁴

As subsistence producers, farmers produce for consumption, but sell portions of their crops to generate cash for family goods and medical and school fees. The joint household survey of 2001 shows that there is a risk for households selling strategic food, especially when their crops fail.⁵ When food is lacking, almost all households reduce their food budget by altering the quality and variety of food consumed, from rice or maize to tubers; almost all households also have to skip meals. As a last resort, households sell livestock and other farm assets.

3. INTERNATIONAL TRADE AND INTEGRATION

3.1 Trade policies: before and after independence

Centralized and strict border control trade policies before independence

Under the pre-independence Indonesian system, the agricultural economy in Timor-Leste was heavily regulated by a centralized collection and distribution system controlled by the national logistics agency, Badan Urusan Logistic (BULOG). At the provincial level, the system was implemented by the provincial Depot Logistik (DOLOG). Rice imports were controlled by quantitative restrictions, to maintain a floor price at the farm level and ceiling prices in the market place. Indonesia's domestic rice prices were higher than world prices. The major policy instruments used were:

- 1) monopoly control over international trade;
- 2) access to an unlimited line of credit at heavily subsidized interest rates in the early years, and at commercial rates with Bank of Indonesia guarantees in later years;

⁴ FAO/WFP, CFSAM, 2003.

⁵ World Bank, Timor-Leste Poverty Assessment 2001.

- 3) procurement of as much rice as necessary to lift the price in rural markets to the policy-determined floor price;
- 4) extensive logistics facilities, including a nationwide network of warehouses, permitting the seasonal storage of substantial quantities of rice, including 1 million mt for the “iron stock” considered essential for Indonesia’s food security.

For 25 years before 1999, Indonesia did not apply tariffs to rice as a key part of its food policies; instead, imports were controlled by restrictions on quantity. BULOG had a monopoly on imports of rice, sugar, wheat, maize and soybeans to help hold domestic prices at policy-targeted levels.⁶ Average domestic prices of rice were slightly lower than world prices between 1975 to 1985, and slightly higher in the following decade. In 1998, the implicit level of protection was about 25 percent – an implicit tariff rate of 25 percent⁷ – as a result of falling world rice prices and fluctuating Indonesian exchange rates.

Free trade system after independence

After independence, Timor-Leste adopted a new simple trade system from March 2000: a 5 percent import duty on all goods, plus a lump sum for some luxury and other goods; a 5 percent income tax; a 5 percent sales tax; and a 5 percent presumptive tax on coffee exports. All traders have equal access to rice imports with no monopoly, and everyone pays the newly imposed tariff. Under the new trade regime, all quantity restrictions have been removed.

The new import policy meant that producers lost most of their protection and the new government benefited from the tariff without paying subsidies to farmers and consumers. Consumers benefited from low prices.

The free trade policy has had a differential impact on the country’s food security indicators: negative for the rural poor as food producers, but positive for the urban poor as net food consumers. Poor rural food producers without subsidies cannot compete against more competitive rice exports owing to their low productivity and relatively high production costs. As subsistence producers with limited alternative income sources, they have to sell portions of their crops for cash requirements; as consumers their benefits from the imported cheap rice are very limited because of their lack of purchasing power.

Many jobs in the Indonesian public sector disappeared at independence. Under- and unemployment are a concern for many people, and many families now depend completely on farming.⁸ The net impact on these families depends on their income sources and the importance of farming income to them. Vulnerability analysis and monitoring of the employment situation and of world rice market production and prices are therefore critical.

The 5 percent import duty for rice and other goods was increased to 6 percent in 2002. The new tariff lines since 2002 are summarized in Table 1.

⁶ BULOG’s functions in Indonesia have also been changed in the last few years. BAPPENAS/USAID/DAI, Policy Briefs, 2005.

⁷ BAPPENAS/USAID/DAI Food Policy Advisory Team, Rice Tariff Policy, August 1999.

⁸ World Bank, Timor-Leste Poverty Assessment 2003.

Table 1. Tariffs for selected consumption goods in Timor-Leste

Goods/commodity	Tariff (proportion of value)	Goods/commodity	Tariff (proportion of value)
Rice	6%	Raw hides, leather, furs and related products	12%
Wheat flour	6%	Vehicles and related parts and accessories	12%
Milk	0%	Photographic and film	12%
Sugar	12%	Air conditioners	12%
Fruit juice	12%	Refrigerators	12%
Fresh beverages	US\$0.65 per litre	Dish-washing machines	12%
Beer	US\$1.90 per litre	Cell phones	12%
Wine	US\$2.50 per litre		
Liquor	US\$8.90 per litre		
Tobacco	US\$19.00 per kg		
Perfumes	18%		
Cosmetics	12%		

Source: Interview with Timor-Leste customs offices.

Note: These tariffs have been effective since 2002; milk is exempted because it feeds children; consumers pay no taxes, including value-added tax (VAT); there are no quotas and no restrictions on imports; food products held by the Ministry of Agriculture are subject to quarantine control; 5 percent export taxes on exports – coffee, vanilla and camomile – were abolished in 2002; an average of at least 6.5 days are required to clear all customs procedures owing to the lack of officials.

Tightened security stopped smuggling to Indonesia in 2003; there is a special treaty at the territorial borders with West Timor, Indonesia.

The land and maritime borders with Indonesia are controlled by the Customs Service, the Border Patrol Unit (BPU) and the Maritime Police. The mission visited the customs in Dili and BPU in the borders close to West Timor. Both government agencies stated that the smuggling of agricultural products has stopped since 2003. There may still be some smuggling of non-agricultural products by sea. The quantity of smuggled goods has declined significantly and is very low, according to information from customs officials. Official trade figures now provide far more reliable estimates of commercial imports and cereal balances.

There is a special border trade treaty at the Mota-Ain Immigration Post on the frontier with West Timor, in the sub-district of Batugade, district of Covalima:

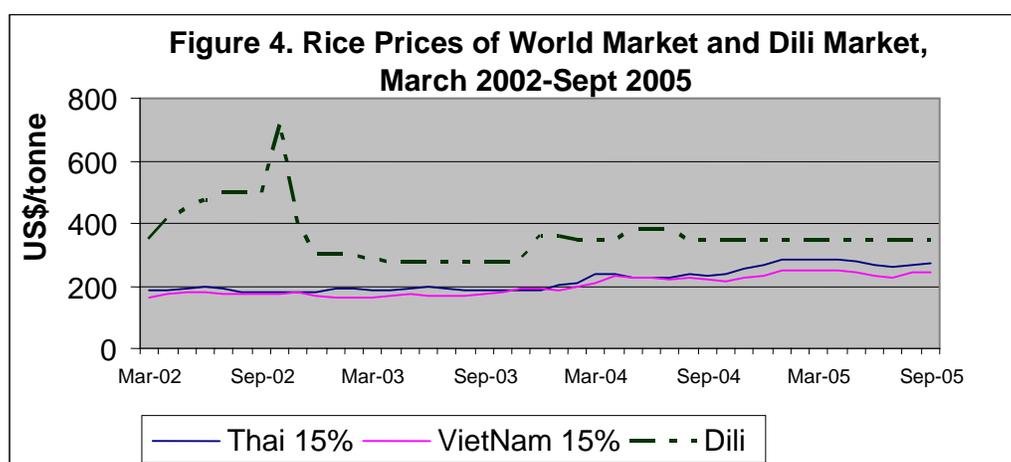
- 1) In 2004, a bilateral agreement was signed with the Government of Indonesia allowing trading of cattle from Timor-Leste to Indonesia across the border.
- 2) Imports of fewer than five head of cattle are considered non-trade imports, and no duty is levied.
- 3) Trading of more than five head of cattle is considered commercial trade, subject to the normal duties.
- 4) Exports of cattle to West Timor, Indonesia have increased since the cattle trade agreement was signed.
- 5) Passengers from Indonesia are allowed to bring one bag of rice into Timor-Leste, duty free. All rice imports of more than one bag should go through Dili port.

