

Expanding Timor-Leste's Near-Term Non-Oil Exports

Diagnostic Trade Integration Study (DTIS)

prepared for the Integrated Framework

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WEIGHTS AND MEASURES
Metric System

ABBREVIATIONS AND ACRONYMS

ACIA	ASEAN Comprehensive Investment Agreement	CCT	Cooperativa Café Timor
ACP	African, Caribbean and Pacific Group of States	CEM	Macau Electricity Cooperation
adat	Traditional justice system	CEPT	Common Effective Preferential Tariff
ADB	Asian Development Bank	DF	Donor Facilitator
ADT	Average Daily Traffic	DNFP	National Division of Vocational Training
AEC	ASEAN Economic Community	DRBFC	Directorate of Roads, Bridges, and Flood Control
AEO	Authorized Economic Operator	DSP	Dezenvolve Setor Privadu
AFAS	ASEAN Framework Agreement on Services	DTIS	Diagnostic Trade Integration Study
AFTA	ASEAN Free Trade Area	EBA	Everything-But-Arms
AFTATS	ASEAN Framework Agreement on Trade in Services	EC	European Community
AIA	ASEAN Investment Area	EDF	European Development Fund
AMC	ASEAN Member Countries	EDTL	Electricidade de Timor-Leste
APBSD	ASEAN Policy Blueprint for SME Development	EEZ	Exclusive economic zone
APG	ASEAN Power Grid	EIB	European Investment Bank
APIP	Agricultural Productivity Improvement Program	EPAs	Economic Partnership Agreements
APORTIL	Administração dos Portos de Timor-Leste	ESI	Estimated Sustainable Income
APSC	ASEAN Political-Security Community	EU	European Union
AQIS	Australian Quarantine Inspection Service	FDI	Foreign direct investment
ARPs	Agricultural Rehabilitation Projects	FFA	Forum Fisheries Agency
ASCC	ASEAN Social-Cultural Community	FIAS	Foreign Investment Advisory Service
ASEAN	Association of Southeast Asian Nations	FOB	Free on board
ASYCUDA	Automated System for Customs Data	FP	Focal Point
BA	Biosecurity Australia	FTA	Free trade agreements
BARDEP	Bobonaro Agricultural Development Project	GATS	General Agreement on Trade in Services
BOP	Balance of payments	GDP	Gross domestic product
BPA	Banking and Payments Authority	GOTL	Government of Timor-Leste
CCGT	Combined cycle gas turbine	GSPs	Generalized system of preferences
		GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
		HAPUA	Heads of ASEAN Power Utilities/Authorities
		HFO	Heavy fuel oil
		HS	Harmonized System
		IADE	Instituto Apoio ao Desenvolvimento Empresarial

IAS	International Accounting Standards	PICTA	Pacific Island Countries Trade Agreement
IF	Integrated Framework	PIF	Pacific Island Forum
IFC	International Finance Corporation	PPD	Public Private Dialogue
IFRS	International Financial Reporting Standards	PTA	Preferential trading arrangement
IGA	ASEAN Investment Guarantee Agreement	RDP II	Second Rural Development Programme
ILO	International Labor Organization	RDP IV	Rural Development Project Phase IV
IMF	International Monetary Fund	REER	Real effective exchange rate
IMfTL	Instituicao de Microfinancas de Timor-Leste	ROO	Rules of origin
IMO	Maritime Organization	SAPT	Sociedade Agrícola Pátria e Trabalho
INDMO	National Labor Force Development Institute	SEFOPE	Secretariat of State for the Vocational Training and Employment
IP	Intellectual property	SEOs	Suco Extension Officers
IPM	Integrated Pest Management	SEZ	Special economic zone
IPR	Intellectual Property Rights	SPS	Sanitary and phytosanitary
ISPM	International Standard Phytosanitary Measures	suco	Clan and Timor-Leste administrative unit
LDC	Least developed country	SWOT	Strengths, Weaknesses, Opportunities, and Threats
MAFF	Ministry of Agriculture, Forestry, and Fisheries	TA	Technical assistance
MED	Ministry of Economy and Development	TIN	Tax identification number
MFAC	Ministry of Foreign Affairs and Cooperation	TITL	TradeInvest Timor-Leste
MFN	Most-Favored-Nation	TLSLS	Timor-Leste Survey of Living Standards
MHI	Manitoba Hydro	TRGP	Trans-ASEAN Gas Pipeline Projects
MoF	Ministry of Finance	TRIMS	Trade-related investment measures
MoI	Ministry of Infrastructure	TRM	Tuba Rai Metin
MoJ	Ministry of Justice	UNCDF	United Nations Capital Development Fund
Mt	Metric tonnes	UNDP	United Nations Development Programme
MTCI	Ministry of Tourism, Commerce, and Industry	UNTAET	United Nations Transitional Authority for East Timor
MU	Ministerial Understanding	USAID	United States Agency for International Development
NCBA	National Cooperative Business Association	VAT	Value-added tax
NDQB	National Directorate of Quarantine and Biosecurity	VCA	Value chain analysis
NGO	Non-Governmental Organization	VET	Vocational Education and Training
NII	National information infrastructures	vpd	Vehicle-per-day
NITL	National Insurance Timor-Leste	WFP	World Food Program
NIU	National Implementation Unit	WIPO	World Intellectual Property Organization
NP	National Priorities	WTO	World Trade Organization
NSC	National Steering Committee		
NTB	Non-tariff barriers		
O&M	Operations & Maintenance		
O-D	Origin and Destination		
PACER	Pacific Agreement on Closer Economic Relations		
PF	Petroleum Fund		

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EXECUTIVE SUMMARY

REMOVING CONSTRAINTS TO EXPANDING EXPORTS IN THE NEAR-TERM AND PROVIDING THE FIRST STEP FOR A LONGER-TERM EXPORT STRATEGY

1. The Government of Timor-Leste (GOTL) is committed to the development of the non-oil economy by enabling the diversification of domestic production and trade integration. The objective of the Timor-Leste Diagnostic Trade Integration Study (DTIS) is to agree on priority actions to help overcome constraints to expanding agricultural exports in the near-term. It supports the government's efforts to develop a broader international trade strategy, which may include strategic sectors such as tourism and fisheries. The focus of the DTIS is on short-term results in areas with immediate export potential. It therefore looks only at the agriculture sector.
2. Achieving export growth and diversification are essential for supporting overall economic growth and employment generation. Non-oil export growth is critical in light of the external sustainability risks of depending on exhaustible petroleum exports. Expanding output for domestic consumption is also a priority and may help reduce dependence on imports. Policy actions to expand exports will impact positively on domestic trade as well. Timor-Leste faces the challenge of having to mostly create a non-oil export sector, rather than reviving one that is stagnant or destroyed because of conflict. This context is quite unique even when compared to similar small-island or post-conflict countries.
3. The DTIS covers five main areas. Section I looks at macro and trade policies as they relate to external competitiveness and market access. Section II analyzes the export potential in the agriculture sector. Section III looks at structural constraints to trade and recommends possible measures to help improve productivity and reduce costs. Section IV examines the critical infrastructure needs to facilitate trade. Section V looks at implementation arrangements and next steps.

MACROECONOMIC AND TRADE POLICIES HAVE BEEN CONSISTENT WITH PROMOTING EXPORT COMPETITIVENESS

4. Timor-Leste is a small economy, where the macroeconomic environment has been bolstered by rapidly rising petroleum revenue since 2004. A stable macroeconomic environment is critical for export competitiveness, including stable inflation and a competitive real effective exchange rate. The government to date has implemented sound policies, which have helped to maintain macro stability and are consistent with objectives of promoting export competitiveness. A cornerstone of the government's macro framework is Timor-Leste's Petroleum Fund (PF). Fiscal expenditures have expanded rapidly to meet pressing needs. But the PF has provided a robust instrument to promote discipline and transparency in the use of natural resources. The main challenge going forward is using fiscal policy to promote productivity, competitiveness, and diversification in the non-oil economy.
5. Trade policies in Timor-Leste are not a constraint to promoting export growth and diversification. Protectionist policies (e.g. high tariffs and non-tariff barriers) or other distortionary measures (e.g. export subsidies or taxes, import subsidies) can restrict market access and/or hamper the growth of export industries. But Timor-Leste has one of the most liberal trade policy regimes in the world. This will continue to support the country's economic development needs by maintaining low import prices, encouraging technology transfers, minimizing anti-export bias, and reducing incentives for illicit flows across borders.

6. Market access has not been a major issue for Timor-Leste's exports to date even though the country is not a member of any multilateral or regional trading arrangement. As a Least Developed Country (LDC), Timor-Leste will continue to receive preferential tariff treatment from major markets. The GOTL has prioritized membership of the Association of Southeast Asian Nations (ASEAN). More than 70 percent of Timor-Leste's imports come from ASEAN countries, which provide markets for more than a quarter of Timor-Leste's exports. ASEAN membership seems a logical next step towards greater international economic integration. It can also provide a stepping stone towards WTO membership. The DTIS recommends to conduct an assessment of steps required to fulfill the ASEAN Economic Community Blueprint and a study on WTO accession.

7. The institutional structure for developing and coordinating trade policy in Timor-Leste is still at a nascent stage given capacity constraints and other more immediate priorities. Addressing trade-related issues and developing an international trade strategy will require solid institutional foundations. The responsibility for policies that impact on exports spans across the government. As in other countries, agencies that are nominally responsible for international trade policy may have little authority over the policies that are most important to trade. The DTIS recommends using the Integrated Framework National Steering Committee as a forum for strengthening coordination around trade policy; training selected civil servants across government on specialized trade-related topics (trade policy analysis and negotiations); enacting the new Investment Law and related Decree Laws; and strengthening the capacity and institutional status of the newly established Investe Timor-Leste.

DELIVERING ON THE POTENTIAL FOR AGRICULTURE EXPORTS IN THE NEAR-TERM

Subsectors with immediate export potential

8. The agriculture sector in Timor-Leste, which employs 80 percent of the active population, has potential to both expand exports in the near-term and have a positive impact on poverty. Timor-Leste has a wide range of improved crop and livestock production packages which are ready for nationwide adoption, provided the technologies can be extended to farmers and markets developed. The DTIS looked at three subsectors with potential for both substitution of existing imports and expansion of exports:

9. Coffee has the greatest potential for both increasing export earnings and reducing poverty. In 2009, about 67,000 households grew coffee in Timor-Leste, with a large proportion being poor. With improved technology for coffee farmers, gross margins could increase by an average of about \$500 per hectare (ha) from only \$120/ha. Returns per labor-day would increase from about \$3.70 to \$5.90. Increasing production by four times from around 52,000 ha of coffee plantations could increase export earnings by about \$45 million per year. Aside from promoting improved technology, the DTIS also recommends to further support the rehabilitation of coffee plantations and to start Integrated Pest Management.

10. Grains and pulses (in particular mungbean) have export potential even though the impact on poverty may be more limited than coffee. Pre-Independence production of mungbeans collapsed after the departure of Indonesian traders. The 11,000 households growing mungbeans now are mostly subsistence farmers. But there is commercial demand including for exports. Going from 0.25 ha of crop per household to 0.50 ha could result in an incremental household gross margin of \$340 per year and returns per labor day of \$5.90. Producing 4,000 Mt per annum valued at \$700/Mt could generate \$2.8 million in exports. The DTIS recommends to expand donor programs and extension services to mungbean farmers particularly along the south coast and to establish links with buyers in Indonesia.

11. Livestock (in particular cattle) has potential for increased exports to Indonesia where the demand for beef is estimated to be growing at 6 – 8 percent per year, and imports are likely to supply 38 percent of their demand by 2010. Around 44,000 households are engaged in rearing cattle/buffalo. If a family fattened 2 heads of cattle per year, their net farm income would increase by \$280 per year. Export earnings could be around \$4.5 million. The DTIS recommends to update the livestock census to get a better idea of cattle populations and to evaluate options for a new public or private abattoir near Dili.

Looking at medium-term possibilities for horticulture exports

12. Timor-Leste has recently seen a growth in the production and marketing of vegetables and fruits for domestic markets. Expanding this for exports presents major challenges given the perishable nature of the products, difficult transport linkages, and the distance from markets. The DTIS looks at earlier feasibility studies and experimental trials to supply fresh fruit and vegetables to markets in Australia. Horticulture is not recommended as a short-term priority for exports. But given that these crops are labor intensive and can contribute to employment and income generation, the DTIS highlights the possibility of conducting courses on safe pesticide use, establishing regulations for pesticide safety, and exploring investment in small scale cold chain equipment.

Sanitary and Phytosanitary (SPS) Certification capacity: an immediate priority

13. Timor-Leste currently has very limited SPS certification capacity. Though SPS has not restricted exports to date, this has become an urgent issue. The Government of Indonesia has indicated that imports from Timor-Leste will be banned from the end of 2010 without the necessary SPS certification. There are a number of challenges to developing and implementing an SPS system including the technical and financial resourcing of the National Directorate of Quarantine and Biosecurity. Investments will need to be commensurate with the volume of exports. The quarantine services in other countries provide services for large volumes and year-round exports of a variety of commodities. The DTIS recommends to formulate a strategy for SPS and to organize stakeholders not only to maintain existing exports but also to expand exports.

ADDRESSING THE STRUCTURAL CONSTRAINTS TO EXPANDING EXPORTS

14. The analysis of the different agricultural subsectors highlights several structural factors that constrain exports. This analysis supplemented by discussions with the private sector highlighted three major issues constraining export competitiveness and growth: the skills deficit; access to land; and the business environment.

Addressing the skills deficit

15. Developing agricultural subsectors into profitable export and import replacement businesses will require strengthened skills and experience of farmers and extension workers. Both pre- and post-harvest crop losses are high, with farmers losing up to 33 percent of their crop. In addition, agro-processing technologies are typically outdated and inefficient, preventing more commercial production. There are existing technologies and approaches assisting both farmers and Suco Extension Officers, which can potentially be replicated nationwide for coffee, horticulture, other crops, and livestock. The DTIS recommends to build on these to strengthen the newly created agricultural extension services and increase budget resources to agricultural research and extension.

16. Skills gaps at the level of the farmer and agro-processor are a binding constraint for short-term productivity and growth. As these are addressed, there will be added pressure for skills along the value chain. However, gaps penetrate the full extent of the skills spectrum. This is evident in the large number of foreign workers in most sectors of the economy, who are currently providing a

critical input. Building domestic capacities and encouraging skills transfer to substitute imported labor in the long-run is a high priority. In addition to foreign labor, Vocational Education and Training (VET) and on-the-job training are helping to address the skills gap. The DTIS highlights a number of issues to strengthen VET and on-the-job training, including linkages between training institutions and labor market demands; quality assurance, accreditation, and certifications; and training of trainers.

Improving access to land

17. The lack of formal property rights and the limited access to land are important constraints to investment and export growth. Around 97 percent of rural landholdings remain under customary tenure, which is land that has (usually) never been titled. Ownership and user rights are typically regulated by customary (or traditional) authority structures. As a result, private sector investment in agriculture is low. Notwithstanding the production of coffee and, on a more limited scale, the production of other cash crops including candlenut, peanuts, maize, mungbean, and copra, the majority of rural farmers in Timor-Leste rely mainly on subsistence crops for their livelihoods. Although there has been some work on property rights, particularly in urban and peri-urban areas, there has been little focus on expanding land registration in rural areas. The DTIS recommends to evaluate the potential for expanding the *Ita Nia Rai* land registration program over critical areas of primary industry land, including some areas of coffee plantation.

Strengthening the business environment

18. In addition to the skills gap and the lack of access to land, Timor-Leste has a very challenging business environment, which can be a disincentive for investment and an impediment to generating scale. Three issues in particular are highlighted:

19. Business start-up in Timor-Leste is a complex and time consuming process. Private businesses end up operating informally or paying illegal fees to speed up the process. It also ends up driving away potential investors. The DTIS recommends to build capacity for Ministry of Justice and Ministry of Tourism, Commerce, and Industry staff involved in registration and licensing and create a one-stop shop for business start-up with a quick incorporation and registration procedure and electronic sharing of information across ministries.

20. Contract enforcement capacity in the government is low, and there is limited use of contracts in the first place. The general lack of alternative methods of dispute resolution also inhibits investments. The DTIS recommends to develop a commercial arbitration or mediation facility, deliver training programs on commercial disputes for mediators and arbitrators, and build capacity of Timorese businesses to use contracts.

21. Access to finance is limited partly due to the lack of information on borrowers and the weaknesses in the legal structure to protect borrowers and lenders. This has constrained the growth of credit markets. The size and reach of financial markets is small, inhibiting business growth including in the export sector. There are efforts under way to try and address some of these challenges, including institutional strengthening (e.g. risk management, credit information reporting system) and the expansion of microfinance. The DTIS recommends to provide support to evolving the credit information reporting system into a full-fledged credit bureau and enable the provision of credit on the basis of contracts with reputable private sector companies.

22. These three issues along with challenges associated with access to land are clearly interrelated. For example, the lack of clear land titles inhibits access to finance because land cannot be used as collateral for loans. Companies, foreign or domestic, cannot set up their businesses or

obtain capital if they cannot register. Export contracts will not have credibility if disputes cannot be resolved.

INVESTING IN CRITICAL INFRASTRUCTURE TO FACILITATE INTERNATIONAL TRADE

23. In addition to the above structural issues, the DTIS looks at critical infrastructure and associated services that are needed to facilitate international trade, in particular the road transportation network, the port of Dili, and the customs services. These areas are important for ensuring that goods can move efficiently across borders from their source.

24. The road transport system in Timor-Leste is somewhat unusual in that the distances traveled are short and the loads are small, but travel times are relatively long and costs are high, due primarily to the terrain. Road links with potential to grow into a *trade corridor* should receive priority funding. The DTIS looks at two corridors in particular. The first is the coffee corridor, which connects the country's main coffee growing areas in Ermera district to the capital, where the commercial airport and seaport are located. The second is the cross-border corridor, which connects Dili with the Mota Ain border to Indonesia. The current traffic volume on the cross-border corridor is among the highest in the country, but it is still fairly light in terms of traffic capacity.

25. The Port of Dili is used to handle both container and breakbulk cargo. It is a small facility originally designed for breakbulk operations. Port capacity is limited not on the waterside but on the landside. If the volumes continue to increase, congestion will become a severe problem. In order to address this, it will be necessary to convert the port to a modern configuration. This would involve block stacking of containers in designated slots to a maximum height of 4 boxes with rows 5 wide. Such changes will allow the port to double its current capacity and continue operating without congestion for another 6-8 years.

26. Customs in Timor-Leste is confronted with similar problems as other customs departments attempting to modernize their procedures. There are some unique features in Timor-Leste: small portion of total government revenues; relatively new cadre of customs staff; lack of reliable communications limiting the effectiveness of ASYCUDA; use of scanners in the airport and seaport still not clarified; and limited customs presence in the airport and land border crossings. Customs is able to clear goods within 2-3 days. This would place it well ahead of most developing countries, except that it has been accomplished because certain procedures have not yet been introduced. The biggest challenge is to introduce a more rigorous system while maintaining the short clearance times that currently allow Dili port to continue functioning. The government is already making efforts in this area.

27. The recommendations set out in the study are preliminary. Furthermore, as per the DTIS format, the analysis covers a broad set of issues, resulting in a large number of recommendations. Clearly, there is a need to prioritize areas for action, taking into consideration Timor-Leste's priorities and capacity. The recommendations will be assessed and reviewed by a broad range of stakeholders in the National Validation Process. This process will include a series of thematic roundtables, leading up to the final National Validation Workshop (NVW). The roundtables will be used to communicate and disseminate the study findings and recommendations and to elicit feedback. The recommendations along with the priority actions will then be finalized through the NVW.

SUGGESTED DTIS ACTION MATRIX (TO BE DISCUSSED AND FINALIZED)¹

Issue	Recommended Action	Responsible Agent	Time-frame ²
DEVELOPING A LONGER-TERM INTERNATIONAL STRATEGY			
Coordination and capacity on international trade policy issues.	<ul style="list-style-type: none"> Establish the Integrated Framework National Steering Committee as a Ministerial forum for strengthening coordination around trade policy. 		ST
	<ul style="list-style-type: none"> Train selected civil servants across government on specialized trade related topics (trade policy analysis and negotiations). 		MT
Accession requirements for multilateral and regional integration arrangements.	<ul style="list-style-type: none"> Undertake an assessment of the timeframe, resources, and actions required to meet the needs under each section of the ASEAN Economic Community Blueprint. 		ST
	<ul style="list-style-type: none"> Conduct a study to assess WTO accession for Timor-Leste. 		LT
Investment promotion for international trade.	<ul style="list-style-type: none"> Enact the new <i>Investment Law</i> and related Decree Laws. Strengthen the capacity and institutional status of the newly established Investe Timor-Leste including by developing an investment promotion strategy, business plan, vision, and performance targets. 		ST
	<ul style="list-style-type: none"> Conduct a tourism study to analyze the country's prospects for developing a viable tourism sector. 		MT
DELIVERING ON THE POTENTIAL FOR AGRICULTURE EXPORTS IN THE NEAR-TERM			
Exports of coffee.	<ul style="list-style-type: none"> Plan, prepare, and implement the initial rehabilitation of coffee plantations. 		MT
	<ul style="list-style-type: none"> Strengthen donor coordination for support to coffee, and promote transfer of improved technology and Integrated Pest Management. 		ST
Domestic and international trade of grains and pulses (mungbeans).	<ul style="list-style-type: none"> Expand existing donor programs and extension services to mungbean farmers, particularly along the south coast. 		MT
Domestic and international trade of livestock (cattle).	<ul style="list-style-type: none"> Update the livestock census to get a better idea of cattle populations, and evaluate options for a new public or private abattoir near Dili. 		MT
Sanitary and Phytosanitary (SPS) Certification capacity.	<ul style="list-style-type: none"> Form a SPS Consultative Group including relevant stakeholders in the government and the international community to develop and implement a strategy for the establishment of SPS capacity. 		ST
ADDRESSING THE STRUCTURAL CONSTRAINTS TO EXPANDING EXPORTS			
Addressing the skills deficit.	<ul style="list-style-type: none"> Build on support to be provided under RDP IV and Seeds of Life III to improve the newly created agricultural extension service, and increase budget resources for agricultural research and extension. 		ST

¹ The Action Matrix presents suggestions that are intended to serve as a starting point for the National Validation Workshop (NVW) discussions. The Responsible Agents for each action will be determined through the NVW.

² ■ Short-term (ST)= within one year ; ■ Medium-term (MT)= 1-3 years; ■ Long-term (LT)= more than 3 years

Issue	Recommended Action	Responsible Agent	Time-frame ²
	<ul style="list-style-type: none"> • Generate regular, reliable labor market data in order to better understand the scope of the skills gaps and better link training programs to market demand. 		MT
	<ul style="list-style-type: none"> • Support efforts to improve the VET system, including initiatives to improve the professional development of trainers, establish and implement the National Qualifications Framework, and adequately resource INDMO. 		LT
Improving access to land.	<ul style="list-style-type: none"> • Conduct a preliminary rural land tenure assessment which evaluates the nature of community ownership and use claims over areas of coffee estate land. • Evaluate the potential for expanding the <i>Ita Nia Rai</i> land registration program over critical areas of primary industry land, including some areas of coffee plantation. 		ST
Strengthening the business environment.	<ul style="list-style-type: none"> • <u>Business start-up</u>: Build capacity for MoJ and MTCI staff involved in registration and licensing, and establish a one-stop shop for business start-up with a quick incorporation and registration procedure and electronic sharing of information across ministries. 		MT
	<ul style="list-style-type: none"> • <u>Contract enforcement</u>: Develop a commercial arbitration or mediation facility, deliver training programs on commercial disputes for mediators and arbitrators, and provide training to Timorese businesses on the use of contracts. 		LT
	<ul style="list-style-type: none"> • <u>Access to finance</u>: Provide support to evolve the credit information reporting system into a full-fledged credit bureau. • Enable the provision of credit on the basis of contracts with reputable private sector companies by developing an awareness campaign and trainings for local financial institutions, coupled with the development of recourse mechanisms in the event of default. 		MT
INVESTING IN CRITICAL INFRASTRUCTURE TO FACILITATE INTERNATIONAL TRADE			
Improving road transportation and maintenance along trade corridors.	<ul style="list-style-type: none"> • Establish a trade activity monitoring mechanism to guide capital investment along trade corridors (Dili-Ermera and Dili to Mota Ain), and implement road maintenance and safety measures. 		MT
Congestion at Dili Port.	<ul style="list-style-type: none"> • Convert port to a modern configuration, and develop a new system of terminal management. 		LT
Efficiency and effectiveness of the customs service.	<ul style="list-style-type: none"> • Delegate Customs as the lead border agency responsible for coordinating border control, and continue to implement reforms to reduce port dwell time. 		MT

**SECTION I:
SOCIO-ECONOMIC SETTING, MACROECONOMIC MANAGEMENT
AND INTERNATIONAL TRADE**

CHAPTER 1: INTRODUCTION

1. **The Government of Timor-Leste (GOTL) is committed to the development of the non-oil economy by enabling the diversification of domestic production and trade integration.** A relatively large donor and security presence since the vote for independence in 1999 and a surge in petroleum receipts since 2004/05 have opened up new opportunities and challenges for the economy. Aside from gas and petroleum exports, Timor-Leste has a very small tradable sector. Diversifying exports and sources of growth is a long-term process. Addressing this challenge early is critical to promoting economic opportunities and mitigating the risks of adjustments related to volatile and finite hydrocarbon income and the temporary international presence.

2. **GOTL is using its rising petroleum receipts to address urgent needs, but the challenges are enormous for a new nation emerging out of conflict.** The country faces major infrastructure bottlenecks, a serious shortage of skilled manpower, and a business environment that is still in its nascent stage of development. Timor-Leste's poverty incidence is very high, with 50 percent of the population below the national poverty line. The manufacturing sector, which is dominated by small firms, is at its infancy and accounts for less than 4 percent of non-oil GDP. Urban unemployment is estimated to exceed 20 percent among males and 40 percent among the urban youth.³ Since 1999 the international community has supported Timor-Leste's efforts to develop democratic institutions and strengthen the economy's productive capacity.

3. **In the short and medium-term the agriculture sector has the greatest potential to expand exports whilst impacting positively on poverty alleviation.** Employment is critical to further consolidating peace and stability. Timor-Leste voted for independence in 1999, following twenty five years under Indonesian occupation, preceded by four centuries as a Portuguese colony. It became a sovereign state in May 2002 after two and a half years under the United Nations Transitional Authority for East Timor (UNTAET). There have been major strides in restoring security and stability after violent clashes in Dili in 2006 and the failed assassination attempts on the country's President and Prime Minister in February 2008. However, these crises act as important reminders of the fragility of post-conflict recoveries.

4. **Timor-Leste's export potential is constrained by internal supply side factors and not trade policies or external barriers.** Supply side and structural constraints include issues around factor inputs (land, skills, and critical infrastructure) and the business environment. These limit productivity and scale and are further compounded by weak market linkages. Transportation and trade facilitation costs are high due to transportation infrastructure bottlenecks and institutional capacity limitations. Petroleum receipts also create new challenges for encouraging private investment in the non-oil tradable sector due to potential Dutch Disease effects.

5. **The objective of this Diagnostic Trade Integration Study (DTIS) is to agree on priority policy actions to help overcome constraints to expanding agricultural exports in the near-term.** Achieving export growth and diversification can play a critical role to supporting overall economic growth and employment generation. Non-oil export growth is also important in light of the external sustainability risks of depending on exhaustible petroleum exports. Expanding output for local consumption is also a priority and could help support higher growth and employment generation and reduce dependence on imports. The DTIS complements other studies on domestic trade, and it does not prioritize one over the other. Policy actions to expand exports will impact positively on domestic trade. Timor-Leste faces the challenge of having to mostly create a non-oil export sector (and its supporting institutions), rather than reviving one that is stagnant or destroyed because of conflict. The context is quite unique even when compared to similar small-island or post-conflict countries.

³ IBM 22.

6. **The DTIS recommends ways to achieve short-term results whilst also providing a first step to developing a longer-term trade strategy.** The latter can potentially be implemented through Tier 1 and Tier 2 projects under the Integrated Framework (IF). The DTIS was led by the World Bank at the request of the GOTL. The study is based on two missions conducted in November 2009 and January 2010. It builds on the existing work and close consultations with government counterparts, development partners, private sector, and civil society. Data limitations have constrained some of the analyses.

7. **The DTIS covers five main sections.** Section I looks at the key drivers of economic growth, trends in poverty, and macroeconomic policies as they relate to trade and external competitiveness. It then analyzes the patterns of Timor-Leste's international trade and its trade policy regime. Section II of the DTIS analyzes the export potential in the agriculture sector. Section III analyzes how structural issues pertaining to factor inputs and the business environment impact on the export sector, and it recommends possible measures to help improve productivity and reduce costs. Section IV examines the major transport and trade facilitation issues. Section V presents the implementation arrangements and next steps for the DTIS.

CHAPTER 2: ECONOMIC PERFORMANCE, POVERTY, AND MACROECONOMIC MANAGEMENT

A. DRIVERS OF ECONOMIC GROWTH

1. **Timor-Leste has traditionally been an agricultural society with the public sector as the main driver of economic activity.** Even before Independence, over 50 percent of Timor-Leste's GDP was derived from agriculture and government services. Aggregate demand was driven by the large provincial administration and public sector capital projects. Modern industrial activity was less than 8 percent of non-oil GDP.⁴ Coffee was and remains the main non-oil export, though dependence has increased as other exports such as sandalwood have declined.⁵ Timor was dependent on transfers from Indonesia before 1999 and from Portugal before 1975 to finance its fiscal and external deficits.

2. **Economic performance from Independence until the break out of violent clashes in Dili in 2006 was mixed and dependent in large part on changes in international presence.** The vote for independence in 1999 was followed by widespread carnage and destruction. Seventy percent of the country's infrastructure was destroyed and the economy contracted by over 30 percent. The economy started to recover in the following two years with increased agricultural output, reconstruction activity, and consumption related to the growing international presence. Economic activity, however, was (and remains) largely concentrated in Dili. It is estimated that 65 percent of jobs created by the United Nations (UN) and half of non-oil GDP before 2005 were generated in the capital.⁶ The 2004 census estimates that the population of Dili increased from 100,715 people in 1999 to 173,541 in 2004.⁷ By 2006, economic opportunities had declined significantly, in part due to the scaling back of UN activities since 2004, exacerbated by relatively low public spending in economic sectors since Independence. The number of unemployed youth had increased.

3. **Since 2004/05, Timor-Leste has gone from aid dependence to resource abundance, with the oil and gas receipts coming rapidly on stream.** After contracting in 2006 (- 5.8 percent), the economy started to recover with an estimated growth of 12.8 percent in 2008, driven by rapidly rising government expenditure and the relatively large remaining international donor and security presence (Figure 2.1). Data on economic output is limited, but indications are that demand is fuelled by increased private consumption and public investment in infrastructure. Indicators include a doubling in imports of capital goods (electrical machinery and other equipment used in construction) in the first two quarters of 2009 compared to the same period in the previous year. The number of registered vehicles has gone from around 5,700 in 2008 to 11,500 in 2009, with a noticeable increase in traffic in Dili. The number of vehicles for commercial use in particular has more than doubled in one year. Electricity consumption has increased by around 50 percent (see Annex 2.1 on access to energy). The number of mobile phone subscribers has nearly tripled from 125,000 in 2008 to 351,000 in 2009 following Timor Telecom's efforts to increase services and coverage after the government announced that it was considering breaking the monopoly.

⁴ World Bank, *East Timor: Policy Challenges for a New Nation, Country Economic Memorandum* (World Bank, 28 May 2002) paragraph 2.1.

⁵ The share of coffee in total exports has increased from between 58 percent and 82 percent (according to Fortuna (1971) 210, as quoted in World Bank, *East Timor* 3) to over 95 percent post-Independence.

⁶ M. Carnahan, et al., *Economic Impact of Peacekeeping: Interim Report Phase I* (UN Department of Peacekeeping Operations, 2005).

⁷ Ben Moxham, *State-Making and the Post-Conflict City: Integration in Dili, Disintegration in Timor-Leste*, Crisis States Working Papers Series No.2. (London: Feb 2008) 13.

Figure 2.1: Real Non-Oil GDP by Sector (% change)

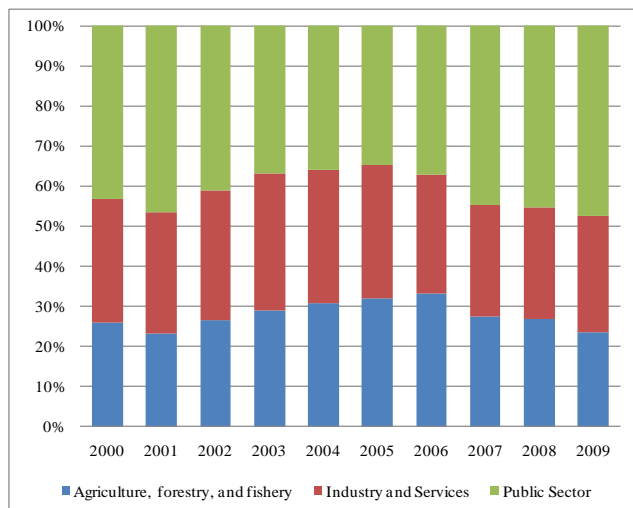


Source: IMF, *Democratic Republic of Timor-Leste: Selected Issues and Statistical Appendix* (IMF, Jun 2008)

4. Private investment on the other hand is low, as are formal employment opportunities.

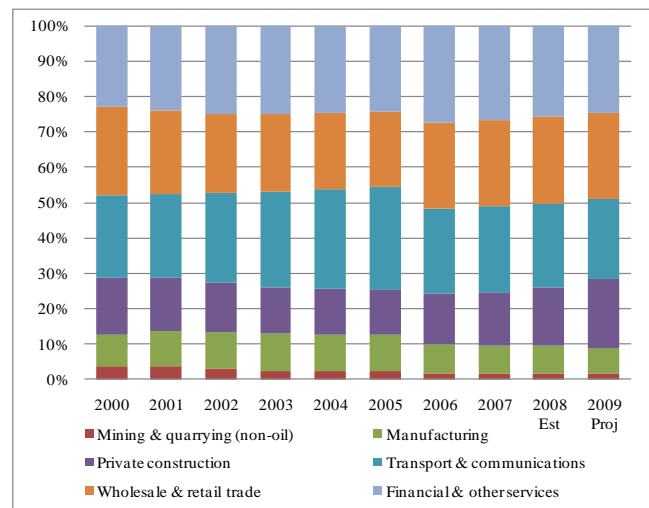
The agriculture sector over the past seven years has on average accounted for around 30 percent of non-oil GDP (Figure 2.2). In industry and services, there has been quite rapid growth in private construction, wholesale and retail trade, hospitality services, and transport and communications (Figure 2.3). As expected with post-conflict economic reconstruction, most of the expansion has been in the non-tradable sectors, driven by temporary inflows that tend to concentrate economic activity geographically and sector-wise. As a result, tradable sectors like manufacturing and agriculture have had relatively less investment, though they will benefit from the rehabilitation of critical infrastructure and utility services over the medium to long-run. In addition, private sector growth and investment in the near-term remains constrained by a cycle of low skills, productivity, and competitiveness. Although the official unemployment rate was below 7 percent in 2007,⁸ the private sector employs only about 40,000 people (around 12 percent of the labor force) and is estimated to expand by only 500-600 jobs per year, far below the estimated 15,000 entering the labor force each year.

Figure 2.2: Composition of Non-Oil GDP (excluding UN)



Source: IMF 2008

Figure 2.3: Composition of Industry and Services



Source: IMF 2008

⁸ Gaurav Datt and Martin Cumpa, *Timor-Leste: Poverty in a young nation report* (November 2008, Joint Publication of MOF, Direcção Nacional de Estatística, and World Bank).

B. MACROECONOMIC MANAGEMENT AND COMPETITIVENESS

5. **Timor-Leste is a small open economy, where the macroeconomic environment has been bolstered by rapidly rising petroleum revenue since 2004.** If we leave aside the oil and gas sector, however, external linkages through trade, investment, and financial markets are small. The country has therefore been sheltered from the impact of the most recent global economic crisis. A prudent policy for managing petroleum revenue has contributed to fiscal and external surpluses, the accumulation of petroleum savings, and an important buffer against potential shocks.