3.2 Integration into the world market and rice imports

The domestic market has been integrated into the world market since 2003; the domestic rice price is not affected by domestic supply shocks

Figure 4 presents the retail rice prices in Dili, Viet Nam and Thailand. The rice market was disrupted in 2002 during the transition period in Timor-Leste. This was partly because of the effects of local production on local rice prices, and also reflects local isolation and pricing independence resulting from the lack of institutions and facilities to take over the functions of DOLOG. As private

traders started to function, however, rice prices in Dili started to change in line with international rice prices and were integrated into the world market. The market was only slightly affected by the lean season of 2003/2004, when Timor-Leste suffered from severe drought, resulting in a 21 percent drop in cereal production in 2003.⁹ Shortages of supplies during the lean season do not affect either wholesale or retail prices; these depend instead on international prices because of the availability of imported rice on the markets. The rice price in Timor-Leste is mainly determined by rice prices in the markets of exporting countries' such as Viet Nam and Thailand, ocean freight and insurance costs, and import duties. The detailed cost breakdown of imported rice is described in the following section.



Source: Monthly Dili prices are from World Vision, 2002 and 2003, and national statistics for 2004 and 2005; monthly Thai and Vietnamese prices are from GIEWS/FAO.

Cost breakdown of imported rice

Table 2 gives a cost breakdown for imported rice in Dili. Data were collected during interviews with importers in Dili during the first week of November 2005. In Viet Nam, the rice free on board (f.o.b.) price – the market value of rice at the customs frontier of an exporting country – was US\$250. The rice cost, insurance and freight (c.i.f.) price in Dili was US\$267, including all insurance and freight charges incurred up to that point, before in-country import duties or other taxes on imports or trade and transport margins are added. The rice wholesale price was US\$303 and the final retail price was US\$309. Owing to the increasing number of trading companies and the more competitive trade environment, both importer and retail margins were reported at a very low less than 1 percent.

Table 2. Cost breakdown of imported rice from Viet Nam in Dili, November 2005¹

Cost	Rate	US\$/mt
Viet Nam f.o.b price at port		250
Dili c.i.f value at port		267
Basic import duty and tax	6% of c.i.f. and additional 6% tax	32.9
Landed cost		300
Importer margin	< 1%	3
Invoice price		303
Wholesale price		303 (or 11.60/bag of 38 kg)
Distribution cost		3
Distributor margin	0% of distribution cost price	
Retailer cost price		306
Retailer margin	< 1% (US\$0.15/bag of	3

⁹ FAO/WFP CFSAM, 2003.

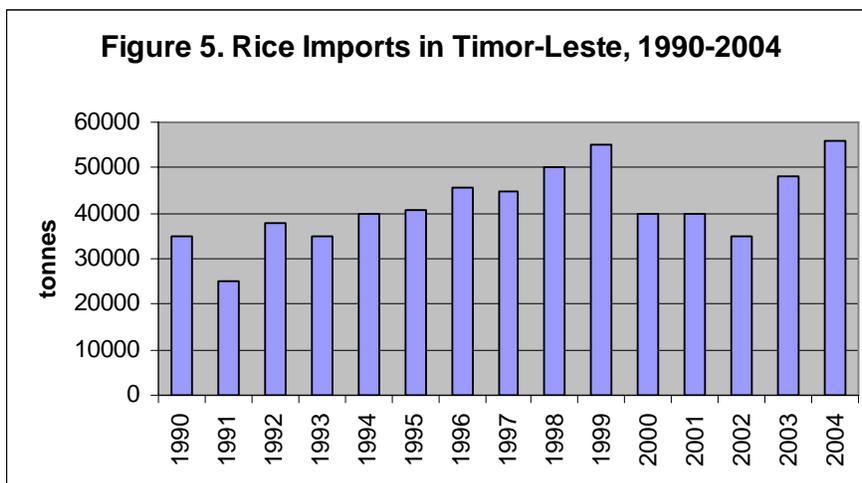
	38 kg)	
Retail price in Dili		309 (or 11.75/bag of 38 kg)

Source: Interviews, October/November 2005.

¹Wheat and maize imports follow the same structure; the cost structure for imports from Thailand is also similar.

Timor-Leste has been a rice importer for many years, importing averages of 36,000–56,000 mt

Before independence, cereal production in Timor Leste was not sufficient to meet its consumption needs. Following national food security policies, including distributions to rice-deficit areas, the rice distributed to Timor-Leste from other Indonesian provinces increased steadily from 36,000 mt in 1990 to 55,000 mt prior to 1999, according to FAO data (Figure 5).

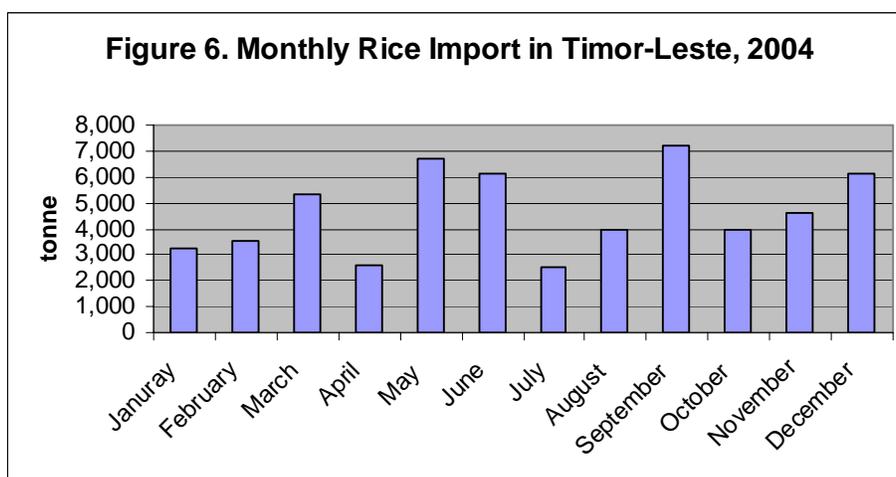


Source: FAOSTAT and National Statistics of Timor-Leste.

Following independence, the regulated rice market and distribution system suddenly stopped operating; most gaps between production and consumption of rice and maize were filled by imports from international markets through private traders and international donors and by informal cross-border trade from Indonesia, which has been restricted since 2003. Annual rice imports for 2000 to 2002 are estimated at a low 35,000 to 40,000 mt. Although rice prices increased, rice imports rose again in 2003, increasing to 55,831 mt in 2004.