6. **Timor-Leste in 2005 established a Petroleum Fund (PF), which provides an important instrument for ensuring transparency and accountability in petroleum revenue management.** All tax and royalty receipts from petroleum projects are paid into the PF. Withdrawals from the PF are channeled through the national budget and annual withdrawals are guided by Estimated Sustainable Income (ESI), which is the sustainable interest income from petroleum wealth.⁹ Using ESI to inform annual fiscal envelopes helps to promote sustainable financing of the budget. But the ESI framework needs to be complemented by careful expenditure planning. ESI is vulnerable to oil price volatility, and it is important that this does not feed into the level of government spending. Annual petroleum receipts have jumped from \$140 million in 2004 to \$1.66 billion in 2009 after peaking at \$2.2 billion in 2008 following the surge in oil prices (Figure 2.4). PF assets reached \$5.8 billion by the end of the first quarter of 2010 (see Figure 2.5 for PF assets from 2006-2009). Prudent investment policies have protected Timor-Leste's PF from the global economic crisis.

Figure 2.4: Annual PF Receipts (\$ million)

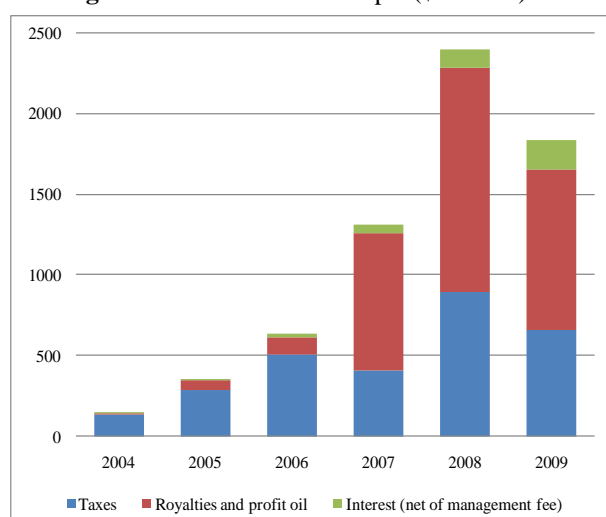
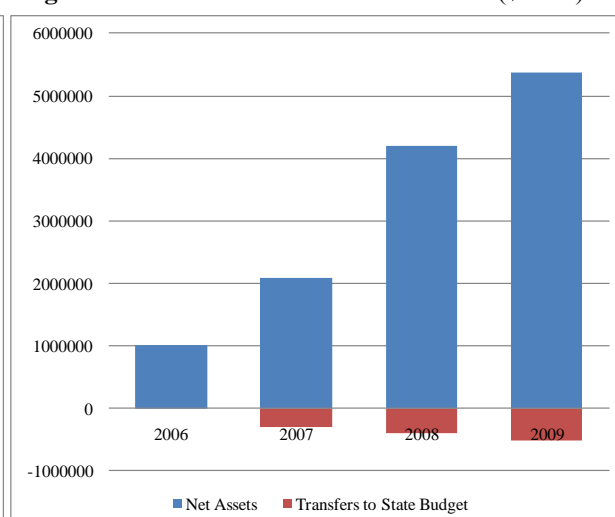


Figure 2.5: PF Net Assets and Withdrawals (\$ '000)



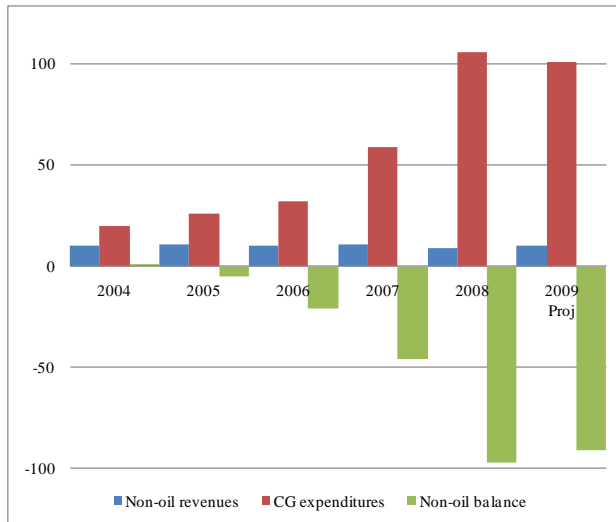
Source: Banking and Payments Authority

7. **Since 2006/07 fiscal expansion has picked up pace rapidly, reflecting pressing needs and the GOTL's objectives of promoting social stability and growth.** Government expenditures rose from 32 percent of non-oil GDP in 2006 to 106 percent in 2008 (Figure 2.6). Budget execution has increased significantly from 49 percent in 2006 to 80 percent in 2008 (Figure 2.7). Annual government spending has gone from \$180 million in 2006/07 to around \$600 million in 2009 due to rapid growth in public transfers and infrastructure spending, which played a critical role in promoting short-term stability and economic recovery. Withdrawals from the PF in 2009 exceeded ESI for the first time.

⁹ ESI is calculated as 3% of petroleum wealth (assumed real rate of return), which is PF savings plus the net present value of projected future receipts. Withdrawing up to ESI is expected to maintain the value of petroleum wealth constant in real terms and is the amount that can be spent in perpetuity.

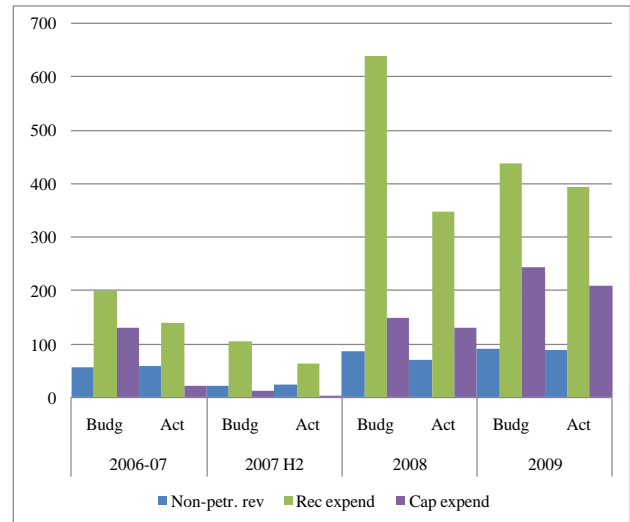
8. **The government has indicated its intention to moderate spending growth but has also started to make plans to access credit.** Planned spending in 2010 (excluding potential debt) is expected to be around \$838 million. The government is looking to improve non-petroleum receipts through increased compliance in tax payments. This is critical given low non-oil revenue collection at only 11 percent of non-oil GDP. Whilst this is not an issue in the short-term, a substantial non-oil fiscal deficit, which has increased from 46 percent of non-oil GDP in 2007 to 97 percent in 2008, may pose risks to future sustainability. In particular, it may mean less flexibility for adjustments in the future given the increase in non-discretionary spending such as: the wage bill (around 50 percent more than domestic non-oil revenue); contingent liabilities including civil service pensions; and recurrent demands of rising infrastructure spending.

Figure 2.6: Fiscal Trends (% of non-oil GDP)



Source: Staff estimates

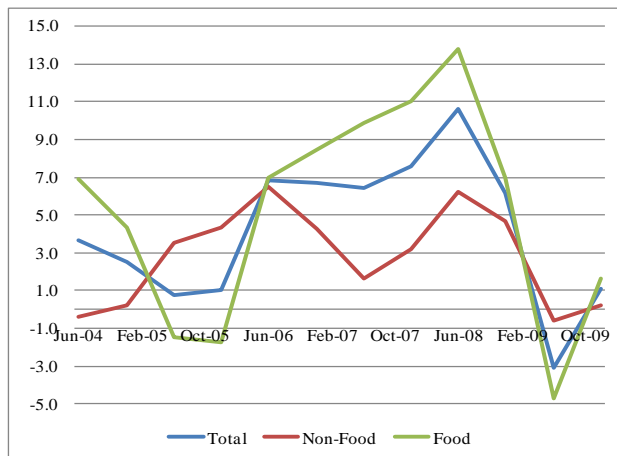
Figure 2.7: Budget Execution (% of budget)



Source: Staff estimates

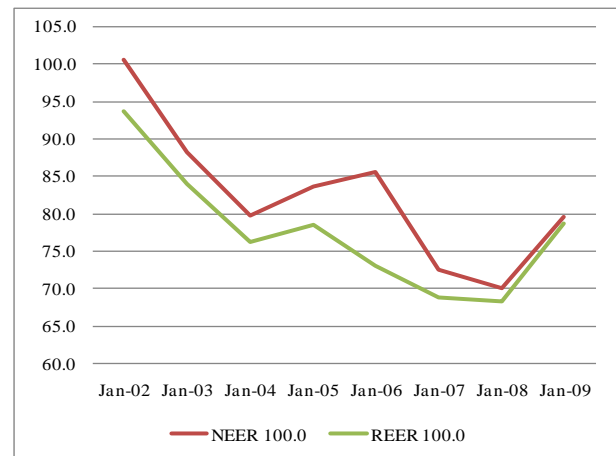
9. **Inflation in Timor-Leste since Independence has been relatively low and largely determined by external developments.** Inflation accelerated between 2006 and 2008, but this was related to supply disruptions from the crisis and the hike in international food prices. Average twelve-month inflation between 2005 and 2009 was around four percent. Official statistics show some deflation in the first half of 2009 due to falling commodity prices and an appreciating US Dollar.

Figure 2.8: Inflation (12-month % change)



Source: National Directorate of Statistics, Ministry of Finance

Figure 2.9: Nominal and REER (2001=100)



Source: Banking and Payments Authority

10. **Timor-Leste's real effective exchange rate (REER) has fallen relative to Australia and Indonesia since Independence.**¹⁰ A falling REER means that the cost of purchasing goods and services in Timor-Leste is declining compared to other countries, which in turn should impact positively on the demand for exports.¹¹ The REER depreciation was largely due to an appreciation of the Australian Dollar against the US Dollar and lower inflation in Timor-Leste relative to Indonesia.¹² REER appreciated sharply from mid-2008 to the first quarter of 2009 due to the appreciation of the US Dollar but then fell back down to its original level in the second half of 2009. Although, in the short-term, exports are constrained by other structural factors and supply side constraints as discussed below (factor inputs and the business environment), it is critical that structural reforms are complemented by a sound exchange rate policy and policies to maintain low inflation.

11. **Adopting the US Dollar as its official currency in January 2000 has anchored Timor-Leste's economy to monetary policy in the US and helped to control inflation.** It has also helped to keep the real exchange rate under control in the face of a windfall in petroleum receipts. Under these circumstances, an independent currency would put upward pressure on the nominal exchange rate and on the relative prices of non-traded goods. This can have two effects: (i) increased investments in the non-tradable sector at the expense of the tradable sector; and (ii) an appreciation in the real exchange rate. This would exacerbate the negative impact on incentives to invest in the existing export sector and in export diversification and therefore risk further impeding the growth of the non-oil tradable sector in Timor-Leste.¹³

12. **There is therefore no clear case for moving away from official dollarization in the short-term, particularly given the increased dependence on the oil and gas sector.** International petroleum prices are quoted in US Dollars. Official dollarization helps to eliminate exchange rate fluctuations as a source of volatility for oil revenues. An independent currency would likely need a peg to establish credibility and manage inflation. This would be costly given Timor-Leste's large trade deficit. Capacity to implement prudent monetary policy is weak given that this is a new area. An independent monetary and exchange rate policy would divert limited capacity away from other priorities. Finally, even if Timor-Leste were to have an independent monetary policy, it is not clear that it would reap the intended benefits because of other binding constraints to foreign investment and export growth.

13. **Sound policies have therefore helped to control inflation and REER, though this was set against a high base level of prices and wages.** This is because inflation in 1999 reached 140 percent following supply disruptions and the influx of around 15,000 expatriates. This was an inevitable situation because of the external support required to reestablish stability and start the reconstruction process. Aggregate demand surged, which put a major premium in particular on the limited supply of skilled Timorese. There was no downward adjustment in prices and wages after the scaling back of international presence in 2004, which led to an increase in unemployment. Demand after 2006/07 picked up as a result of the partial return of international support and rapid fiscal expansion. This has helped to shore up the price of non-traded goods and services (e.g. construction, hospitality services), which is not unexpected when a country is going through massive reconstruction and rehabilitation. As discussed earlier, this also means that there is relatively more investment in these areas compared to the tradable sector.

¹⁰ REER is a weighted average of the nominal exchange rates of trading partners. Weights are based on the trade shares. REER adjusts for inflation differentials with the countries whose currencies are included in the basket.

¹¹ The nominal exchange rate here is the foreign currency price of domestic currency as used by the IMF (i.e. amount of foreign currency that can be bought for one dollar), rather than the domestic currency price of foreign currency (i.e. amount of dollars that can be bought for one unit of a foreign currency). Therefore, when computing REER, a decline means 'depreciation' of REER.

¹² Tobias Ramussen, "Inflation and Competitiveness," *2008 Article IV Consultation – Staff Report* (IMF, 2008).

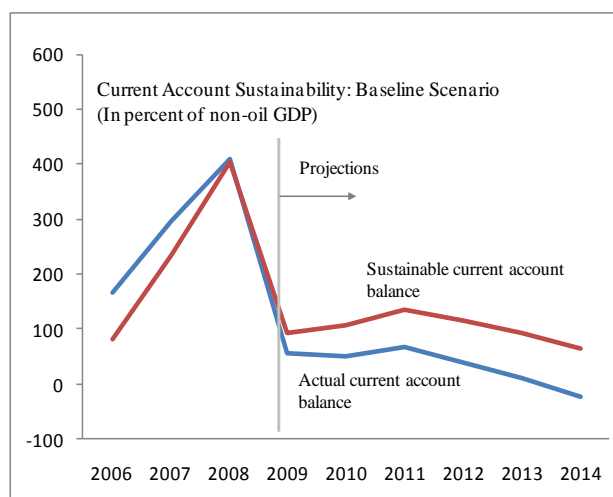
¹³ Through adoption of the US Dollar and control of inflation, Timor-Leste has not explicitly faced a Dutch Disease problem.

14. **It is therefore important that ongoing efforts to control inflation are complemented by fiscal policy that helps to increase productivity and competitiveness in the economy.** This should help to incentivize the private sector to diversify its investments. This will require careful prioritization of government spending with adequate attention to quality so as to prevent diminishing returns on growth and poverty reduction impacts. Continued investments in skills development, critical infrastructure, and structural reforms, such as liberalization of telecommunications, will be important for promoting productivity and competitiveness.

15. **It is clear that government spending in the short-term is likely to be high, though this will need to be aligned with absorptive capacity.** Government spending will be critical to address multiple challenges: massive deficits in public service delivery; social stability concerns; poor infrastructure; and a nascent private sector. But fiscal expansion could create supply bottlenecks and put upward pressure on prices in light of absorptive capacity constraints. These pressures are contained to some extent by the import-intensity of government spending. But imports are also dependent on domestic supply networks, which are facing increased pressures due to growing demand.

16. **In addition to its potential impact on productivity and competitiveness, fiscal policy is also one of the main determinants of external sustainability.** Timor-Leste's external balances are supported by petroleum receipts. In 2009, the current account surplus is estimated at 191 percent of non-oil GDP.¹⁴ To maintain external sustainability, the government should keep spending on a sustainable path, thereby managing the demand for imports and helping to control inflation and avoid sustained REER appreciation. In this regard, the government's current policy of saving the majority of petroleum receipts in the PF will continue to provide an important buffer against external shocks.

Figure 2.10: Current Account Sustainability (% of non-oil GDP)



Source: IMF 2009

17. **An added consideration to external sustainability is the government's plan to access external credit.** Timor-Leste currently has no external debt. However, the government has indicated its intention to borrow to finance infrastructure projects. An updated *Law on Budget and Financial Management*, approved by Parliament in November 2009, provides the legal basis for borrowing. Government borrowing may make sense as an alternative to PF draw downs if foreign loans are on concessional terms, include technical assistance (TA), and support sound projects.

¹⁴ IMF, *Democratic Republic of Timor-Leste: 2009 Article IV Consultation—Staff Report* (IMF, Jul 2009).

18. **Debt management capacity and strategy would need to be built from scratch to assess all terms and conditions and ensure proper coordination with macroeconomic policies.**¹⁵ This is critical to avoid risks of debt distress, particularly for small island countries like Timor-Leste. Government expenditure in small states as a proportion of total economic activity is often larger compared to bigger countries where the public sector benefits from economies of scale. This can also be due to factors that are outside of government control, for example:¹⁶ (i) remoteness and lack of external linkages, which lead to governments playing a bigger role in the economy and incurring much higher unit costs for the delivery of social and infrastructure services; and (ii) lack of diversification and vulnerability to shocks, leading to greater recourse to counter-cyclical spending. These factors reinforce the need for thorough fiscal analysis that assesses the trade-offs of different budget financing options and gives due attention to prioritization and quality of spending. Otherwise pro-cyclical spending in a weak capacity environment could not only erode the real value of petroleum wealth and future ESI but also increase recourse to external debt to respond to short-term shocks.

C. CONCLUSION

19. **The implementation of sound policies to date have helped to maintain macroeconomic stability and contributed to external competitiveness.** Fiscal policy has expanded rapidly to meet pressing needs. This was facilitated by the rapid surge in petroleum receipts. The GOTL's quick and decisive responses have contributed to a marked improvement in security and economic recovery from a very fragile post-conflict situation in 2006/07. Also, the policy of official dollarization has helped to contain inflationary pressures.

20. **The main challenge going forward is to effectively use fiscal policy to promote productivity, competitiveness, and diversification in the non-oil economy.** Continued adherence to the principles of the PF will maintain transparency and accountability. This has to be complemented by careful expenditure planning to promote discipline, prioritization, and quality. This should provide the basis for assessing trade-offs between different budgetary financing options and ensuring sustainability by avoiding the depletion of the PF or a situation of debt distress. Macroeconomic policies aimed at promoting productivity and competitiveness in non-oil sectors are critical. Unless these are tackled early, there are risks of sharp economic adjustments once these resources are depleted (or the international presence has scaled back) because the economy is not able to support its prior over-reliance on off-shore oil and gas.

¹⁵ World Bank, *Debt Sustainability Analysis in Oil-Rich Developing Countries*, PRMED Note (PREM Anchor, Jul 2005).

¹⁶ Stephanie Medina Cas and Rui Ota, "Big Government, High Debt, and Fiscal Adjustment in Small States," *IMF Working Papers*, WP/08/39 (Feb 2008).

CHAPTER 3: INTERNATIONAL TRADE PATTERN AND TRADE POLICY REGIME

A. TRENDS IN TIMOR-LESTE'S FOREIGN TRADE

1. One of the objectives of this chapter is to provide background information and baseline data on Timor-Leste's foreign trade structure and its recent pattern. It will highlight Timor-Leste's very limited trade integration on the export side. This information and some cross-country comparisons of trade performance of other small island economies will shed light on the scope of additional growth-enhancing trade integration that could be achieved by tackling the key constraints to export competitiveness. This chapter also assesses Timor-Leste's trade policy regime with view to showing that it is not a constraint to competitiveness. In addition, it examines the institutional aspects of trade policy making, particularly in the area of policy coordination. In the last section, the government's high priority objective of accession to the Association of Southeast Asian Nations (ASEAN) is examined with a focus on the key accession requirements that Timor-Leste needs to meet. Against this background, the chapter also looks at the appropriate timing of Timor-Leste's World Trade Organization (WTO) accession.

Exports, Imports, and Developments in International Trade Pattern

2. **Timor-Leste's *commodity* trade structure since the early part of the current decade reflects the country's current stage of development.** The economy consists of a sizable subsistence agriculture sector (about 30 percent of GDP), the construction sector (10-12 percent of GDP), a fairly underdeveloped small-scale manufacturing sector (about 4 percent of GDP), and, as expected, a large services sector (56 percent of GDP) dominated by the public sector.

Exports

3. **This economic structure translates into a very narrow export base and an import composition that is highly diversified in all major categories of imports.** The principal (non-oil) merchandise export item is green *coffee* (see Chapter 4 for details on the coffee subsector). Since 2004, the share of coffee in total merchandise exports fluctuated in the range of 86 to 99 percent (Table 3.1). The remainder has included small quantities of vanilla, hardwood, candlenut, candlenut oil, cattle, and handicraft exports.¹⁷

Table 3.1: Timor-Leste's Merchandise Exports, 2004-2008

		2004	2005	2006	2007	2008
		(In millions of U.S. dollars)				
				/a	/b	
Merchandise Exports (fob):	/*	7.8	8.1	9.0	7.0	12.7
Of which: Coffee		6.9	7.6	8.6	6.0	12.6
Other	/**	1.0	0.5	0.4	1.0	0.1
Memo item:						
Re-exports	/1	98.0	36.2	52.2	na	36.5

1. Sources: The Timor-Leste authorities; IMF 2009, Table 5, 29.

2./a /b: Trade data for June-July 2006, February-March 2007, and August-December 2007 were not recorded (not even in the partners' data). It is not known to what extent figures for these months of the relevant years were included in the subsequent months. Estimates of export figures for 2006 and 2007 are taken from the IMF's 2009 Article IV Staff Report.

3. /*: These figures exclude oil and gas receipts. The latter are recorded in the BOP under the income account. This is due to the lack of detailed data on the oil and gas sector's production, trade, and service activities.

4. /**: Includes small amounts of vanilla, hardwood, and some handicraft exports. Unrecorded informal exports of cattle to West Timor (Indonesia) are taking place—a figure of 3000 head per year has been mentioned to the mission.

¹⁷ For further details on exports, also see: IBM 29-30.

5./1: Re-exports include repatriated UN peace-keeping equipment, expatriate cars, and other durables.

4. **Timor-Leste's domestic production structure is very narrow and, more importantly, it is not competitive yet to achieve export growth and diversification.** However, with the help of sizable development assistance since the beginning of the current decade and petroleum receipts since 2004/05, economic activity is continuing to pick up (see Chapter 2 on macroeconomic performance). The ongoing efforts (albeit slowly) aimed at improving the quality of business environment, infrastructure upgrading, and human resources development should foster domestic and foreign investment and help diversify Timor-Leste's production base.

5. **Some success in export growth and diversification is possible in the near-term without waiting for the longer-term structural reforms to address all the key constraints to private activity.** *Support programs that are designed to address some of the cross-cutting constraints in targeted areas are already creating production responses and export potential.* In the area of cash crops in agriculture, coffee is such an example. With support from USAID, the Cooperativa Café Timor (CCT) was established in 1994 with a view to helping farmers export their organic, quality green coffee beans. By providing technical support, access to some credit and equipment, and marketing services (collecting coffee from the farm gates, processing, and exporting), the CCT has basically been addressing some of the key constraints facing poor farmers, including access to credit and filling the agglomeration and skills gaps.¹⁸

6. From the outset, the strategy has been to target the organic coffee niche markets with the involvement of Starbucks. The strategy has worked in attracting higher unit prices for better quality green coffee beans. *What is also important is that today coffee production, stimulated by exports, provides livelihood to one quarter of farming families in rural Timor-Leste.* Close to 22,000 members of the cooperative are directly involved in organic coffee growing, plus indirect employment is being created through backward and forward linkages.¹⁹ Expanding such focused efforts targeted at the development of crops with export potential could have significant payoff in the near-term in terms of export growth and diversification, employment generation, and poverty alleviation. Today, in addition to the CCT, there are three private firms that also buy coffee cherries directly from the farmers, process them, and export green coffee beans. For the whole economy, coffee is now a source of livelihood for around 67,000 households, representing approximately 30 percent of the population.²⁰

7. **Recent studies and interviews with traders indicate that there is significant scope for increasing coffee yields and exports, and a similarly positive export outlook appears to exist for several other agricultural products, some of which are already being exported.** Using value chain analysis (VCA), Chapters 4 and 5 (in Section II) provide more detailed analyses of output/export growth potential of *coffee* and several agricultural products with export potential, including *mungbeans, cattle, and horticulture products*. By way of proxy, the findings of these value chain analyses will help identify some of the most critical constraints to export competitiveness of other potential agriculture-based exportable products. In addition to these products, there are other agricultural products that are already being exported. For example, a niche export market strategy is being pursued for *vanilla* products through the organic production and certification approach. *Cocoa* and *cashew nuts* are other cash crops which likely have export potential. If an early effort is made to develop a credible sanitary and phytosanitary standards (SPS) capacity, export potential could be created in other high value-added horticulture products, including fresh vegetables and fruits to neighboring countries (details are discussed in Chapters 5 and 6).

¹⁸ Agglomeration of certain activities/services in one area or a center provides economies of scale and cuts business costs in the provision of certain essential inputs, access to markets, retail/wholesale trading, and exporting. The CCT is providing some of these advantages with a large number of coffee farmers as its members (see Chapters 4).

¹⁹ IBM 17.

²⁰ MAFF, Directorates of Livestock and Agribusiness, *Commodity Profile Series: No. 4 Version 1 – Cattle* (Dili: MAFF, Feb 2008).

8. **In the medium and long-term, the development of commercial fisheries and the tourism sector could offer significant export potential with considerable employment generating linkages to other activities.** Assessment of these activities will not be carried out in this study since the focus of the DTIS is on near-term opportunities.

9. **The exclusion of oil and gas export proceeds from Timor-Leste's merchandise export figures, while dictated by the lack of detailed data, is perhaps preferable from the perspective of strategic policy making.** Merchandise export figures given in Table 3.1 above *do not include* oil and gas exports from the Bayu Undan field in the Timor Sea. The main reason is the lack of detailed data on the oil and gas sector's production, trade, and service activities.²¹ Oil and gas exploration, extraction, and export activities are carried out by an international consortium in the non-disputed waters off the southern coast of Timor-Leste. Exporting from the latter field started in 2004, and since then proceeds from oil and gas exports received by Timor-Leste has been steadily increasing in tandem with the increases in international oil and gas prices and in export volumes. In 2008, the oil and gas receipts reached \$2,284 million (or 458 percent of non-oil GDP) —see Timor-Leste's balance of payments (BOP) presented in Statistical Appendix 1. In the current presentation, where oil and gas proceeds (plus interest earnings from the PF) appear as 'income' in the BOP's current account, *non-oil merchandise export figures strikingly demonstrate how narrowly-based, small, and slow growing Timor-Leste's non-oil exports are.*

Table 3.2: Non-Oil Merchandise Exports by Country of Destination, 2004-2008

	2004	2005	2006	2007	2008	Average Shares /1
	(% share in Timor-Leste's exports)					
Destination Countries:						
Australia	16.2	5.5	3.6	na	2.1	6.8
Germany	5.6	20.7	24.2	na	26.7	19.3
Indonesia	16.2	5.0	13.1	na	16.7	12.8
Portugal	7.5	12.0	2.1	na	4.5	6.5
Singapore	2.1	1.1	6.3	na	11.1	5.2
United States	45.4	49.1	40.4	na	26.6	40.4
Other	7.0	6.6	10.3	na	12.3	9.1
Total	100.0	100.0	100.0		100.0	100.0

Sources: The Timor-Leste authorities; IMF 2009, Table 5, 29.

/ 1: Average of 2004, 2005, 2006, and 2008.

10. **With respect to the direction of Timor-Leste's non-oil merchandise exports, the US, Germany, and Indonesia are the major destination markets for Timor-Leste's exports (Table 3.2).** In terms of four-year averages, the US appears to be the principal export market, followed by Germany and Indonesia. In terms of regional shares, the European Union (EU) share in Timor-Leste's exports amounts to around 26 percent (when only Germany and Portugal are included), and the ASEAN share is about 18 percent (Indonesia and Singapore).

11. **Since the early years of the current decade, proceeds from Timor-Leste's services exports have significantly exceeded revenues from non-oil merchandise export in recent years (Table 3.3).** To a large measure, this is related to the presence of a large UN Mission and is not a reflection of long-term trends developing in the economy. During 2006-2008, export of services fluctuated in the range of \$34 million and \$63 million, with the receipts coming mainly from exports of travel services (40 to 59 percent) as well as from 'other services,' including government services.²² The hotels and restaurants in Dili are generating exports of services for the international community as well as for occasional tourists and businessmen. Exports of 'transportation' services have remained below \$1.0 million, which is not surprising given the small size of the transportation sector.

²¹ IMF 2009.

²² Source: Table 3.3; BPA.

12. **In the medium and long-term, as the tourism sector develops, revenues from exports of tourism services could potentially dominate all other non-oil exports.** As noted earlier, an assessment of Timor-Leste's tourism potential is not within the scope of this study. However, *this DTIS recommends that a tourism study be carried out to analyze the country's prospects for developing a viable tourism sector, perhaps with a focus on niche tourism in the medium-term and then a more diversified tourism activity in the long-term. Such a study also needs to cover the enabling and environmentally responsible legal and regulatory framework for the sector.*

Table 3.3: Trade in Goods and Services, Current and Trade Account Balances, 2004-2008

	2004	2005	2006	2007	2008
	(In millions of U.S. dollars)				
Current Account (including international assistance)	64	260	540	1,177	2,021
Trade Balance: /a	-115	-104	-91	-169	-339
Exports of goods /b	8	8	9	7	14
Of which: coffee	7	8	9	6	12
Imports of goods	122	112	101	176	353
Services (net):	-187	-131	-199	-263	-407
Exports	47	37	34	63	61
Of which: Travel	19	21	20	26	25
Imports	234	168	233	325	468
Of which: UN and donor-related	201	137	204	286	369
Income (net)	151	363	645	1,331	2,415
Of which: Oil and gas receipts and interest	141	354	637	1,312	2,399
Current Transfers (net)	215	133	185	278	351
Of which: International assistance	215	133	184	281	355
	(In percent of non-oil GDP)				
Current Account	21	78	165	296	405
Trade balance	-37	-31	-28	-43	-68
Services (net)	-60	-39	-61	-66	-81
Income (net)	49	109	197	335	484
Current transfers	70	40	57	70	70
	(In millions of U.S. dollars)				
Memorandum items:					
Non-oil GDP at current prices	309	332	327	398	499

Source: IMF 2009, Table 5, 29.

/a: With respect to merchandise import figures for years 2006 and 2007, there are differences between Timor-Leste's recorded customs data on imports and the IMF's BOP import figures for the same years. This is because for some months of 2006 and 2007 import figures were not entered in the Customs database. The IMF's BOP data provide estimates of merchandise imports for 2006 and 2007.

/b: These merchandise export figures exclude proceeds of oil and gas exports from the Bayu Udun field. This is due to the lack of detailed production/export data on the oil/gas sector.

13. **Market access has not been a major issue for Timor-Leste's exports to date even though Timor-Leste is neither a member of the rules-based multilateral trading system governed by the WTO nor a regional preferential trading arrangement such as the ASEAN.** Developed and major developing members of the WTO grant 'most-favored-nation' (MFN) treatment to the non-member LDCs (least developed countries). In addition to such non-discriminatory tariff treatment of their exports, LDCs are granted preferences for their exports from the major trading nations whether or not they are members of the WTO or of any regional preferential trading arrangement (PTA). Such preferential programs usually provide for *duty-free* and *quota-free* access for exports of LDCs —e.g. the EU's 'Everything-But-Arms' (EBA) program and the generalized system of preferences (GSPs) granted by the US, Australia, Canada, New Zealand, and other developed and some of the emerging economies. However, to benefit from such preferences, exports of LDCs usually must satisfy the

‘rules of origin’ (ROO) requirements²³ of the importing countries as well as their stringent SPS standards.

14. **Being a LDC, Timor-Leste receives and will continue to receive preferential tariff treatment from the EU, the US, Australia, and many of her other major trading partners under various bilateral and regional preferences.** Table 3.4 lists import tariffs facing Timor-Leste’s coffee and propane gas and liquefied butane exports from the Bayu Undan field. Regarding coffee, most destination countries have zero tariffs, and among the major trading partners, only Indonesia has 3 percent tariff, which is not very high.

15. **Looking ahead, the most critical market access issue that Timor-Leste’s exports of agricultural products and livestock will face is the animal, plant, and food safety (i.e. SPS) standards of the importing countries.** *At present, Timor-Leste’s coffee and candlenut oil exports receive their SPS certification in Singapore before they are shipped to their export destinations.* The Indonesian Government recently informed the GOTL that a SPS system must soon be in place if Timor-Leste wants to continue exporting agricultural products to Indonesia (Chapter 6 below discusses this critical ‘market access’ issue facing Timor-Leste’s agricultural and livestock exports).

Table 3.4: Import Duties in the External Markets Facing Timor-Leste’s Major Commodity Exports

Market	Coffee, not roasted (HS 090111)		Propane Liquefied (HS 271112)		Butanes Liquefied (HS 271113)	
	Imports (\$ '000)	AVE Tariff (%)	Imports (\$ '000)	AVE Tariff (%)	Imports (\$ '000)	AVE Tariff (%)
Australia	1,279	0	0	0	0	0
Canada	1,354	0	0	0	0	0
China	59	8	0	5	0	8
Germany	4,165	0	0	0	0	0
Indonesia	2,883	3	0	5	0	5
Japan	202	0	63,574	0	74,701	0
Malaysia	0	0	0	0	0	0
New Zealand	338	0	0	0	0	0
Portugal	606	0	0	0	0	0
Singapore	0	0	0	0	0	0
United States	0	0	0	0	0	0
Vietnam	0	30	0	8	0	8
World, total	11,616		63,574		74,701	

Note: Based on partners' import data in 2008; ad valorem equivalent (AVE) tariffs are based on 2008/09 where data are available. Sources: Based on UN COMTRADE Statistics (imports) and ITC/UNCTAD/WTO Market Access Map (tariff data).

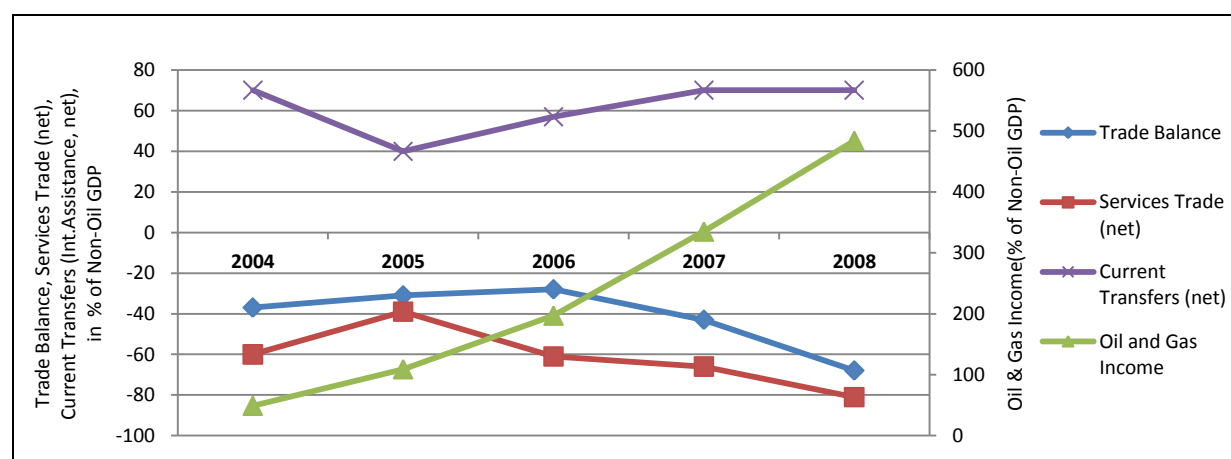
Imports

16. **Timor-Leste’s imports have dominated the country’s merchandise trade.** This is a result of the need to import a broad range of goods and services and the high import intensity of the reconstruction efforts launched ten years ago. Low levels of goods exports have financed only 4.0 to 6.6 percent of goods imports (Table 3.3). During 2004-2008, the commodity trade deficit stayed in the range of 28 to 68 percent of non-oil GDP. In the absence of extra-ordinary financing sources, such large trade deficits could not have been sustained even for a shorter time period. For Timor-Leste, relatively large inflows of development assistance—averaging \$234 million annually during 2004-2008—and oil and gas receipts (plus interest earnings from the PF) more than offset the trade deficit, leading to a sizable external current account surplus (see Table 3.3, Figure 3.1, and Statistical Appendix 1). To a greater degree, the reconstruction activities supported by development assistance since the early years of the current decade have impacted the level and composition of merchandise imports (Table 3.5). As the reconstruction activity levels off significantly, the level and composition of merchandise imports that will emerge will depend on the pace of growth of private and public

²³ The ROO requirements of the importing countries refer to the restrictions that exports satisfy a minimum amount of domestic value-added creation by the exporting countries benefiting from preferential tariffs. This is to prevent re-exportation of third country products that are not granted preferential treatment.

sector activities,²⁴ their changing roles, and also on the movements in international prices and exchange rates.