The monthly rice import pattern does not follow monthly rice import requirements

Monthly rice imports for 2004 are shown in Figure 6. Surprisingly, there is no pattern for imports over the year; many people believe that imports should be consistent with the food lean season from November to March. The trade pattern may indicate that: (1) the rice consumers who buy rice from the market are not grain producers; and (2) market transactions for locally produced cereal are very limited, so seasonal production does not influence market supply and demand. The pattern also implies that farmers/producers have very low purchasing power and weak capacity to deal with food shortages during the lean season. Household survey data indicate that in the absence of purchasing power, almost all households either change their diet to low-quality food or skip meals when faced with insufficient food. Food security is closely tied to obtaining good rice and maize crops; international food assistance during the lean season and when crop failures occur would make a valuable contribution to food security for the rural poor in Timor-Leste. This is discussed further in the next section.



Source: National statistics.

Most rice is imported from Viet Nam, Indonesia and Thailand

In recent years, rice has been imported from Viet Nam, Indonesia, Thailand, the United States, Australia, Singapore and Japan. In 2004, 63 percent came from Viet Nam, 26 percent from Indonesia and 9 percent from Thailand (Table 3). The main reasons for importing from Viet Nam are that prices are low and supplies are stable.

Table 3. Rice imports by country of origin in Timor-Leste, 2004

	Volume		Value		Unit price
	mt	%	\$US	%	\$US/mt
Viet Nam	35 036	62.8%	4 984 676	60.9%	142
Indonesia	14 318	25.6%	1 955 000	23.9%	137
Thailand	4 806	8.6%	763 938	9.3%	159
USA	1 002	1.8%	319 379	3.9%	319
Singapore	143	0.3%	65 885	0.8%	462
Australia	388	0.7%	63 467	0.8%	164
Japan	138	0.2%	32 705	0.4%	237
Total	55 831	100.0%	8 185 050	100.0%	147

Source: National Statistics of Timor-Leste.

There are several rice importers in Dili; TimoFood is the largest, with a share of about 70 percent

There are several rice importers in Dili, Timor-Leste, including TimoFood, Fuxxibel, Lorosae Imports, Toko Lay, Tropical Imports and Ching Fa Ho. They compete for a total 4,000 mt of rice imports per month. The mission visited TimoFood, the largest rice trader in the country with a market share of 70 percent of total national imports. Under the brand name Globus, TimoFood imported rice on a small scale during Indonesian times, but has expanded its operation significantly since 2000. According to the owner of TimoFood, it operates on very tight margins, and TimoFood's prices/costs are the major factor in determining prices on the Dili rice market.

Wheat flour imports

There is no wheat production in Timor-Leste; wheat needs are met through imports. The annual wheat flour import is about 15,000 mt, and has not changed significantly over the last ten years according to FAO data. The tariff and transaction costs are similar to those for rice, as are the importers and customers. A small amount of maize is imported, and none is exported.

4. DOMESTIC MARKETING AND REGIONAL MARKET INTEGRATION

4.1 Background

Before independence, DOLOG managed the marketing of food crops on domestic markets, providing subsidies on fertilizers and guaranteeing floor prices for farmers' output. There was only very limited marketing of food crops by private networks, but markets for cash crops, such as candlenut, copra, coffee, sandalwood and livestock, were more open and involved private traders. Cereal marketing and food security are currently facing serious challenges, the most pressing being the sharp fall in domestic grain prices as the gap between international and domestic prices narrows, and the large increase in fertilizer prices. Rice and maize production costs are reported to be relatively high in Timor-Leste¹⁰ because nearly all inputs – fertilizer, fuel, spare parts, etc. – are imported, and local services, such as labour and land preparation, are relatively expensive. Other challenges are disrupted strategic reserves/stocks, lack of developed marketing networks, poor agricultural marketing services, insufficient access to and the high cost of transport, and the low quality of rice produced, including a high percentage of broken grains.

4.2 Food supply and demand at the district level in 2004/2005

Cereal production could not meet the minimum consumption requirement in eight of the country's 13 districts in 2004/2005

District-level cereal supply and demand in 2004 are presented in Table 4. All districts, except Manatuto, had rice deficits in 2004, implying that there was no surplus for marketing in other districts. Four districts – Viqueque and Manatuto in the east, and Bobonaro and Covalima in the west – nearly reached their minimum requirements. There was a possibility for local rice to be traded in the neighbouring districts of Baucau in the east and Ermera in the west.

Districts in the east, except Baucau, which is the country's second largest city, had maize surpluses. Lautem and Viqueque had surpluses, but of only 6 and 5.5 mt. These surpluses satisfied the maize marketing needs for Baucau, Dili and the west, where four districts were estimated to have maize deficits.

Regarding total cereals, the eastern part of the country shows some rice and maize surpluses above minimum requirements.

Table 4. Cereal production and requirements in Timor-Leste by district, 2004/2005

¹⁰ Stephan, meeting 27/11/03.

District ¹	Population (‘000 people)	Per capita production (kg/person/year)			Balance (mt) ²		
		Rice	Maize	Total	Rice	Maize	Total
Lautem	55.06	63	213	275	-1 494	5 919	4 425
Baucau	104.57	50	61	112	-4 136	-4 580	-8 716
Viqueque	66.43	87	188	275	-208	5 524	5 316
Manatuto	38.58	98	122	220	321	649	970
Manufahi	44.24	59	162	221	-1 350	2 505	1 155
Dili	167.78	0	9	9	-15 023	-16 167	-31 190
Aileu	36.89	15	84	99	-2 754	-773	-3 527
Ainaro	53.63	23	73	95	-3 608	-1 731	-5 339
Ermera	103.17	8	32	40	-8 430	-7 573	-16 003
Liquica	57.45	7	55	62	-4 776	-2 863	-7 639
Bobonaro	82.39	81	112	193	-736	550	-186
Covalima	55.94	80	108	188	-569	173	-396
Oe-Cusse	58.52	54	145	199	-2 118	2 355	237
Total	924.64	41	88	129	-44 883	-16 010	-60 893

Source: Calculated from data provided by the Ministry of Agriculture.

¹ = Sorted by district from east to west in Timor-Leste.

² = Per capita minimal requirements assumed to be 90 kg/year for rice and 105 kg/year for maize. Assumed rice consumption covers only three months, and maize another three months, while the remaining six months entail a need to find other food sources, such as cassava, or to reduce meals.

The supply and demand situation worsened in 2005/2006 because of drought

Cereal production and balances have fluctuated in 2005/2006, as a result of nationwide drought in 2005. The mission’s interviews with stakeholders implied that there were shortages of maize in Viqueque and Lautem, both of which used to be large maize surplus districts. Although there were severe droughts and significantly reduced local production in 2005, cereal prices in the markets were stable, reflecting the availability of imported rice.

4.3 Cereal marketing in the domestic market

Domestic marketing of imported rice functions well, from Dili to the sub-district level

Imported rice is being sold in rice-deficit districts, and also in surplus districts where local produce is uncompetitive as a result of low productivity and high unit costs (Map 1). Imported rice is landed in Dili, which is the largest market for imported rice because of its large urban population of 167 780 people in 2004. The other two major destinations for imported rice are Baucau in the east and Ermera in the west. Baucau is Timor-Leste’s second largest town, with 104 570 people in 2004, and is a three-hour drive from Dili along the very good coastal road via Manatuto. Ermera has the largest district population, of 103 170 people in 2004, and also the largest cereal deficit in the west.