Figure 3.1: External Trade Balance, Services Trade, Net Income (Oil & Gas Receipts), and International Assistance (in % of Non-Oil GDP)



Source: Statistical Appendix 1

Table 3.5: Timor-Leste's Merchandise Imports, 2004-2008

	Panel I: Composition of Timor-Leste's Imports (values)				
	2004	2005	2006	2007	2008
	(In millions of U.S. dollars)				
			/a	/b	
Total Merchandise Imports (fob)	113.7	101.6	101.0	176.0	258.4
Consumer goods	30.5	26.5	na	na	73.6
Cereals	8.2	4.7	na	na	25.5
Other food products	9.7	9.6	na	na	20.3
Beverages, alcohol, tobacco	3.9	3.7	na	na	9.4
Clothing, apparel, textile products	1.6	1.8	na	na	3.0
Pharmaceuticals	2.7	2.6	na	na	8.1
Furniture & related products	1.2	1.3	na	na	2.8
Other consumer goods	3.2	2.9	na	na	4.5
Raw materials & manufactures	49.5	53.5	na	na	99.9
Petroleum products	36.5	35.1	na	na	72.3
Wood and paper products	1.8	3.2	na	na	3.6
Textiles and fibres	0.1	0.1	na	na	0.1
Construction materials	5.4	7.7	na	na	12.5
Other raw materials & manufactures	5.7	7.4	na	na	11.3
Capital goods	33.3	21.6	na	na	85.0
Electrical machinery	9.8	5.5	na	na	17.6
Transport equipment	16.2	7.6	na	na	45.7
Other equipment	7.3	8.5	na	na	21.7
	Panel II: Composition Timor-Leste's Imports (% shares)				
Consumer goods	26.81	26.11	na	na	28.48
Raw materials & manufactures	43.55	52.63	na	na	38.64
Capital goods	29.30	21.26	na	na	32.88
Total imports (rounded)	100.0	100.0	na	na	100.0

Sources: The Timor-Leste authorities; IMF 2009, Table 5, 29.

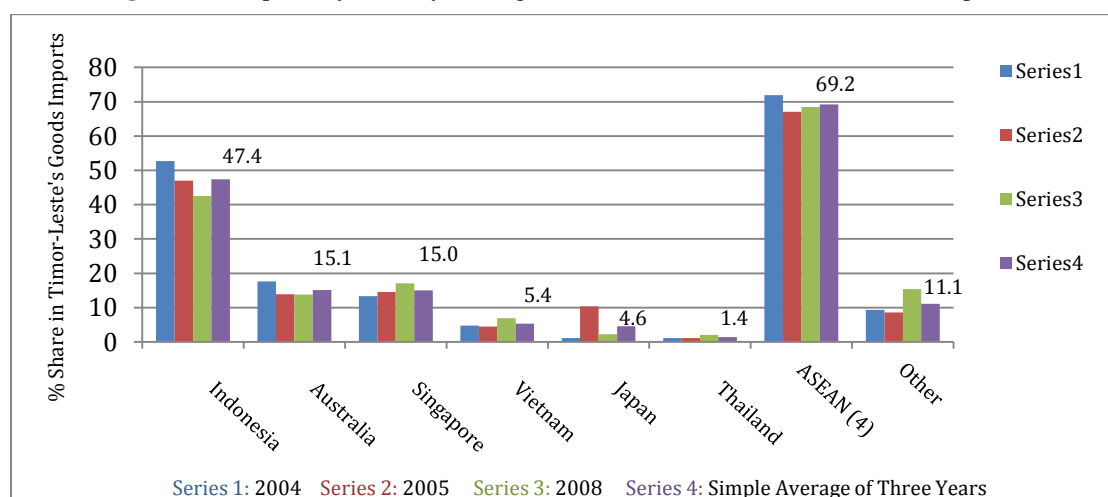
/a /b: Trade data for June-July 2006, February-March 2007, and August-December 2007 have not been recorded. It is not known to what extent figures for these months of the relevant years have been included in the subsequent months. Estimates of imports for 2006 and 2007 are taken from the IMF's 2009 Article IV Staff Report.

²⁴ A portion of budgetary capital spending is partly financed by the transfers from the PF to the budget.

17. **During 2004-2008, continued reconstruction of physical infrastructure, buildings, roads, and bridges led to significant imports of construction materials and other raw materials and manufactures, including petroleum products (Table 3.5).** All of these accounted for 37 to 53 percent of Timor-Leste’s total merchandise imports. Capital goods (transport equipment, electrical machinery, and other equipment) averaged for about 28 percent of imports while consumer goods accounted for about 27 percent of total merchandise imports.

18. **Not surprisingly, given the volume of reconstruction activities and the presence of the UN in various capacities, the level of Timor-Leste’s services import has remained relatively large.** Increasing from \$234 million in 2004 to \$468 million in 2008. Imports of services stayed at levels well in excess of merchandise imports in current US dollars terms during 2004-2008 (Table 3.3). This trend is unlikely to continue as imports of reconstruction material and of advisory support services decrease.

Figure 3.2: Imports by Country of Origin (in % Shares of Total Merchandise Imports)



19. **Proximity and traditional trade ties have made Indonesia the principal source of Timor-Leste’s imports (Figure 3.2 and Statistical Appendix 2).** Indonesia’s share in Timor-Leste’s total merchandise imports averaged over 47 percent in recent years.²⁵ Australia and Singapore are the next important sources for Timor-Leste’s imports. Four larger members of the ASEAN—Indonesia, Singapore, Thailand, and Vietnam—account for more than two-thirds of Timor-Leste’s imports²⁶ (see Statistical Appendix 2).

20. **There are several data issues with the reliability of Timor-Leste’s recorded trade figures.** First, until the full adoption of the internationally used ‘Harmonized System’ (HS) of trade data classification and coding in 2004, trade data collection and recording was not systematic,²⁷ using a classification system that did not conform with internationally used trade coding system. Recording of the data on actual trade flows and tabulation were also incomplete. It is widely acknowledged that until 2004 recorded import figures underestimated actual imports by a significant margin due to underreporting. Also, informal/illegal imports of food items and beverages through the land-based border with Indonesia and through Timor-Leste’s exclave Oecussi²⁸ were taking place. Aside from the traditional trade patterns with Indonesia, the incentives created by subsidized Indonesian rice and other food items and Timor-Leste’s import taxes (including high excises on beverages) must have led

²⁵ Over three years —2004, 2005, and 2008— for which data were available.

²⁶ Out of a total of ten members

²⁷ IBM 26-27.

²⁸ Oecussi, which lacks an effective customs, is in the northern coast of West Timor, which is an Indonesian territory.

to considerable amounts of smuggled food imports²⁹ in the first half of the last decade. But with the introduction of a sizable rice subsidy by the GOTL in 2008, the direction of informal rice trade through the land-border with Indonesia might have changed.

21. **These problems with the official trade statistics do not appear to have ended with the introduction, in 2003, of the widely used UNCTAD program of recording merchandise trade, referred to as ‘Automated System for Customs Data’ (ASYCUDA).**³⁰ For example, in 2006, trade data for June and July were not entered in the ASYCUDA. Again, in 2007, merchandise trade data for February and March and August through December were not entered.³¹ This is due to a major fire in the customs service, which destroyed records and infrastructure. Chapter 10 on ‘Transport and Trade Facilitation’ below assesses the issues faced at Timor-Leste’s customs both in the clearance of imports and in data entry/processing and makes recommendations on addressing these.

Timor-Leste’s Integration into the Global Economy: A Cross-Country Comparison

22. **As elaborated above, Timor-Leste’s trade integration is heavily skewed to the import side, and there is very limited trade integration on the export side.** If we abstract from the reconstruction-related imports, which do not necessarily reflect the economy’s underlying long-term structural trends in external trade activities, and leave aside the oil and gas sector, Timor-Leste is not deeply integrated with global markets. This is as expected since Timor-Leste is in the very early stages of her economic development. Consequently, the economy is not yet well integrated into the international markets, especially on the export side.

23. **Despite the disadvantages of not being able to benefit from scale economies, small island economies could achieve strong trade integration and growth performance.** Such favorable economic performance would be stimulated by sustained improvements in the key dimensions of the investment environment, including in political stability; sound macroeconomic management; enabling commercial laws and regulations; protection of private property; availability of skilled labor, infrastructure services, and credit; and an effective law and order situation.

24. *Fiji, Mauritius, and Seychelles* provide examples of good economic performance stimulated by the establishment of a competitive investment environment. These countries have achieved strong trade integration and considerable growth in per capita incomes. They have attracted relatively large amounts of foreign direct investment (FDI), which have in turn contributed to enhanced export growth and diversification. In the case of *the Maldives*, a fairly liberal expatriate labor policy to fill the serious skills gap,³² leasing of some islands for tourism within the framework of a phased program of resort development, increased access to bank credit, and borrowing from the international tour operators by the local/joint venture investors in the tourism sector have contributed to the growth of the country’s tourism sector and steadily rising tourism revenues. Also, opening of the previously restricted fishing and fish processing activities to the private sector has improved the efficiency of the fisheries sector, which remains a strategically important source of employment, income, and foreign exchange earnings as well as a critical source of protein.

²⁹ A. Jenks, M. Leigh and P.M. Wijkman, *A Future Trade Policy for Timor-Leste: A Pre-study*, (Commissioned by SIDA, 2003) 29.

³⁰ With the adoption of the HS of customs coding in 2003, ASYCUDA ++ has been in full use since 2004. This also explains why the period 2004-2008 is selected in the tables presented earlier.

³¹ As noted earlier, in the tables presented above, the IMF’s BOP figures were used for the latter years.

³² That is ‘mode four’ type of supply of labor services by expatriate professionals and skilled workers; (under *mode four*, independent services providers temporarily move to the host country to provide their services).

25. Tables 3.6 and 3.7 summarize the recent developments in trade and investment integration of several small island economies and also provide information about levels of per capita income — without claiming any direct causality.³³ Successful reformers among these countries have diversified their economies and expanded their exports of goods and services. Their trade openness (here measured in terms of goods and services trade expressed as a percent of GDP) was in the range of 81 to 163 percent. Timor-Leste's trade openness remained around 46-53 percent of non-oil GDP. The contrast is much sharper when only exports of goods and services are considered: 15-17 percent of non-oil GDP for Timor-Leste compared to a range of 62-131 percent of GDP for the other cited countries. Strong export performance of some of the small island economies highlight the existence of potential scope for improving Timor-Leste's export performance over time if the most critical structural constraints to private activity are addressed and the needed economic policy and institutional reforms are implemented.

Table 3.6: Trade Openness of Selected Countries, 2004-2008

Country	2004	2005	2006	2007	2008
	Merchandise Exports as % of GDP				
Timor-Leste /a	2.5	2.4	2.8	1.8	2.5
	Exports of Merchandise and Services (% of GDP)				
Timor-Leste /a	17.7	13.6	13.1	17.6	14.8
Fiji	54.0	56.0	na	na	na
Maldives	92.0	64.6	83.7	80.8	77.1
Marshall Islands	23.9	25.5	22.9	23.3	24.0
Mauritius	55.0	57.0	60.0	62.0	62.0
Micronesia Fed.Sts.	15.7	15.9	15.6	na	na
Papua New Guinea	72.0	73.0	82.0	90.0	90.0
Samoa	21.0	23.2	25.5	na	na
Seychelles	98.0	81.0	89.0	109.0	131.0
Solomon Islands	31.0	34.0	36.0	43.0	39.0
Vanuatu	49.0	48.0	44.0	42.0	46.0
	Total Merchandise Trade (X+M) as % of GDP				
Timor-Leste /a	39.3	33.0	33.6	46.0	54.3
Fiji	78.0	78.0	79.0	76.0	91.0
Maldives	106.0	121.0	126.0	126.0	137.0
Marshall Islands	79.0	87.0	78.0	78.0	76.0
Mauritius	79.0	84.0	93.0	90.0	81.0
Micronesia Fed.Sts.	79.0	87.0	78.0	78.0	76.0
Papua New Guinea	108.0	102.0	115.0	123.0	113.0
Samoa	45.0	46.0	51.0	45.0	49.0
Seychelles	113.0	115.0	118.0	134.0	163.0
Solomon Islands	58.0	70.0	74.0	86.0	78.0
Vanuatu	50.0	51.0	48.0	46.0	52.0

Sources: The Timor-Leste authorities; IMF 2009, Table 5, 29; *Small States Database*, Commonwealth Secretariat/World Bank <www.worldbank.org/smallstates/>; IMF (Article IV Staff Reports).

/a: For Timor-Leste, openness ratios are calculated relative to non-oil GDP.

26. **Even in the near-term, Timor-Leste could expand and diversify its agricultural exports.** There is broad agreement on this assessment in Timor-Leste, and this was repeatedly stressed during direct interactions with private sector representatives, government officials, and staff of development partners working on various agricultural projects under implementation. This DTIS is using a product-specific approach — an integrated VCA — to identify some of the most critical constraints to productivity growth in Timor-Leste's agricultural sector and formulate specific action programs to address these bottlenecks.

³³ The data are from the *Small States Database* database and from the IMF. Not all indicators are available for all the included countries.

Table 3.7: Cross-Country Comparison- Various Economic Indicators, 2004-2008

Country	2004	2005	2006	2007	2008
Agricultural Land (% of land area)					
Timor-Leste ('08 popul. 1.1 mil.)	23.0	23.0	na	na	na
Fiji ('08 popu.: 0.8 mil.)	25.0	25.0	na	na	na
Maldives ('08 popu.: 0.3 mil.)	47.0	47.0	na	na	na
Marshall Islands ('08 popu.: 0.06 mil.)	78.0	78.0	na	na	na
Mauritius ('08 popu.: 1.3 mil.)	56.0	56.0	na	na	na
Micronesia ('08 popu.: 0.11 mil.)	44.0	44.0	na	na	na
Papua New Guinea ('08 popu.: 6.45 mil.)	2.0	2.0	na	na	na
Samoa ('08 popu.: 0.18 mil.)	33.0	33.0	na	na	na
Seychelles ('08 popu.: 0.09 mil.)	13.0	13.0	na	na	na
Solomon Islands ('08 popu.: 0.51 mil.)	3.0	3.0	na	na	na
Vanuatu ('08 popu.: 0.23 mil.)	12.0	12.0	na	na	na
GNI per capita, Atlas method (current US\$)					
Timor-Leste	500	740	960	1,520	2,460
(Timor-Leste: per capita non-oil GDP) /1	332	347	331	390	474
Fiji	3,030	3,560	3,670	3,690	3,930
Maldives	2,580	2,580	2,980	3,220	3,630
Marshall Islands	3,100	3,170	3,140	3,190	3,270
Mauritius	4,670	5,250	5,460	5,610	6,400
Micronesia Fed.Sts.	2,280	2,330	2,300	2,280	2,340
Papua New Guinea	570	690	730	850	1,010
Samoa	1,960	2,240	2,460	2,750	2,780
Seychelles	8,240	9,680	10,740	11,060	10,290
Solomon Islands	860	900	950	1,050	1,180
Vanuatu	1,380	1,590	1,780	1,970	2,330
FDI, net inflows (BOP, mill.current US\$)					
Timor-Leste	na	na	8.5	8.7	37.8
Fiji	187.1	160.0	373.7	268.9	na
Maldives	14.7	9.5	13.9	15.0	15.4
Marshall Islands	4.1	6.5	6.2	12.2 /est	5.5 /proj
Mauritius	11.2	41.6	105.3	339.0	na
Micronesia Fed.Sts.	na	na	na	na	na
Papua New Guinea	55.4	33.6	-6.9	95.8	na
Samoa	2.3	-3.0	20.7	2.5	na
Seychelles	38.0	85.9	145.8	249.3	na
Solomon Islands	6.0	18.6	18.6	42.4	na
Vanuatu	19.8	13.2	43.4	34.2	na

Sources: The Timor-Leste authorities; IMF 2009, Table 5, 29; *Small States Database*, Commonwealth Secretariat/World Bank <www.worldbank.org/smallstates/>; IMF (Article IV Staff Reports).

/1: 3% population growth was assumed.

B. TRADE POLICY REGIME

Import and Export Policies

27. **Timor-Leste's trade policy regime is not a constraint to export growth and diversification.** Following the July 2008 reductions (by 50 percent) in customs duties and the sales tax levied on imports, Timor-Leste has one of the most liberal trade policy regimes in the world (Table 3.8);³⁴ (see Annex 3.1 for the changes in Timor-Leste's customs duties and in other levies on imports since June 2000). A very low and uniform customs duty rate is a key positive feature of Timor-Leste's import policy regime. The sales tax is currently not collected on sales of domestically produced goods. This makes it a protective tax, and thus it also violates WTO rules on 'national treatment' in taxation.³⁵ The two taxes together (2.5 percent each) add an additional cost of 5.1 percent to the landed value of imports,³⁶ resulting in a fairly low nominal protection level. Compared to the prevailing import tariffs in some of the ASEAN members on intra-ASEAN trade and on imports from third countries, Timor-Leste's nominal protection rates are considerably lower. There are no quantitative barriers to trade and no taxes on coffee exports.³⁷ As in most other countries, there

³⁴ GOTL, *Decree Law 8/2008* (2008).

³⁵ GATT, Article III. It needs to be pointed out however that there is no domestic production of many manufactured products in Timor-Leste.

³⁶ The 'landed cost' of imports refer to c.i.f. value of imports, which include the cost of imports at the source plus insurance and freight.

³⁷ A 'presumptive income tax' was levied on f.o.b. ('free on board') value of coffee exports— at 5 percent— until the end of May, 2001; source: IMF 2003, Table 19, 45.

- Not raising the cost of imported capital goods, construction material, and consumption goods, thus fostering investment in machinery/equipment, physical infrastructure, housing and other construction, and by making low cost imported food products available for the poor;
- making domestic markets more competitive, thus promoting technical and allocative efficiency in input use by the existing and new firms and, thereby, boosting productivity and export competitiveness;
- minimizing the anti-export bias of the trade policy and thus encouraging export growth and export diversification; and
- reducing incentives for misclassification of imports, corruption, and smuggling and easing the administrative burden of customs clearances.

29. **Given Timor-Leste’s current trade policy regime, there are several areas where policy actions (and policy discipline) to support export competitiveness may be warranted.** As discussed in Chapter 2, maintaining a competitive REER⁴⁰ is crucial, *ceteris paribus*, for not undermining export competitiveness and for promoting export diversification. *Sustained appreciation of REER could offset the positive impacts of the structural drivers of export competitiveness.* Finally, preparations for the introduction of a ‘generalized sales tax’ (with plans to an eventual move to a value-added tax (VAT) subject to capacity) would provide the needed revenue cushion to offset the revenue losses that would result from further reduction of import tariffs associated with the targeted accession to the ASEAN and joining the ASEAN Free Trade Area (AFTA). The rate of the (uniform) generalized sales tax or uniform VAT can be set in a manner that would help offset the cited revenue losses or generate even larger tax revenues, taking account of the level of transfers from the petroleum fund. *However, not to undermine their competitiveness, exports should be zero-rated.*⁴¹

C. INSTITUTIONAL ASPECTS OF TRADE POLICY

Trade-Related Policymaking and Coordination

30. **As noted earlier, the GOTL has substantially reduced import duties, thus removing virtually all ‘border barriers’ to trade on the policy side. However, on the domestic front, there are a host of areas where GOTL policies impact trade performance and enhanced coordination is required.** Policy coordination is needed to establish a coherent policy framework that strengthens export competitiveness and trade’s positive impact on growth and employment generation. Timor-Leste’s institutional structure for the formulation of consistent trade-related policies is still in the early stages of development. *Limited institutional capacity and a general lack of background in trade policy analysis should be addressed as part of capacity development efforts.* Occasional reorganizations in the government structure⁴² are taking place partly to improve coordination in

1979. For a detailed discussion on this topic and references to other papers on the subject, see: David G. Tarr, “Arguments for and Against Uniform Tariffs,” *Development, Trade, and the WTO: A Handbook*, Eds. B. Hoekman, A. Mattoo and P. English (World Bank, 2002) 526-534.

⁴¹ The introduction of a duty/tax rebate program is a standard policy implemented in most countries to enable producer/exporters duty-tax free access to inputs in order not to undermine their export competitiveness. This is a measure that the Government may want to consider when the tax system is further developed and tax revenues as share of non-oil GDP increases. In the meantime, since the existing tariff rate and other indirect taxes are fairly low, the adverse impact on the competitiveness of exports is likely to be small. Furthermore, the implementation of a duty/tax rebate system at this time may strain the Government’s already stretched institutional capacity.

⁴² The GOTL has 12 ministries and 13 Secretaries of State. The Prime Minister is the Head of the Government and also chairs the Council of Ministers. The ministries are responsible for the formulation of policies and drafting of laws in their portfolio areas. These area/sector-specific policies and laws are then approved by the Council of Ministers; the legal advice

economic policymaking. The government's declared objective of membership in ASEAN point to *the need for stronger efforts to strengthen the capacity of civil servants in the relevant ministries in trade policy formulation and in negotiation techniques and also for continued advisory services.*

31. **Timor Sea Office.** In the oil and gas sector, which is a major source of foreign exchange revenue for the country (and for the budget), the *Timor Sea Office* is attached to the *Prime Minister's Office*. The unit has been advising the Prime Minister on the oil and gas sector, particularly on the negotiation strategy pertaining to the Greater Sunrise oil and gas field in the Timor Sea.

32. **Ministry of Tourism, Commerce, and Industry (MTCI).** The MTCI leads on trade policy,⁴³ and it is also responsible for the formulation, implementation, coordination, and evaluation of the policies approved by the Council of Ministers in the areas of industrial development and promotion of tourism.

33. **Ministry of Economy and Development (MED).** Legal mandates of the MED include the "design, execution, and assessment of policies, approved by the *Council of Ministers*, for the development of microfinance schemes and cooperatives and for the protection of the environment." Before it was restructured, the MED was instrumental in the preparation of the draft *External Investment Law* (i.e. FDI) and the *Domestic Investment Law*, which were promulgated in June 2005. The two sets of associated regulations were also published as decrees in late June 2005.⁴⁴ More recently, the MED has worked on a new (unified) investment law, in consultation with other line ministries, with a view to ensuring similar treatment of FDI and domestic investment and introducing enhanced investment incentives (see Section D below on 'Trade and Foreign Direct Investment').

34. **Ministry of Agriculture, Forestry, and Fisheries (MAFF).** MAFF is responsible for strategically important sectors of the economy, which offer significant scope for export growth and diversification in the near-term. At present, the coffee and forestry subsectors are under the jurisdiction of the Vice Minister, and the Secretary of State is responsible for the fisheries subsector. There are established policies pertaining to the key activities that are included in the MAFF's portfolio, but there are also major gaps in the policy framework and capacity. The MAFF's Directorate of Quarantine is the authority⁴⁵ responsible for carrying out quarantine services and control of food products of plant and animal origin, in line with the requirements of the WTO's SPS agreements (see Chapter 6).

35. With respect to the fisheries sector, *Decree Law 6/2004 (of April 2004)*, which establishes the general legal and institutional framework⁴⁶ for fisheries and aquaculture activities, states that a 'competent authority' be established within the Directorate of Quarantine Services. Such an entity has not yet been established due to the lack of financial resources and capacity constraints, and no progress has been made towards developing a '*fisheries resources management regime*.' The hitherto untapped fisheries sector could become an important source of export earnings, employment, and protein. However, an appropriate policy environment and the institutional capacity (including a marine resources research unit) need to be developed in accordance with the conditions of the country. Perhaps a '*rights-based*' regime taking account of the '*historical rights*' of the local fishing communities could be developed, with '*territorial use rights*' being granted to the local fishing

on the draft laws is provided by the Ministry of Justice. For a detailed coverage on the government structure and the portfolios of various ministries in Timor-Leste, refer to: www.timor-leste.gov.tl and IBM 52 -57.

⁴³ In broad terms, the MTCI's mandate is defined as: "The Ministry of Tourism, Trade and Industry is the Government's main body responsible for the design, execution, coordination and assessment of the policies defined and approved by the Council of Ministers for the areas of tourism and economic, commercial and industrial activities"; see: www.timor-leste.gov.tl.

⁴⁴ Further details on these two investment laws that were promulgated in June 2005 are available in: World Bank, *Timor-Leste: The Business Regulatory Environment* (World Bank, 2006) 10-11.

⁴⁵ Under the 'Joint Ministerial Instruction' dated December 13, 2002. For details, see: IBM 56.

⁴⁶ Referred to as 'General Bases of the Legal Regime For the Management and Regulation of Fisheries and Aquaculture.' For details, see: IBM 56.

cooperatives. Of course, an enforceable and realistic ‘monitoring, control, and surveillance’ mechanism will be needed to support sustainable fishing and to control licensed foreign fishing vessels in Timor-Leste’s exclusive economic zone (EEZ). Finally, to develop export potential in the fisheries sector, stringent SPS standards and the capacity to implement these standards would be needed. In view of the potential importance of the fisheries sector and the complexities of the policy, legislative, and resource management issues involved, a separate study on the sector appears warranted.

36. **Ministry of Foreign Affairs and Cooperation (MFAC).** In the MFAC, the National Directorate for International Cooperation and Regional Integration is responsible for carrying out negotiations to join regional and global trading arrangements.⁴⁷ The GOTL prioritized ASEAN membership as a key step in strengthening Timor-Leste’s regional trade integration. To this end, an ASEAN Secretariat has been established in Dili to coordinate the government’s preparations for ASEAN accession, focusing on the formulation of Timor-Leste’s strategy for the membership process around the ASEAN Community’s three pillars: (i) ASEAN Political-Security Community (APSC); (ii) ASEAN Economic Community (AEC); and (iii) ASEAN Socio-Cultural Community (ASCC). Notwithstanding the human and financial costs of membership, being part of ASEAN could lead to net economic benefits in the medium-term if Timor-Leste succeeds in boosting export competitiveness. Furthermore, membership in ASEAN will help lock-in the significant liberalization effects in Timor-Leste’s import policy regime and shield the government from future pressures for protection. It is also worth highlighting that given Timor-Leste’s very low nominal import protection rates, the economy should not face adverse ‘trade diversion’ effects from ASEAN membership (see Section E below).

37. **There is scope to improve coordination in formulating trade-related policies, especially in those areas that impact the quality of business environment, agricultural productivity, untargeted subsidies that distort market incentives, and inflows of FDI.** Effective policy coordination will help avoid conflicting policy initiatives. This requires the establishment of economically sound principles to guide policymaking on trade. This would require, for example, closer interaction among the key ministries, including MTCI, MED, MAFF, and Ministry of Finance (MoF). Just to give an example, the existing consumption subsidy on imported rice adversely impacts the effectiveness of extension services and investment in irrigation infrastructure aimed at boosting agricultural yields. It also increases budgetary imbalances. Instead of using distortionary and costly food price subsidies, food support programs targeting the poor would be a preferable policy in times of upward shocks in international food prices. Developing SPS capacity is another policy area requiring enhanced coordination. The effectiveness of interventions aimed at increasing productivity of potential agricultural exports is undermined when there is limited attention given to the development of much needed SPS capacity. Closer coordination is also warranted between the MTCI and Ministry of Justice (MoJ) to improve business start-up (discussed in detail in Chapter 9). The IF National Steering Committee (NSC) appears to be a suitable forum, under the leadership of Prime Minister, to strengthen coordination among the ministries that make policies affecting trade. The NSC could be turned into a permanent policy coordination body in the government.

D. TRADE AND FOREIGN DIRECT INVESTMENT

38. **The GOTL introduced the country’s first FDI law (Law No. 5/2005) and its regulations (Decree No. 6/2005) in 2005.**⁴⁸ FDI brings with it positive spillover effects through technology diffusion, modern production processes, links to international marketing networks, and modern management skills. Recognizing the critical importance of the positive synergies for Timor-Leste’s

⁴⁷ GOTL, *Organic Law of the MFAC: Decree no.1/2003 of July 2003* (2003).

⁴⁸ A separate ‘Domestic Investment Law’ was also promulgated in June 2005, followed by its regulations. The two laws have similar provisions. The key difference between them relate to the levels of incentives that they provide for domestic investment vs. FDI and also in the amounts of minimum investments required to benefit from these incentives.

economic development, the law provides for incentives—in the form of tax holidays and exemptions from import duties on imports of capital goods and raw materials to be used in new investments—to compensate for wide-ranging business environment constraints. There are also no TRIMS (‘trade-related investment measures’) such as ‘domestic content’ requirements imposed on FDI inflows (or on joint ventures with domestic investment).⁴⁹

39. **To promote FDI and exports, in 2005, the government created a ‘foreign investment and export promotion’ agency, designated as TradeInvest Timor-Leste (TITL) under Decree 7/2005 (dated July 27, 2005).** Article 3 of the decree stated that the duty of TITL is “*to promote, coordinate, facilitate, register, and follow-up on foreign investment and exports, as well as centralize the necessary administrative procedures for authorizing and registering foreign investments within the framework of laws, incentives and benefits provided in the Foreign Investment Law.*” Article 4 also guaranteed funds for TITL from the government’s regular budget with a view to sustaining TITL’s operations. To promote and support domestic investment, the Instituto Apoio ao Desenvolvimento Empresarial (IADE)⁵⁰ was also established in 2005. Both TITL and IADE were to operate as ‘one-stop-shops’ to foster private investment.

40. But shortcomings in three critical areas have hindered TITL’s effectiveness as a foreign ‘investment promotion agency’ (IPA) and in export promotion:

- *Low institutional status:* during 2005-2007, TITL reported directly to the Prime Minister, which helped elevate its legal status, gave it a sense of independence, and credibility. But in 2007, the government changed TITL’s reporting status and brought it under the jurisdiction of the MED. This has lowered the organizational status of TITL, thus hindering the agency’s ability to affect investment policy and help investors.
- *Lack of an investment promotion strategy:* TITL has operated without an ‘investment promotion strategy’ that is linked to the country’s economic development objectives and FDI goals. Without a strategy, a business plan, a vision, and performance targets, the TITL has lacked focus and has primarily been involved in issuing foreign investment certificates. It has not been able to do much in the way of promoting FDI and exports.
- *Limited capacity:* TITL’s low institutional capacity has constrained its ability to respond to investor inquiries in a timely manner, prepare basic information about the investment environment and about specific sectors, and provide updated information on a user-friendly web-site.

41. With a view to eliminating differential treatment of domestic and foreign private investment and bringing transparency in the processing of investment applications, the government has drafted a new *Private Investment Law*, which was recently approved by the Council of Ministers and has been sent to Parliament. In addition, a Decree Law on the statutes for *Investe Timor-Leste*, the new IPA to replace TITL; regulations/procedures related to *Investe Timor-Leste*; and a Decree Law on the new statutes for IADE have also been prepared and will be submitted to the Council of Ministers after the Parliament approves the new investment law.⁵¹

42. Unlike TITL, *Investe Timor-Leste* will provide a one-stop-shop service to *both* foreign and domestic investors. Also, instead of retaining TITL’s organizational structure, *Investe Timor-Leste* will have a more streamlined structure with one Executive Director and a ‘Comissao de Avaliacao do Investimento Privado’ (Investment Review Committee). The committee will have permanent and non-permanent members at the national director/chief administrator level from the relevant ministries.

⁴⁹ TRIMS that discriminate against imported inputs/products, say because of the domestic content requirements, are not in compliance with the *TRIMS Agreement* included in the GATT 1994 (details can be accessed at www.wto.org).

⁵⁰ Enterprise Development Institute.

⁵¹ Decree Laws and regulations do not need to be submitted to Parliament.

The Chamber of Commerce might also be represented in this committee. However, Investe Timor-Leste will also continue to report to the MED, which may constrain the agency's effectiveness.

Table 3.9: Estimated Values of FDI Licenses Issued in Timor-Leste

	2006	2007	2008	2009
Sector/Activities:	Planned/Intended FDI (in \$ million)			
Hotel services	44.8	12.9	0.0	45.3
Coffee	13.1	0.0	0.0	0.0
Fishing & Industrial fishing	27.4	5.2	0.0	14.0
Construction	3.7	3.4	0.0	9.7
Real Estate & PropertyDev.	1.0	9.0	10.8	0.0
Agro-Business (exclu. coffee)	10.4	0.0	0.2	0.0
Plantation-Cane Sugar	0.0	0.0	100.0	0.0
Wholesale-Retail-Import Trade	2.5	1.3	0.0	0.0
Construction material	1.2	0.0	0.0	1.4
Transportation	0.0	0.2	4.0	0.0
Commercial Banking	5.6	0.0	0.0	0.0
Others	50.5	12.3	3.4	15.1
Totals	160.2	44.3	118.4	85.5

Source: GOTL, TradeInvest Timor-Leste, MED

43. **Reliable data on FDI flows are not readily available.** According to TITL, the total value of FDI certificates issued to private investors between 2006 and 2009 was around (in current US dollars) \$408 million (Table 3.9). These indicate a concentration of '*intended*' investment in *construction* (not surprising given the sizable amount of government contracts in the construction sector), *tourism* (e.g. hotels in Dili), *transportation*, *property development*, *wholesale/retail trade*, and *agriculture/agribusiness* (including coffee). Official data, however, show that *actual* FDI outside of the oil and gas sector remains low. The latest BOP statistics from Timor-Leste's Banking and Payments Authority (BPA) give estimates of FDI to be around \$38 million in 2008 (approximately 7.6 percent of non-oil GDP) compared to \$8.7 million in 2007 and \$8.5 million in 2006. Over 90 percent of FDI in 2008 constitutes one investment project in the oil and gas sector.⁵²

44. **Attracting increased levels of FDI to Timor-Leste will require significant progress in addressing the key cross-cutting constraints to productivity growth and export competitiveness, including improvements in Timor-Leste's fairly challenging business environment.** These aspects are analyzed in detail in Chapters 7 through 9 covering skills gap, land, and business environment issues. In this section, it suffices to emphasize that an important step to promote FDI would be to enact the unified *Investment Law* soon and to transform the new IPA into an effective entity. Also, to improve the reliability of data on actual levels of FDI, it is recommended that *Investe Timor-Leste* speed up the establishment of the planned system to monitor foreign investment inflows.

E. STRENGTHENING REGIONAL AND GLOBAL TRADE INTEGRATION

ASEAN Economic Integration

45. **Soon after becoming Prime Minister in 2006, now H.E. President Dr. José Ramos-Horta committed the government to the goal of Timor-Leste becoming a member of the ASEAN by 2012.** H.E. Deputy Prime Minister Dr. Jose Luis Guterres signed the Treaty of Amity and Cooperation on behalf of Timor-Leste in his former capacity as the Minister of Foreign Affairs and Cooperation on January 2007 at the 12th ASEAN Summit in Cebu, Philippines. This was the first step

⁵² In order to estimate the level of FDI inflows as input for the BOPs, the BPA is collecting information directly from the three commercial banks; several construction, oil, and gas companies; petroleum products distribution companies; one coffee processing and export company; and a telecommunication company. Therefore, it is likely that the BOP data underestimate the actual size of FDI since not all the key companies with at least some FDI are covered. For example, there is foreign direct investment in hotels in Dili, but these do not appear to be included in the BPA's coverage.

towards becoming a full-fledged member of the regional grouping.⁵³ The government has decided to join ASEAN, and the focus going forward is on identifying the steps needed for Timor-Leste to fulfill all the membership obligations.