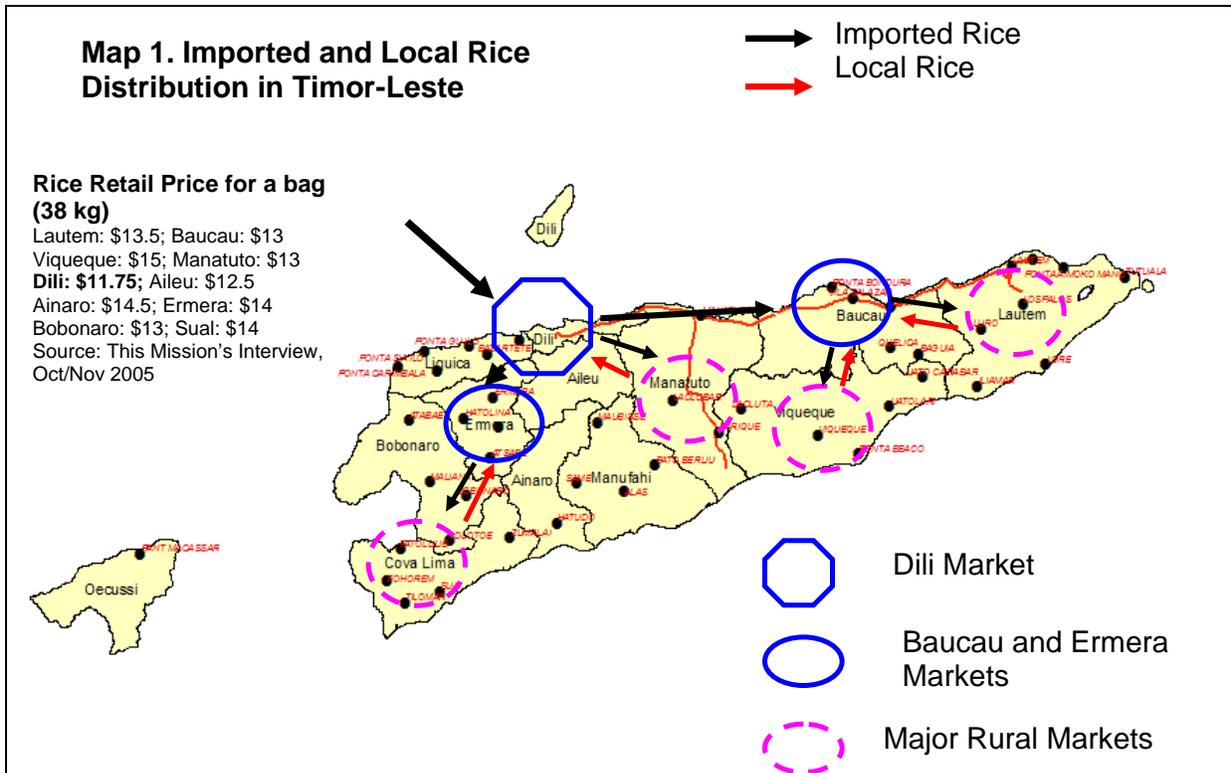
The marketing channels for imported rice can be categorized into two types:

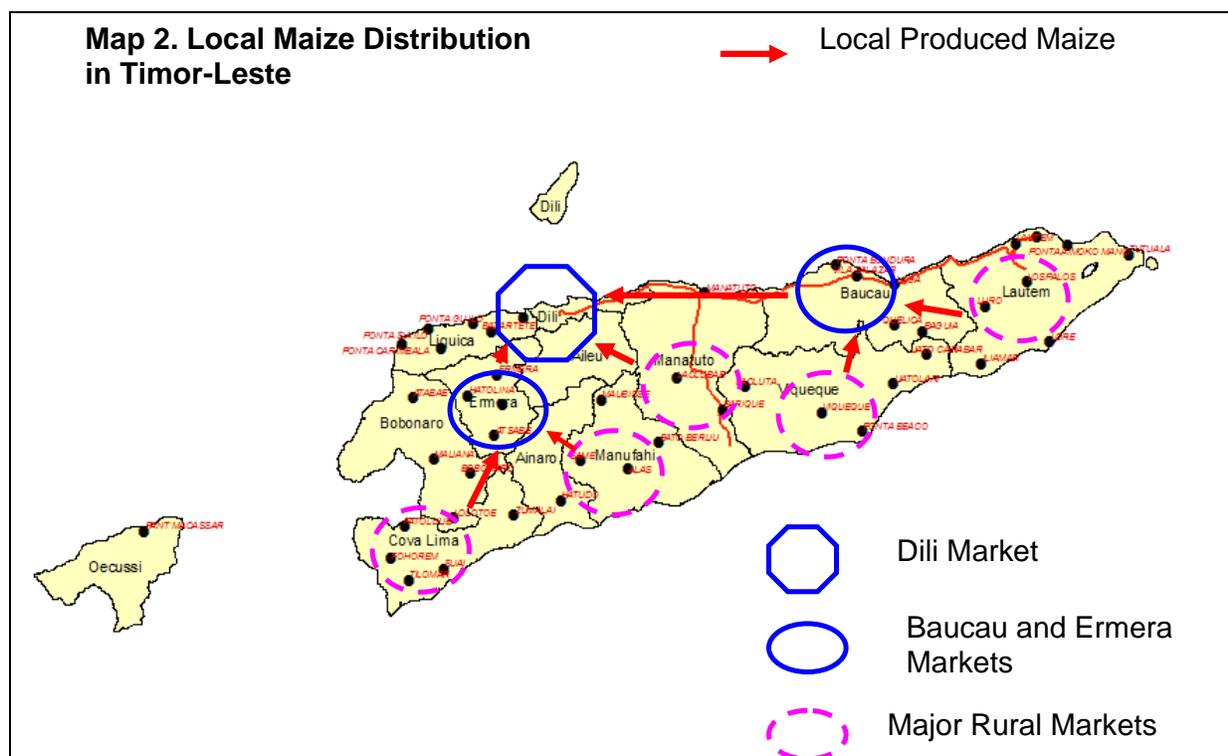
- 1) Importer in Dili => Retailers in Dili or small traders in district headquarters => Consumers;
- 2) Importer in Dili => Wholesalers in Dili => Retailers in Dili, small traders in district headquarters or bulk consumers in Dili => Small consumers.

Where there are no warehouses in the districts most importers in Dili sell directly to final retail traders, who come to Dili to purchase rice, bearing the transport costs and handling fees. Some traders provide credit to regular customers, allowing them to delay payment until two weeks after delivery of the rice.

At the sub-district level, imported rice is traded through small traders. Agriculture service centres (ASCs) market fertilizer and purchase food crops in some areas, but in limited quantities. The only other large trader, Centro Logistico Nazionale, is assisted by programmes and donors.

Rice prices in regional markets are determined by the price in Dili and transportation conditions. Rice was cheapest in Dili, at US\$11.75/bag. The price increases as the distance from Dili increases and road conditions worsen. Market development and competition are also important factors in determining the price. For example, although Ainaro is 2.5 driving hours closer to Dili than Suai is, its rice price was higher, reflecting weak local market development. It was reported that most consumer goods in Ainaro were sold via traders in Suai; rice and other goods were transported from Dili to Suai and then brought back to Ainaro market.