46. **ASEAN aims to promote regional integration and create an area that is politically and militarily secure, delivers equitable and widespread economic benefits, and is respectful of people and seeks to help them realize their full potential.** The Association is built and operates on consensus. It expects each country to be respectful of the boundaries, laws, and culture of another. Resolution to conflicts and disagreements are handled using peaceful mediation efforts. ASEAN is currently comprised of 10 Southeast Asian countries: Brunei Darussalam, Cambodia, Indonesia, Lao, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam. Timor-Leste is the only Southeast Asian nation not in ASEAN (for a detailed background on ASEAN see Annex 3.2).

47. **Timor-Leste has already begun integrating into the region.** Over 70 percent of its merchandise imports come from ASEAN countries while 27.8 percent of its exports go to the ASEAN region. Cooperation with the ASEAN Member Countries (AMC) has also increased over the years. For example, Thailand created a G-to-G initiative for the supply of rice, and in 2006, Malaysia sent military troops to help restore stability.

48. **For Timor-Leste, ASEAN membership appears as a logical next step towards developing greater regional and international economic integration.** Overall benefits from ASEAN for Timor-Leste include access to an influential regional grouping; enhanced linkages with Southeast Asia beyond Indonesia; commercial connections to several strong, outward-looking economies; and opportunities for technology and skills transfers from more developed members.⁵⁴ According to a 2007 assessment for the Timor-Leste Accession to ASEAN Dialogue Series, the “potential economic benefits to be gained by Timor-Leste would largely flow from the dynamic effect of trade liberalization that means increased competition, economies of scale, and spill-over effects of FDI— especially in terms of technological and management skill transfers.”⁵⁵ With the 2008 tariff cuts discussed earlier, Timor-Leste has already taken an important step in getting ready for the AFTA.

49. More specifically, potential economic benefits include locking in and accelerating Timor-Leste’s developing trade and economic policy regime; enhancing trade capacity through the potential of supplying intermediate inputs to ASEAN regional industries; receiving additional financial and technical assistance; and negotiating future trade agreements as part of a block rather than as a small individual country, among others.⁵⁶ *Equally important is the potential for ASEAN to serve as a stepping stone towards WTO membership.*

50. **The extent to which these benefits are realized will depend on the internal reform agenda of the GOTL.** As noted at the ASEAN Dialogue Series, integration benefits are not automatic, and the amount of benefits enjoyed by individual member countries largely depends on the reforms they undertake and the success of their structural reform and integration efforts.⁵⁷ The President has noted that accession to ASEAN is a “whole of government, whole of Timor-Leste” project since it requires efforts from government agencies, donors, civil society, the private sector, and most importantly the public at large because membership will impact the lives of all Timorese.

51. **For Timor-Leste to become a member of ASEAN all 10 member countries would have to vote favorably.** The countries will be looking at Timor-Leste’s human capacity to fulfill the

⁵³ London School of Economics and Oxford Investment Research, *An Investment in the Future: ASEAN Preparedness Strategy for Timor-Leste* (London: Oxford Investment Research, 2007).

⁵⁴ Antonio Franco, “The Potential Economic Benefits for Benefits for Timor-Leste of Joining ASEAN,” *Timor-Leste Accession to ASEAN Dialogue Series, Timor-Leste, Dili Feb 19-20, 2007* (Feb 2007).

⁵⁵ London School of Economics.

⁵⁶ IBM 46-47; Antonio Franco.

⁵⁷ London School of Economics.

obligations of membership. Furthermore, a number of steps are required to join the AEC, which is one of three communities that exist within the ASEAN family. The other two communities are the APSC and ASCC. AMC were given six years to fulfill the requirements under each blueprint beginning in 2009 and ending in 2015. Assuming that Timor-Leste would be given the same amount of time to fulfill these requirements once it joins ASEAN, this suggests that the approximate ASEAN accession date should correspond to the date required to fulfill AEC membership requirements less six years.⁵⁸

52. **In order to ensure timely fulfillment of AEC membership requirements, it is recommended that Timor-Leste undertake an assessment of the needs required to meet each section of the AEC Blueprint.** Annex 3.3 provides an overview of the needs Timor-Leste would have to address to implement the AEC Blueprint. It does so in a broad fashion by focusing mostly on policy, legal, and compliance requirements. A thorough examination of these needs will be required, including assessments of the timeframe, resources, and actions to address each requirement. Through this exercise an approximate date can be calculated as to when Timor-Leste can fulfill the AEC membership requirements.

Accession to the WTO

53. **WTO membership entails several important benefits:**

- It encourages the acceleration of domestic economic policy reforms and the reform of institutions involved in goods and services trade. Such improvements are required before accession into the WTO. These structural reforms boost productivity growth and enhance export competitiveness and diversification.
- It sets the stage for locking in economic policy reforms that have already been undertaken.
- It provides for security of ‘*market access*’ to major export markets on a non-discriminatory basis (i.e. on a MFN basis).⁵⁹
- It allows access to the WTO’s impartial and binding dispute settlement mechanism for trade issues, including, for example, protection from unfair trade practices, protection of trade access rights, transit rights, and intellectual property rights.

54. In addition, there are flexibilities *for LDCs during the WTO accession negotiations*,⁶⁰ including:

- extended time for fulfilling all the commitments made during the accession negotiations;
- programs aimed at supporting the establishment of SPS and technical standards capacities and improving national telecommunications;
- legal assistance for dispute settlement cases; and
- TA programs to: support the development of the institutions needed in a global trading system (such as customs administration, trade policymaking units); and facilitate training courses, seminars, and workshops on topics related to negotiation skills pertaining to accession to the WTO, implementation of the WTO commitments made during the

⁵⁸ Timor-Leste will also have to meet the requirements of the APSC and ASCC Blueprints. However, the fulfillment of requirements in the AEC Blueprint is expected to take the most time and effort, which explains why the approximate ASEAN accession date is estimated based on the fulfillment of the AEC Blueprint rather than the other two blueprints.

⁵⁹ This involves non-discrimination among trade partners and between locally produced and foreign goods.

⁶⁰ For details on the WTO accession process (negotiation phases and topics, and strategies for applicants) and for information on the accession experiences of some LDCs, visit: www.wto.org and search for ‘*accession process*.’ Also, see: Constantine Michalopoulos “WTO Accession,” *Development, Trade, and the WTO: A Handbook*, Eds. B. Hoekman, A. Mattoo and P. English (World Bank, 2002) 61-70

accession negotiations, the WTO's dispute settlement, and effective participation in multilateral negotiations.

55. **The critical question with respect to Timor-Leste's WTO accession is a 'timing' issue.** Since ASEAN membership is now the government's top trade policy priority, Timor-Leste might prefer to initiate the WTO accession process in the future. However, Timor-Leste will benefit from implementing ASEAN membership requirements given that some of these are also WTO requirements. For example, ASEAN members are committed to implementing WTO customs rules and customs valuation guidelines and national treatment in taxation and private investment.

56. **Accession to the ASEAN could also serve as a stepping stone towards WTO membership.** To benefit from greater market access opportunities of the ASEAN, Timor-Leste will have to accelerate some of the critical capacity building efforts that will contribute export performance. To begin with, Timor-Leste will have to develop her SPS capacity in order to continue exporting agricultural products and livestock to Indonesia. The planned land reforms, along with improvements in transport infrastructure and the critical areas of the business environment will have to be accelerated to encourage investment in agriculture, attract more FDI, and boost productivity growth. Fulfilling the AEC Blueprint will likely make an important contribution to WTO membership requirements. However, it would be desirable to assess 'if and when' Timor-Leste should pursue WTO accession. Such a study would help the government make an informed decision on WTO accession.

Pacific Island Forum (PIF)

57. **Sixteen members of the PIF⁶¹ agreed in 2001 on a framework to strengthen their economic relations under the *Pacific Agreement on Closer Economic Relations (PACER)*.** Within this framework, the PIF countries also signed the Pacific Island Countries Trade Agreement (PICTA) in 2001, with a view to establishing a free trade area by 2011. The PICTA is not expected to lead to a significant expansion in intra-PIF trade, but it could lead to benefits in terms of more FDI and cooperation in trade logistics as well as serve as a stepping stone to WTO accession. Non-Forum countries can become a member of the PICTA. Thus, Timor-Leste could join the PICTA, but this is not likely to lead to trade expansion since there is significant degree of substitutability between their potential exports. One of the important agencies of the PIF is the Forum Fisheries Agency (FFA), which assists the Forum countries in the management of their tuna fisheries as well as their EEZs. Since nonmembers of the PIF could become a member of the FFA, Timor-Leste could seek TA from the FFA for the development of a tuna fisheries management regime.

58. **Since gaining membership in the ASEAN is a priority for Timor-Leste, it is prudent for Timor-Leste to maintain an informal relationship with the PIF while the ASEAN's position on this matter is sought.** Nevertheless, membership in the PIF could offer some potential benefits to Timor-Leste. For example, Timor-Leste could benefit from the experiences of the small island states in the PIF in several areas, including public administration and WTO accession process.⁶²

EU Relations: The Cotonou Agreement and 'Everything But Arms'

59. **The EBA program governs Timor-Leste's trade relationship with the EU, and Timor-Leste's broader economic and social development relationship with the EU comes under the Cotonou Agreement.** The EU's EBA program provides for tariff-free and quota-free market access

⁶¹ For a background on the PIF, which was established in 1971, see: IBM 47-48; and Jenks 73-75. The 16 members include: Australia, Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Nauru, New Zealand, Niue, Palau, Papua New Guinea, Republic of the Marshall Islands, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu.

⁶² Small island states Fiji, Solomon Islands, and Papua New Guinea are already members of the WTO. Samoa and Vanuatu are in the accession process. Especially, Vanuatu's experience to date could provide useful lessons to Timor-Leste when the country decides to apply for WTO membership in the future.

to exports of LDCs while the Cotonou Agreement is a ‘partnership agreement’ between the African, Caribbean, and Pacific Group of States (ACP) and the European Community (EC). The Cotonou Agreement, which was signed in 2000, is the successor of the four successive Lomé Conventions. Timor-Leste became a member of the ACP (and, thus, became a signatory of the Cotonou Agreement) in March 2003 and ratified the Cotonou agreement in 2005.⁶³

60. **A key objective of the Cotonou Agreement is to support the ACP group of countries in their effort to strengthen their capacity to better integrate in the global economy and to foster regional trade integration as well.** Under the Cotonou Agreement, economic policy and institutional reforms in the ACP group of states are supported by the European Development Fund (EDF) and also by loans from the European Investment Bank (EIB). The Cotonou Agreement had included trade preferences for the ACP countries, but these were discontinued in 2008 and replaced with the EU’s WTO-compatible ‘Economic Partnership Agreements’ (EPAs).

61. **The GOTL currently has observer status in EPA negotiations.** However, Timor-Leste will continue to benefit from the trade preferences granted to LDCs under the EBA program. One of the objectives of the Cotonou Agreement is to foster ‘regional trade integration,’ and as a signatory of this agreement, Timor-Leste might be expected to join the PICTA. The GOTL may need to manage this expectation within the context of the country’s first priority which is to join the ASEAN.

62. **Since the EBA provides preferential market access on the trade side, the principal benefit of the Cotonou Agreement for Timor-Leste is development assistance—in the form of financial and technical support.** The 10th EDF, worth € 22.7 billion, covers the period 2008-2013. These funds are used to support trade-related assistance programs, including in the areas of institutional capacity strengthening, development of SPS and technical standards capacity, and negotiation assistance. Such programs will help enhance Timor-Leste’s export competitiveness and diversification in the medium and long-term. *Under the 10th EDF, Timor-Leste has been allocated €81 million to three focal sectors—sustainable rural development, health, and institutional capacity building—and to non-focal sectors (‘support for non-state actors’ and a technical cooperation facility).*⁶⁴ These resources could play an important role in addressing some of the priorities highlighted in the DTIS for raising agricultural productivity.

F. CONCLUSION AND RECOMMENDATIONS

63. **In summary, the trade policy regime is not a constraint to export growth and diversification and to strengthening Timor-Leste’s integration in the world economy.** With a uniform 2.5 percent ad valorem import tariff rate, today Timor-Leste has one of the most liberal trade policy regimes in the world. And there are no quantitative barriers to trade and no taxes on coffee exports. However, this is a relatively new policy area where capacity strengthening and policy coordination is warranted. Above all, improvements in coordination are required in those areas that impact the quality of business environment, in general, and export competitiveness and inflows of FDI, in particular.

64. **Attracting increased inflows of FDI will also be critical for boosting economic growth and export diversification.** While the GOTL has made some strides in introducing the country’s first FDI law and drafting a new investment law, progress is also needed in addressing the key cross-cutting constraints to productivity growth and export competitiveness, including improvements in the Timor-Leste’s business environment.

⁶³ For further details on relations between the ACP countries and the EC and on the Cotonou Agreement, visit web-site: www.europa.eu.int and search for the ‘Cotonou Agreement.’ And for the Timor-Leste and the EU relations see: IBM 49-51; Jenks 76-80.

⁶⁴ GOTL/EU, *Joint Annual Report 2007: Report of the National Authorizing Officer and the Delegation of the European Commission* (2007) 16.

65. **In terms of strengthening regional and global trade integration, the GOTL has already decided that the first priority in the near-term is ASEAN membership.** As a result, the objective is first to strengthen regional trade integration with the ASEAN countries, which are Timor-Leste's major trading partners. The critical question with respect to Timor-Leste's WTO accession is a 'timing' issue, and WTO accession is considered by GOTL as an initiative for the medium to long-term. While PIF membership can offer some potential benefits to Timor-Leste, ASEAN's position on this matter needs to be sought. Finally, under the Cotonou Agreement, there is potential for Timor-Leste to seek financial and technical assistance from the 10th EDF program to focus on improving agricultural productivity.

66. **Recommendations related to the trade, trade policy regime and export competitiveness include:**

- (a) Maintain a competitive REER which is crucial for sustaining export competitiveness and promoting export diversification. Given that the US dollar is the official currency of the country, on the domestic front pursuing prudent fiscal policy becomes critical in order to avoid upward pressures on the prices of nontradables. This would help avoid appreciation of the REER.
- (b) Start preparations for the introduction of a 'generalized sales tax,' with plans to an eventual move to a VAT subject to institutional capacity.
- (c) Conduct a tourism study to analyze the country's prospects for developing a viable tourism sector, perhaps with a focus on niche tourism in the medium-term and a more diversified tourism activity in the long-term. Such a study also needs to cover the critical features of an enabling and environmentally responsible legal and regulatory environment for the sector's development.

67. **Recommendations related to the institutional aspects of trade policymaking include:**

- (a) Institutionalize the formulation of trade-related policies by establishing economically sound principles to guide policymaking. The IF *National Steering Committee*, chaired by the Prime Minister, provides a suitable forum to strengthen coordination among the ministries that make policies affecting trade. One option to consider is to transform the NSC into a permanent policy coordination body in the government.
- (b) Strengthening institutional capacity in trade policy analysis and negotiation techniques. Lack of background in economic policy analysis and in trade policy issues among the civil servants constitutes a major hindrance to formulating consistent trade-related policies and to effective trade negotiations. There is a need for training civil servants in trade policy in the relevant ministries. To this end, the government should seek funding⁶⁵ to develop and implement TA/training projects for civil servants and also for support for long-term advisory services. Highly talented civil servants could be selected to attend specialized trade courses offered by internationally recognized institutions.

68. **Recommendations related to trade and FDI include:**

- (a) Enact the new, unified draft *Investment Law* to remove uncertainty and eliminate the differential treatment of domestic and FDI.
- (b) Strengthen the institutional status of Investe Timor-Leste by having the agency report directly to the Prime Minister. This change will elevate the institutional status of the new IPA and enable it to function more effectively.

⁶⁵ See the 'List of Trade Related Projects' for the earlier TA/training projects supported by UNCTAD/German Government, Irish Aid, and EC to help improve the trade policy and trade negotiation capacity of civil servants.

- (c) Develop an investment promotion strategy, business plan, vision, and performance targets to guide Investe Timor-Leste and build the capacity of Investe Timor-Leste's staff to respond to investor inquiries, along with prepare and disseminate both general investment and sector-specific information.
- (d) Improve the reliability of data on actual levels of FDI by having Investe Timor-Leste speed up the implementation of the planned system to monitor foreign investment inflows. To this end, the BPA and Investe Timor-Leste could and should cooperate in gathering reliable data on actual FDI inflows.

69. **Recommendations related to regional and global trade integration include:**

- (a) Undertake an assessment of the needs required for Timor-Leste to fulfill the AEC membership requirements. This assessment should include a thorough examination of the timeframe, resources, and actions required to meet the needs under each section of the AEC Blueprint.
- (b) Conduct a study to assess 'if and when' Timor-Leste should pursue WTO accession. Such a study would help the government make an informed decision on WTO accession.

**SECTION II:
VALUE CHAIN ANALYSIS OF AGRICULTURAL EXPORTABLES
AND KEY SECTORAL CONSTRAINTS TO COMPETITIVENESS**

CHAPTER 4: VALUE CHAIN ANALYSIS OF AGRICULTURAL EXPORTABLES

A. AGRICULTURE'S STRATEGIC ROLE

1. **In Timor-Leste, agriculture is a strategically important sector where near-term opportunities for export growth and diversification intersect most clearly with opportunities for poverty alleviation.** Measures to enhance productivity, reduce costs, and boost marketable surplus production in subsectors where Timor-Leste has the greatest non-oil export potential can have a major positive impact on employment, poverty, and social and political cohesion. Light manufacturing may have potential, though its capacity to generate employment (and therefore alleviate poverty) is more limited in the near and medium-term due to skills shortages and poor transport links. Likewise the development of competitive tourism and fishery sectors will also take time.

The Agriculture Sector: An Overview

2. **The majority of the Timorese population relies on agriculture, which provides employment for 80 percent of the active population and generates more than 90 percent of non-oil exports (in value terms).** Although Timor-Leste's topographic features pose challenges for agriculture, the sector does account for about 30 percent of non-oil GDP. Vulnerability to adverse weather events (such as erratic rainfalls and cyclonic winds), low public and private investment, widespread reliance on traditional technology, and impediments arising from past agrarian structures continue to constrain this important sector. However, with appropriate policies and support programs, agriculture could have a greater impact on living standards and economic development.