Prices vary according to the quantity purchased. Poor customers pay high prices, and depressed rice prices reduce subsistence farmers' access to food

Many customers in rural markets cannot afford a whole bag of rice, normally weighing 38 kg. Vendors of rice and maize bring their wares in sacks and sell them in small quantities, usually in heaps or by the tin or glass. Electronic scales are unfeasible at present. The mission bought imported rice in different sizes of tins and weighed it in Los Palos, Lautem district in November 2005. The prices were as follows:

US\$0.30/tin = 750 g or US\$0.40/kg, or US\$14.4/36 kg bag;
 US\$0.25/tin = 620 g or US\$0.403/kg, or US\$14.5/36 kg bag.

The price of a bag is US\$13.5 in Los Palos, implying that consumers pay about US\$1 more for a bag when they buy small amounts measured by the tin or glass. Interviews with both retailers and customers in rural markets show that workers, including social workers and government officers, usually buy rice by the bag, but subsistence farmers buy it in small amounts. Lack of market access/purchasing power means that subsistence producers cannot afford to buy an entire bag of rice at one time. Customers interviewed by the mission indicated that they usually barter some of their crop or livestock produce in exchange for a selection of household necessities, such as soap, salt, towels, sugar, matches, noodles and rice. They also need to save money for large household expenses, such as education and medical fees.

The low price of imported rice does not help the rural population, but instead reduces their market access by depressing the prices of local produce. According to FAO, the agricultural population accounts for about 81 percent of the population of Timor-Leste. In most rural districts and sub-districts, 95 percent of the population engage in agriculture as subsistence farmers. Many of these farmers need to sell rice or maize after harvest in order to generate cash income to buy family basic goods. With lowered cereal prices, they have to sell more to maintain the same spending for the family. When their rice/maize stock is exhausted, they buy very limited amounts of rice for consumption. Their access to food decreases as their household incomes are diminished.

Consumers in Timor-Leste prefer the taste of local rice, but are drawn to the larger volume of imported rice

The retail price of local rice in Timor-Leste is influenced by the price of imported rice. The retail prices of imported rice and local rice were exactly the same during the mission's visit. Most retailers and consumers indicated that Timorese prefer the taste of local rice, but buy more imported than local rice because it has a far higher volume after cooking than local rice has; family rice consumption – but not nutrition – requirements and costs are therefore lower for imported rice than local rice. With inadequate purchasing power, the switch to imported rice is a coping mechanism to reduce families' food budgets, despite the losses in calorie content.

There is no locally produced rice in Dili, and only very limited marketing from other districts, because all districts are deficit producers

There is no locally produced rice in Dili because: (1) Dili is the only port/gate for imported rice and has the lowest price for imported rice; (2) the price for imported rice is the same as that for local rice from rural district/sub-district markets and, with no premiums to offset transportation costs from these markets to Dili, local rice is uncompetitive in Dili markets; and (3) quality and marketing capacities are low.

Almost all districts are cereal-deficit, with predominantly subsistence farming. As discussed in section 4.2, a few eastern districts had small rice or maize surpluses in 2004. The situation worsened in 2005 as a result of drought, which affected nine districts out of 13.

In normal years, some local rice is reported to be traded among districts in the east – Lautem, Viqueque and Baucau – and the west: Emera, Bobonaro and Covalima (Map 1). Viqueque is a major rice surplus region in normal years, with 100 percent of the rice sold in the local market being locally produced, and additional sales to the Baucau area. In 2005, however, the mission found that almost all rice in Viqueque markets was imported – and some consumers in Viqueque had bought rice from Baucau – because severe drought had reduced local production.

Despite severe droughts and significantly reduced local production, cereal market prices were fairly stable, reflecting the availability of imported rice in all markets. The marketing channels for imported and local rice are distinct. Before independence, Government of Indonesia agencies guaranteed a floor price for paddy growers. Processing units were reportedly not created in East Timor, and surplus paddy from East Timor was taken to West Timor for milling and selling; some milled rice was transported back to East Timor. Since 1999, these channels have been disrupted. Local rice and maize sales in local markets are limited. The following channels have been observed:

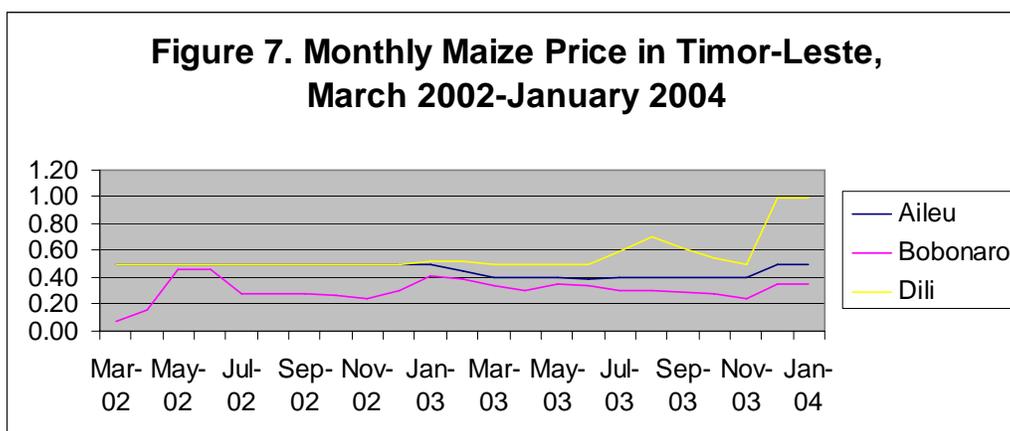
- 1) Rice/maize growers => Consumers;
- 2) Rice/maize growers => Retailers => Consumers;
- 3) Rice/maize growers => Wholesalers => Retailers => Consumers;
- 4) Rice/maize growers => Assembling wholesalers => Wholesalers in Dili => Retailers => Consumers.

The quantity traded in each channel varies from area to area. Market management and statistical data for trade and commerce are lacking in Timor-Leste, but the mission found that the first two channels dominate. Many small retailers in district and sub-district markets handle small amounts of rice and maize stock and sell local produce. Many rice and maize growers also sell their own products on market days. Only a small percentage of farmers go to wholesalers – channels 3 and 4 – because the margins are low. Competition is very high, and final consumer prices across a market

were found to be fairly uniform. Some direct farm gate transactions between final consumers and growers were observed. Retailers buy local rice and maize from the or from the market.

Unlike rice, the retail price for maize is highest in Dili

All farmers grow maize as a substitute for imported rice, so it should be monitored closely for crisis preparedness. Suai and Viqueque in the west used to be the major surplus areas. Maubisse, Ainaro and Maliana in the west reportedly buy maize from Suai, and Baucau and Manatuto buy from Viqueque. Map 2 shows local maize distribution in a good year. The maize price in Dili is much higher than that in production regions, such as Bobonaro and Aileu (Figure 7). This is because, contrary to the situation for rice, Dili is the final destination for local maize. Maize imports are very limited in Timor-Leste.



Source: Calculated from World Vision data.

Barter trade is popular in rural communities. The introduction of the US dollar resulted in increased prices and costs of living for subsistence farmers, unemployed people and unskilled workers. Barter trade is common in remote areas, especially the mountains, where local markets are absent or distant. The socio-cultural habit of helping each other as a coping mechanism for household food shortages is another stimulus for barter. Barter’s effectiveness as a coping mechanism is limited during regional food shortages such as drought, however, because all the people in the region will lack food at such times.

4.4 Marketing of cash crops

The major cash crop is coffee, which has been grown in Timor-Leste for almost 190 years. Currently, coffee production involves 40,000 families, almost 25 percent of the total, providing them with either major or minor annual incomes. As with rice and maize, coffee farming is low-input, low-cost and low-output; typical yields range from 150 to 200 kg/ha compared with average yields of 2,000 kg/ha in Papua New Guinea. Mainly owing to the variable climate, with El Nino weather patterns, coffee production in Timor-Leste varies from 4,000 to 12,000 mt. The country’s competitive edge lies in promoting its coffee in high-quality speciality organic and heritage markets, and 20 to 30 percent of production is sold at a price premium for high quality in the world market. Almost all coffee is sold in international markets, coffee exports accounting for more than 90 percent of non-oil export income. Coffee producers and exporters were reportedly suffering from falling prices in the global market, resulting from the international coffee crisis of recent years in which world coffee prices decreased by more than 50 percent. In 2005, coffee export earnings were reported to be US\$7.6 million, compared with US\$4.8 million in 2002, reflecting recovery in the world coffee price. The major importers of Timor-Leste coffee are the United States, the

Netherlands, Australia, France, Portugal and the United Kingdom. There are more than 40 registered coffee traders, constituting strong competition for Timorese traders in Dili.

Most coffee production is concentrated in Ermera, Liquica, Manufahi and Ainaro districts, where it contributes substantially to household economies. Based on the Timor-Leste Suco Survey (TLSS) of 2001, food insecurity is particularly high in coffee growing areas¹¹ and strongly linked to coffee income, because most households' available land is used to grow coffee, leaving little for other crops. Close monitoring of coffee growing conditions and world coffee prices is therefore highly recommended.

Timor Leste has a significant coconut resource, which was the basis of the Indonesian copra trade until the violence of 1999. This trade has resumed on a small scale, but Timor-Leste currently imports significant quantities of cooking oil, largely low-cost coconut and other oils from Indonesia. There are other cash crops in the country, but their market value and export are very limited.

Market activity in cash crops is increasing, as traders return to business and new investors emerge. Traders and international programmes have developed new markets: vanilla, cloves and other spices, mung beans and teak are being explored by the United States Agency for International Development (USAID)-funded National Cooperative Business Association (NCBA), palm oil by FAO and the World Bank, fisheries by various agencies, vanilla by NCBA, the World Bank and private traders, mushrooms by the World Bank, and coconut oil and other value-added coconut by GTZ and the Ministry of Agriculture. The agribusiness interests of several agencies are reported in Table 5.

Viqueque ASC is commercializing local products, starting with candle nut and coconut; it is not exporting cattle to West Timor.

Table 5: Agencies in agribusiness

Agency	Interest in agribusiness
Ministry of Agriculture	Development of market agencies, ASCs; activities undertaken by the forthcoming agribusiness unit, through Agriculture Rehabilitation Projects (ARP) II and III
World Bank	Market and agribusiness development activities through ARP II and III. Studies and promotion of promising niche agribusiness markets
USAID – NCBA	Coffee industry development through cooperative structure since 1994. Exploring and diversifying into new commodities for promotion – vanilla, livestock, teak
GTZ	Promoting trader activity through fund provision, market linkage assistance; funded feasibility study for coconut and candlenut oil production and other value-adding

Source: FAO Dili Office.

4.5 Marketing of livestock

Most livestock production is on a small scale and integrated into individual households' farming systems as a kitchen garden activity. Animals are generally raised through extensive feeding with little or no supplementation. Most households in Timor-Leste hold animals. Chickens, pigs and goats are widespread, and large animals such as cattle, buffaloes and horses can be found in many parts of the country. Chickens and pigs are the livestock most frequently found in markets.

¹¹ ETTA *et al.*, 2001: ETTA, ADB, World Bank and UNDP 2001, the 2001 Survey of Sucos, Initial Analysis and Implications for Poverty Reduction, Dili, Timor-Leste.

Historical data for the livestock sector are provided in Table 6. The sector was severely disrupted by the violence of 1999, with estimated reductions in numbers varying from 30 to 50 percent across the country. The 2004 figures show strong recovery and growth compared with the levels in 1995.

Table 6: Livestock numbers for Timor-Leste ('000 head)

	1990	1995	2004
Cattle	73	115	171
Buffalo	48	75	112
Pigs	287	343	380
Horses	25	31	47
Goats and sheep	136	204	153
Chickens			606

Source: Ministry of Agriculture.

The major livestock export is cattle, but only small numbers of live cattle have been exported in recent years. Most cattle are concentrated in Ambeno, Bobonaro, Covalima and Lautem districts. Cattle are sold in local markets and exported through Salele point to West Timor, Indonesia. Lautem in the east is Timor-Leste's second largest cattle producing district. Traders from Dili, Baucau and Manatuto buy cattle from farmers in Lautem. Domestic demand for beef is very low, with only an estimated 10 percent of the population eating meat because most households cannot afford it.

Buffalo are normally used as draught animals, particularly in rice fields. In 2004 there were an estimated 112,000 head of buffalo in the country.

Official statistics show that livestock prices have been stable since 2002. Cattle price in 2005 ranged from US\$100 to US\$200 per head, while beef and pork cost US\$2.3 to US\$3.0/kg. Prices for live chickens and ducks vary from US\$2.5 to US\$3.5 a head. The mission observed that prices of livestock products were lower during the period of food shortage, because rural subsistence farmers were forced to sell their livestock as a coping strategy.

4.6 Road and transport conditions

In a predominantly agricultural and rural economy with mountainous terrain, roads are the most important element of marketing infrastructure. In Timor-Leste, the road network consists of a northern coastal corridor, a southern coastal corridor and five penetration roads. The total length of roads is estimated to be 6,000 km. The current infrastructure network is largely the result of investment by previous administrations. During the mission, the northern coastal corridor was in good condition, but other roads had been destroyed and were in very poor condition. Investment to improve the road system was found everywhere by the mission.

Although district headquarters are reasonably well-connected to Dili, many villages lack road links. Trucks are major means of transportation for traders from Dili to main market places, especially for imported rice. Standard truck costs per trip and approximate travel hours from Dili to the districts are reported in Annex 2.

Public motor vehicles from the farm gate to market places are important to local produces who live along the few existing transport arteries; travel by foot or horse are the only options for those who do not. In remote areas, the average distance from villages to daily markets is more than 20 km. For these villagers, the trip to market may take several hours or an entire day. The market for agricultural produce is usually weekly. Some farmers reported going to market in turn with their relatives.

4.7 Threshing, milling and storage

Poor post-harvest practices are a key cause of poor rice quality and high losses for many stakeholders in Timor-Leste. Many threshing machines were destroyed or looted in 1999. Currently, an estimated 80 percent of threshing is done manually.¹² Owing to lack of labour and adequate threshing and drying facilities, some rice is reportedly left in fields for more than a month, resulting in deterioration, germination and insect attack. The miller visited by the mission demonstrated the high degree of breakage that occurs when poorly dried paddy is milled. Rice milling was relatively available during the visit. Each miller potentially has to mill 283 mt of rice.¹³ Rice milling is either paid for at US\$0.30 to US\$0.40 per 25 kg of paddy in cash or at 1 kg of milled rice in kind.

Before 1999, BULOG/DOLOG implemented buffer stocks and maintained a national cereal security stock. The warehousing capacity available in Timor-Leste is reported to be about 18,000 mt. At present, there are no government or public grain stocks. Local officers indicate that warehouses used by DOLOG in some districts are still existing, but are not yet in operation.

With support from ARP, the ASCs in Bobonaro, Viqueque and Aileu were expected to facilitate the marketing of agricultural inputs and products. The Trust Fund for East Timor (TFET) is meeting all project costs. The Ministry of Agriculture staff will play a counterpart role in supporting the programme's field activities. The ASCs were set up on a pilot basis: Bobonaro ASC became operational in 2001, and Viqueque and Aileu ASCs in 2002.¹⁴ Interviews during the mission's visit to Aileu ASC led to the conclusion that the ASC storage operation is not sustainable. This ASC purchases maize from farmers and would need 12 to 15 mt to be sustainable, but local supplies are insufficient, so purchases are made from Suai. During shortages, the ASC sells maize to households at the low price of US\$8 to US\$9/bag. Subsistence farmers still cannot afford to buy more than small quantities of maize for food and feed. The Aileu and Viqueque ASCs no longer operate for grain storage, as confirmed during the mission visit.

Rice is stored as paddy in farmers' houses in drums or traditional storage containers made from woven palm leaves; these may expose the rice to moisture and rodents. Buffer stocks supply household food and cash when needed. Maize is stored on thatched poles or trees and retrieved for threshing when needed.

4.8 Market information and services

Banking/credit

In early 2000, a Portuguese government-owned commercial bank, Babco Nacional Ultramarino (BNU), opened an office in Dili to provide foreign exchange, deposit, pension payment, payroll and disbursement services for Portuguese humanitarian aid interventions, and payments on behalf of the United Nations Transitional Administration for East Timor (UNTAET) outside Dili (World Bank).

Lack of access to credit and banking facilities is a key constraint for rice production and marketing. Informal credit systems operate, but have very high interest rates of up to 100 percent.¹⁵ Lack of access to credit also constrains market access for the most vulnerable households. Only 11 percent of households sampled in the household survey reported having access to some form of credit; only 8 percent indicated that they could purchase food on credit or borrow money to purchase food.¹⁶ The main sources of credit are reportedly friends, banks, charities or NGOs, local lenders and cooperatives.

¹² JICA, 2001, Study on Integrated Agricultural Development of East Timor, Sanyu Consultants Inc.

¹³ Dr K. Kemal-ur-Rahim, Ainaro Manatotu Community Activation Programme, Market Feasibility Study for AMCAP, UNOPS 2005.

¹⁴ Oxfam, 2004, Overview of the Rice Sector in Timor-Leste.

¹⁵ FAO/WFP CFSAM, 2003.

¹⁶ Timor-Leste Comprehensive Food Security and Vulnerability Analysis, February 2006.

Communications and the Internet

Postal, telephone and cell phone services are generally available.

Telecommunications infrastructure was severely damaged in 1999. The number of fixed telephone lines decreased from 12,000 to about 2,000 in 2000. The Australian telecom company Telstra began rebuilding telecom infrastructure in 1999 under a United Nations contract. Telstra has resurrected the fixed-line network and created a Global System for Mobile Communications (GSM)-based mobile phone network. In July 2002 a consortium led by Portugal Telecom was selected to run the nation's telecoms services as Timor Telecom. There are several Internet houses in Dili during our mission, but these charge very high prices of US\$5/hour, so usage is very limited. There is no internet access outside Dili. The electricity supply is also weak in rural areas.

Market regulations

No administrative mechanism is in place to run the market and there are no rules to govern it. No tax is collected from sales and no fees are collected to run and improve the market. Rural market days are usually social events in provincial towns.

5. MARKET INDICATORS AND INFORMATION SOURCES

5.1 Main food market indicators and information sources

Table 7 lists the main indicators that are worth monitoring and collecting data from to analyse the impact of a food emergency on Timor-Leste markets. The indicators are grouped into four categories: food availability and access; market functioning; macro-environment; and reaction mechanisms to food emergency. The form for presenting and the principal sources of information are provided for each indicator.

Table 7: Main food market indicators and information sources

Indicators	Method of presentation	Sources of information
Food availability		
Prospects for rice and maize in Timor-Leste	Comparison of current production estimates with production in previous year and 5-year average	GIEWS/FAO; FAOSTAT/FAO; ad hoc surveys and interviews
Changes in domestic rice and maize stocks	Comparison of current food stocks with those of previous year and 5-year average; estimate of stocks destroyed	Ministry of Agriculture; GIEWS/FAO; ad hoc surveys and interviews
Prospects for cereal production in major exporting countries	Analysis of food surpluses or shortages in neighbouring countries	GIEWS/FAO; ERS/USDA; governments in neighbouring countries;
Cereal – rice, maize, wheat – international trade flows	Estimates of imported and exported quantities of main food commodities specifying the origin or destination	Customs; national statistics; traders/agrofood industry
Unregistered cross-border trade	Estimates of amount and direction of border trade with Indonesia	Visit to border checkpoints and customs
Market information and access		
International rice prices – Viet Nam and Thailand	Analysis of seasonal trend from weekly or monthly prices	GIEWS/FAO
Wholesale and retail food prices in Dili and district markets	Weekly prices for main food items – rice, maize, beef, chicken	CPI/national statistics; World Vision; traders in Dili
International coffee supply and prices	Production estimates for major export countries, and world price	GIEWS/FAO
Domestic production prospects for coffee	Monitoring of weather situation and impact on coffee production in major districts	MAFF; Cooperative Café Timor; traders
Changes in other main sources of income	Analysis of changes in employment opportunities, migration flows by district	Government; household surveys; NGOs
Trade flows among surplus and deficit areas	Estimate of flows of main food items moving out of/into the area in crisis and the country; comparison with normal flows	Customs; national statistics; traders
Road and transport systems	Changes in conditions of main roads and bridges; identification of isolated markets in rainy seasons; changes in transport costs	FAO office in Dili; Ministry of Agriculture
Macro-environment		
Trade regulations	Analysis of main trade policies and their likely effects on domestic food markets	Customs; Ministry of Agriculture; traders
Foreign exchange reserves	Analysis of monthly data; comparison with latest 3-year trend	National statistics; World Bank; IMF
Inflation	Analysis of monthly data; comparison with latest 3-year trend	National statistics; World Bank; IMF
Reaction mechanisms to food emergencies		
Government strategies	Analysis of how main stakeholders plan to react to the food emergency	Interviews with FAO office in Dili; Ministry of Agriculture
International agencies' strategies		Interviews with main international agencies and NGOs
Traders' strategies		Interviews with traders in main food markets

5.2 Major institutions for information

Directorate of National Statistics

Timor-Leste's National Statistics Office (NSO) came into being on 30 June 2000 under the first UNTAET. Funding was provided through UNDP and the main programme at the time was the Consumer Price Index (CPI) project. The office was located in the GPA Building with 16 national and international staff members. In 2001, staff numbers were reduced to eight and the office moved to the Prime Minister's Office but was administered through the Ministry of Economic Affairs. On 20 May 2002, Independence Day, NSO became the National Statistics Directorate (NSD) within the Ministry of Planning and Finance, and was moved to the nearby Kobe Building. It relocated to its current location on 5 September 2003 in the two-storey former Statistics Office of the Indonesian administration, which was refurbished with funds from the United Nations Population Fund (UNFPA).

The most useful food security data that NSD publishes are weekly food prices in main domestic markets, monthly rice and coffee trade data regarding quantities and values by country of origin, and macroeconomic variables. Summary data are posted on the Web and detailed data are available on request free of charge.

Customs

The Customs Service is one of the largest revenue-generating units among Timor-Leste's established government institutions, accounting for almost 60 percent of domestic revenues. With funding from UNDP, the Customs Service installed the international-standard Automated System Customs Data Administration (ASYCUDA), which improves the management of the Customs Service through standardizing and automating customs processes, improving the collection of import revenue and minimizing fraud and leakage. ASYCUDA began effective operation in October 2003. By a year later, the Customs Service had increased its collection of import duties by 50 percent compared with the same period of the previous year, despite a 30 percent reduction in trade volume caused by the reduced international presence in Timor-Leste.

The project completed phase 1 in April 2005. The Government of Timor-Leste, recognizing the importance of such a system, has requested a follow-up phase to broaden the system's use in other major customs offices, such as border stations, and to maximize the use of ASYCUDA functions – the automated cargo manifest module, risk management and valuation control and the remote lodgement of information. The second phase will consolidate the training of customs staff and strengthen the institutional capacity of customs.

Table 8 gives contact information for NSD, the Customs Service and other institutions.

Table 8: Institutional contact information

Institutions	Contact and Web page
Ministry of Agriculture	www.timor-leste.gov.tl/MAFF/index.htm
NSD	Mail address: Direcção Nacional de Estatística, Rua de Caicoli, PO Box 10, Dili, Timor-Leste; E-mail address: info@dne.mopf.gov.tp
World Bank	Avenida dos Direitos Humanos, Dili; www.worldbank.org
UNDP	United Nations House, Caicoli Street, Dili-Timor-Leste; www.undp.east-timor.org
Customs Service/Ministry of Planning and Finance	www.mopf.gov.tl/customs.htm
UNOPS	www.unops.org.my
GIEWS/FAO	www.fao.org/giews/english/index.htm
FAOSTAT/FAO	faostat.fao.org/faostat/default.jsp?version=int&hasbulk=1
IMF	www.imf.org/

Annex 1

SELECTED PEOPLE MET

Government Officers

Ministry of Agriculture

Mr Estinslau Aleixo da Silva, Minister
Director, Agriculture and Livestock

Mr Joao Rodrigues, District Director, Aileu

Mr Eonardo da Costa, District Director, Farmers' Association, Viqueque District

Mr Agostinro Gusamao, Head, Official and Social Economics, Covalima District
District Director, Manatuto District

NSD

Mr Mamel Mendonco, Director

Mr Loutenco Caorer, Chief, Consumer Price Index

Mr Silvino Lopes, Chief, Trade

Customs Service

Mr Joao De Oliveira Rodrigues, Customs Officer in Dili

Mr Valente De Araliju, Customs Officer in Dili

Mr Luis Almeida, Customs Officer in Dili

United Nations and NGOs

World Food Programme

Mr Tarek El Guindi, Country Director

Mr Rouchcly Saleh, WFP Programme and Education Adviser

FAO Office in Dili

Mr Chana Opaskornkul, Office in Charge

World Bank

Mr Joao J.A. Gomes, Operations Officer

World Vision

Mr Venancio Xamiuames

CARE International in Timor-Leste

Ms Catherine M. Salem, Assistant Country Director-Finance and Administration

UNDP

Mr Rui Gomes, Head of Poverty Reduction Unit

Ms Alessandra Casazza, Deputy Chief/Senior Programme Officer, Poverty Reduction and Community Development

Japanese International Cooperation Agency (JICA)

Mr Jakeshi Nabeta, Project Coordinator/Farmers' Organization (Irrigation and Rice Cultivation Project in Manatuto)

UNOPS

Dr Kazim Kemal-ur-Rahim, Marketing and Agribusiness Consultant

Oxfam (Hong Kong)

Mr Frank Elvey, Programme Manager for Timor-Leste

Oxfam (Australia)

Ms Keryn Clark, Country Programme Manager of Timor-Leste Program

Private Traders and Others

Mr Jong Fu Kong (James), Director, Timofood (Globus rice trader)

Mr Lai Kang, Director, U.N. Capital SDN. BHD (agricultural inputs trade company)

Mr Americo Braga. F. Ly (Hau Seng) (meat trader in Lospalos)

Annex 2

Driving hours and standard truck costs per trip from Dili to the districts

District	Sub-district	US\$ ¹	Hours to Dili ²
Covalima	Tilomar	160	
	Suai	160	7
	Fatolulic	170	
	Fohorem	170	
	Fatumean	170	
	Mape	150	
Ainaro	Hatoudo	130	
	Ainaro	110	4.5
	Hatobuilico	120	
	Maubisse	90	
Manatuto	Barique	150	
	Soibada	120	
	Laclubar	100	
	Laclo	80	
	Manatuto	70	1.5
	Laleia	80	
Manufahi	Same	110	4.5
	Alas	120	
	Fatuberliu	130	
	Turiscaí	120	
Viqueque	Lacluta	150	
	Viqueque	140	5
	Ossu	130	
	Uatolari	150	
	Uatocarabau	170	
Aileu	Aileu	70	1.5
	Liquedoe	80	
	Remexio	60	
	Laulara	50	
Lautem	Iliomar	140	
	Lospalos	120	5
	Luro	110	
	Lautem	120	
	Tutuala	140	
Baucau	Vemasse	90	
	Venilale	110	
	Quilicai	140	
	Baguia	140	
	Laga	110	
	Baucau	100	3
Liquica	Maubara	70	
	Liquica	50	2
	Bazartete	60	
Ermera	Atsabe subdistrict	110	
	Letefoho	100	
	Hatolia	80	
	Ermera	70	
	Railaco	60	
Bobonaro	Lolotoe	150	
	Bobonaro	140	
	Maliana	120	3
	Balibo	100	
	Atabae	80	
	Cailaco	130	
Dili	1 day rental	50	
	1 trip	25	

¹ Data provided by FAO 2005, used in Dr K. Kemal-ur-Rahim's paper.

² Estimated by the mission. Additional cost of labour = US\$10 per truck up to US\$120, then US\$15.

Annex 3

Map of Timor-Leste



List of Acronyms

ARP	Agriculture Rehabilitation Project
ASC	agriculture service centre
ASYCUDA	Automated System Customs Data Administration
BNU	Banco Nacional Ultramarino (Portugal)
BPU	border patrol unit
BULOG	Badan Urusan Logistik (Indonesian national logistics agency)
CARE	Cooperative for Assistance and Relief Everywhere
c.i.f.	cost, insurance and freight (price)
CPI	consumer price index (project)
DOLOG	Depot Logistik (Indonesian provincial logistics agency)
FAO	Food and Agriculture Organization of the United Nations
f.o.b.	free on board
GDP	gross domestic product
GIEWS	Global Information and Early-Warning System
GSM	Global System for Mobile Communications
GTZ	German Agency for Technical Cooperation
IMF	International Monetary Fund
JICA	Japanese International Cooperation Agency
NCBA	National Cooperative Business Association
NGO	non-governmental organization
NSD	National Statistics Directorate
NSO	National Statistics Office
SENAC	Strengthening Emergency Needs Assessment Capacity (project)
TFET	Trust Fund for East Timor
TLSS	Timor-Leste Suco Survey
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNOPS	United Nations Office for Project Services
UNTAET	United Nations Transitional Administration for East Timor
USAID	United States Agency for International Development
USDA	United States Development Agency