3. **Progress has been made in establishing the sector's legal, regulatory and institutional framework.** The biggest challenge faced by the MAFF is its limited capacity: in terms of delivery of services to its rural constituents, financial resources, infrastructure, qualified human resources, and the enforcement of laws and regulations. The MAFF is aware of these challenges and efforts have commenced to strengthen its capacity to coordinate programs and deliver services.

4. **During 2002-2007,⁶⁶ agricultural GDP grew by 2.1 percent.** This was driven mainly by an expansion of the commercial sector which grew from 22.3 percent to 27.3 percent of total agricultural GDP⁶⁷ due mainly to *increased coffee exports and a growing livestock population*. However, the food subsector, which accounts for about three quarters of the agricultural sector's GDP, contracted at an annual average rate of 2.6 percent over the same period.⁶⁸ Since Timor-Leste's rural economy is almost completely dominated by agriculture, slow growth in the sector explains the slow development of non-farm activities in rural areas. Agricultural growth has to accelerate and reach a higher and more stable level if the employment opportunities and living conditions in rural areas are to improve.

5. **Agricultural productivity in Timor-Leste is very low.** For example, in 2007, (for the main food crops) Cambodia, which is a reasonable comparison country with Timor-Leste, reported crop yields (Mt/ha) of 3.45, 20.83, 4.76, and 2.36 for maize, cassava, sweet potato, and paddy rice, respectively. The corresponding yields (Mt/ha) reported for Timor-Leste in 2007 were only 1.00, 4.14, 3.71, and 1.31, respectively.

⁶⁶ Over the 2003-2007 period, annual average growth rate of the agricultural sector was lower; (comparable non-oil GDP figure for 2002 was not available).

⁶⁷ IMF 2008.

⁶⁸ IMF data are confirmed by FAOSAT figures which indicate no significant increases in food production since 2000; between 2000 and 2006 total per annum food crop production in Timor-Leste varied from 209,000 Mt to 243,000 Mt—and averaged 230,000 Mt—but then declined to 199,000 Mt in 2007. More recently, MAFF reported increased foodcrop production in 2009, but Timor-Leste's food production and demand figures are very unreliable.

6. When Timor-Leste's crop yields are compared with other countries' average crop yields on a percentage basis, the differential becomes even more apparent — across all crops Timor-Leste only produces, on an average basis, between 20 percent to 35 percent of the production (Mt/ha) achieved by Cambodia, Thailand, China, Vietnam, Indonesia, and Laos PDR. In the case of green coffee beans, Timor-Leste's productivity short-fall is even greater. *These indicate that there is substantial scope for increasing agricultural productivity in Timor-Leste through gradual modernization of production techniques.* The next section looks at how these issues link to gender and poverty considerations, particularly for selected subsectors with high export potential.

Table 4.1: Timor-Leste: Cross-Country Comparison of Crop Yields (Mt/ha), 2007

Crop	Production per Ha (Mt/ha) (2007)							Avg (Exc TL)	TL (% of Avg)
	Cambodia	Thailand	China	Vietnam	Indonesia	Lao PDR	Timor-Leste		
Maize	3.45	3.84	5.41	3.75	2.59	3.91	1	3.99	25%
Cassava	20.83	22.92	16.25	15.89	16.25	10.59	4.14	17.07	24%
Sweet Potato	4.76	0	21.47	4.87	10.56	9.23	3.71	10.18	36%
Paddy Rice	2.36	2.69	6.34	4.87	4.69	3.5	1.31	4.08	32%
Coffee (Green Bean)	0.82	0.87	1.5	2.14	0.51	0.65	0.22	1.07	21%

Agriculture and Gender Issues⁶⁹

7. **The participation of women in trade-related activities is not only socially desirable but also critical in maximizing the positive impacts from trade expansion for both men and women.**⁷⁰ Women are particularly active in the agriculture sector which includes 80 percent of economically active females.⁷¹ The agricultural sector provides employment and income to over 70 percent of rural women, and women are engaged in nearly all activities associated with the cultivation of staple foods,⁷² including planting, weeding, harvesting, transporting, storing, and marketing for a variety of crops.⁷³ However, a significant proportion of both men and women are involved primarily in subsistence farming and fishing. Women account for 43.5 percent of subsistence agricultural workers.⁷⁴ Much of women's work in the agriculture sector is unpaid as it is considered to be a part of their household obligations. The government estimates that 70 percent of women working in agriculture do not receive cash income. In the non-agriculture sector, unpaid female work represents 46 percent of their contribution.⁷⁵

8. **Women experience a double time burden in terms of economic and social obligations, and their economic contributions are frequently undervalued or unrecognized.** Women carry a heavier burden than men in terms of household activities, such as fetching water, cooking, cleaning, washing, and taking care of children and the elderly. As a result, women work on average six hours more than men per week.⁷⁶ This constrains women's mobility and also results in less time for income-generating activities and participation in trainings and agricultural assistance opportunities. An International Labor Organization (ILO) assessment found that women are given permission by their husbands to work in rural infrastructure initiatives only if temporary arrangements could be made to absorb their domestic responsibilities.⁷⁷

⁶⁹ See Annex 4.1 for further discussion on gender issues.

⁷⁰ Anh-Nga Tran-Nguyen and Americo Beviglia Zampetti, eds. *Trade and Gender, Opportunities and Challenges for Developing Countries* (UNCTAD, 2004).

⁷¹ *Census* (Direcção Nacional de Estatística, GOTL, 2004) Table 6.3.

⁷² *Seeds of Life, Social Economic Study- Cultivation Practices for Staple Foods: A study of Seeds of Life Farmers in Aileu, Bacau, Liquiçá, and Manufahi* (Dili: 2007).

⁷³ MED, "Agriculture," *State of the Nation Report 2008* (2008).

⁷⁴ *Census* Table 6.1.

⁷⁵ MED, "Gender Equality," *State of the Nation Report 2008* (2008).

⁷⁶ Sonali Hedditch and Clare Manuel, *Timor-Leste Gender and Investment Climate Reform Assessment* (Joint Publication of IFC and AusAID, Jan 2010).

⁷⁷ ILO, *Rural Infrastructure for Women's Economic Development in Timor-Leste: An Action Guide* (2009).

9. **A number of immediate actions can be taken to address gender issues, particularly in the agriculture sector.** For example, skills trainings and extension services can use female extension workers and trainers and be better designed to take into account women’s skills gaps and needs, household schedules, and mobility constraints. It is critical to develop *deliberate and systematic gender responsive interventions* to enhance the overall efficiency of the economy and maximize the positive impacts of trade for both sexes. Gender Focal Points now exist in each ministry, and MAFF has been particularly pro-active in drafting a Gender Policy in Agriculture Development. This needs to be complemented with more thorough gender analysis to understand the different needs, priorities, and modes of participation of women and how existing institutions and practices hamper female participation and productivity. We cannot assume that general improvements in these areas will necessarily translate into higher participation and productivity among both males and females.

Agriculture and Poverty

10. **This subsection briefly examines the engagement of poor and non poor Timorese households in selected subsectors with strong export potential including coffee, mungbeans and cattle** (see Section B below). The analysis is based on the 2007 Timor-Leste Survey of Living Standards (TLSLS) data. Examination is disaggregated by poor-non poor categories and when further illuminating, by quintiles of per capita household expenditure. The poor-non poor distinction is based on comparing 2007 per capita household daily total expenditure to the poverty line estimated at US\$.88 per day per person.⁷⁸

Figure 4.1: Proportion of Households Cultivating Some Land (%)

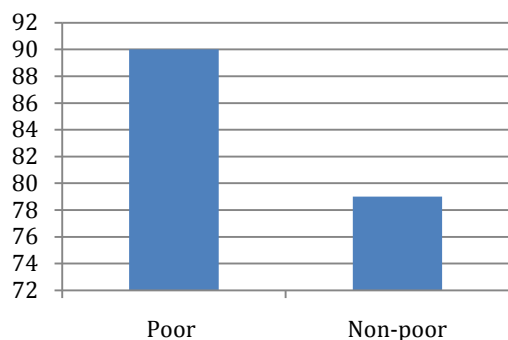
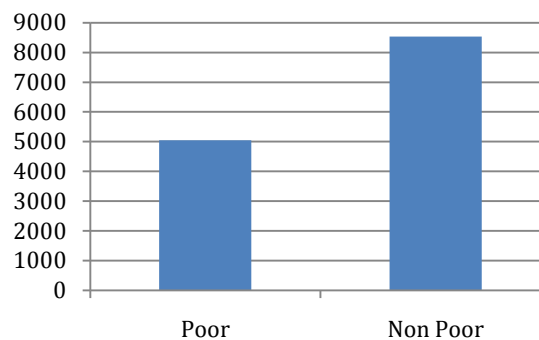


Figure 4.2: Average Cultivated Area Among Cultivator Households (m²)



11. As both coffee and mungbean production is conditional on access to land, it is logical to first examine access to land for different categories of households. On the whole, about 84 percent of the total sample of 4,477 households considered for analysis was found to be using some land for agricultural production. As Figure 4.1 indicates, a higher proportion of poor households (90 percent) use land compared to the non poor (79 percent). However, as is seen in Figure 4.2, the average size of land holdings is significantly larger for the non-poor (8539 m²) than for the poor (5048m²).

⁷⁸ GOTL and World Bank 2008

Figure 4.3: Proportion of Cultivator Households Growing Coffee

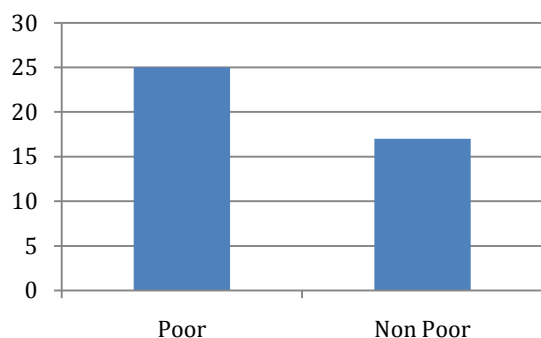
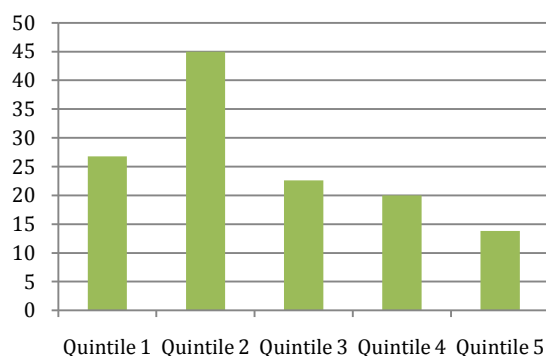
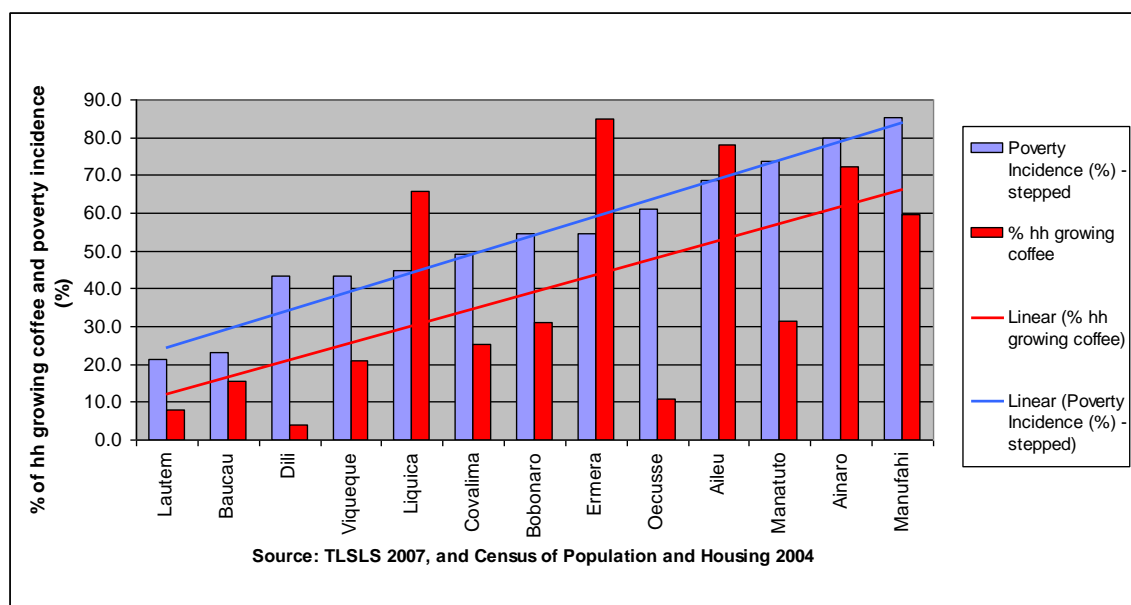


Figure 4.4: Proportion of Cultivator Households Growing Coffee



12. **For coffee production, Figure 4.3 shows that a bigger proportion of poor households grow coffee (25 percent) compared to non poor households (17 percent).** In fact, disaggregating by expenditure quintiles (1-lowest, 5-highest) reveals that the proportion of households growing coffee is the highest for the 2nd quintile and drops steadily after that (Figure 4.4). Figure 4.5 is another way of looking at the relationship between coffee production and rural poverty. It shows that the percentage of households growing coffee (in each district) is highest in poor districts and that the four main coffee growing districts (Ermera, Aileu, Ainaro and Manufahi) are all very poor.

Figure 4.5: Coffee Production and Rural Poverty



13. **Even though a greater portion of the poor households grow coffee, average production of coffee per household is higher for the non poor, most likely because of larger plantation areas.** Non poor households on an average harvested 699 kg of coffee (green bean) in the year prior to the survey compared to 378 kg harvest by poor households (Figure 4.6). The average amount of coffee sold is also higher for the non poor (610 kg) than for the poor (301 kg). In fact, the average quantity of coffee sold steadily increases up to the 4th quintile and then declines after that (Figure 4.7). There is also a substantial discrepancy between the amount of coffee harvested and sold. For the 2nd and 3rd quintiles, this discrepancy exceeds 100 kg per household on an average; for the other quintiles, this is slightly less than 50 kg. From a policy perspective, it is important to determine whether this is simply due to home consumption or to quality-related or other impediments in production reporting and marketing.

Figure 4.6: Average Quantity of Coffee Harvested (kg)

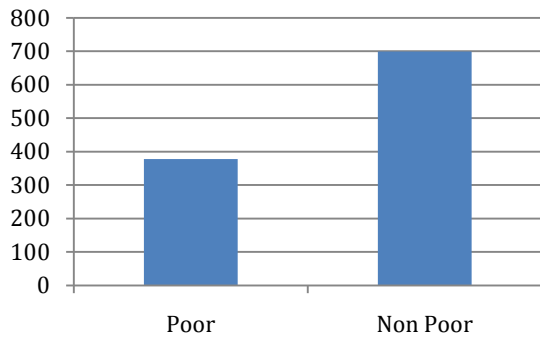
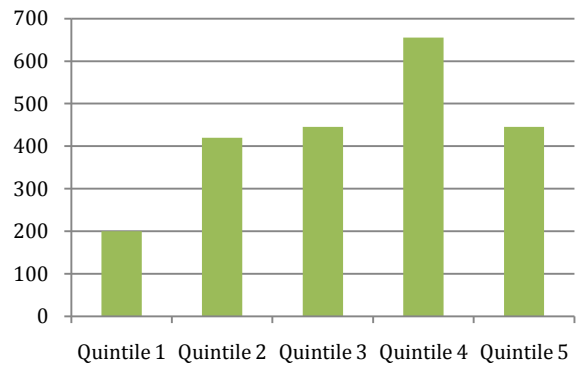
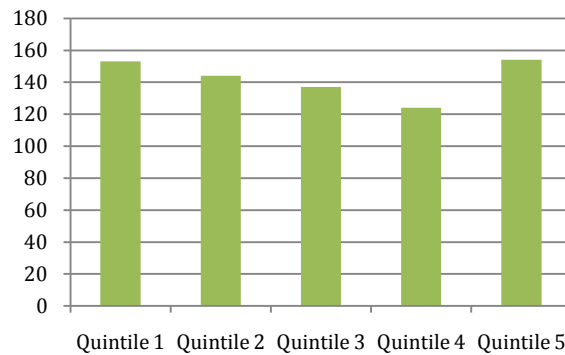


Figure 4.7: Average Quantity of Coffee sold (kg)



14. **The proportion of farming households growing mungbeans in Timor-Leste is less than 10 percent.** It also does not vary significantly across poor and non poor groups (7 and 8 percent respectively). Similarly, mean production per household (among growers) does not vary systematically across expenditure groups – though it is lower for the 3rd and the 4th quintiles (Figure 4.8).

Figure 4.8: Mean Production of Mungbeans per Household (kg)



15. **In the country as a whole, less than a third of households own any type of cattle.** Figure 4.9 indicates that the proportion of poor households owning cattle (29 percent) is not that much lower than for the non poor (33 percent). However, the average number of cattle owned (Figure 2.13), which is low for all households, is significantly lower for the poor (1.1) than for the non poor (2.01). In fact, as Figure 4.10 shows, cattle ownership declines steadily with average total household expenditures. This pattern persists even when ownership is examined in value terms. The mean value of cattle owned is \$227 for poor households compared to \$431 for non poor households, and the value declines from \$561 for the highest expenditure quintile to \$193 for the lowest quintile. In terms of animal husbandry, less than 5 percent of the households had their cattle vaccinated, and this rate was a little lower for the poor (3 percent) compared to the non poor (5 percent).

Figure 4.9: Proportion of Households Owning Cattle (%)

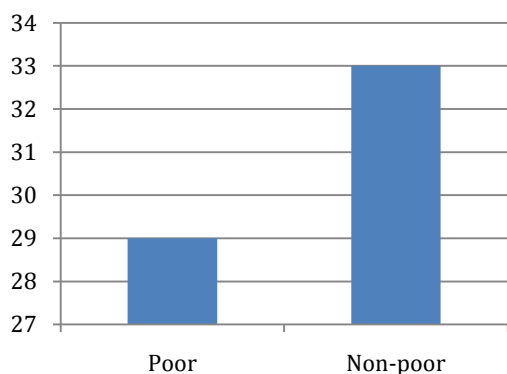
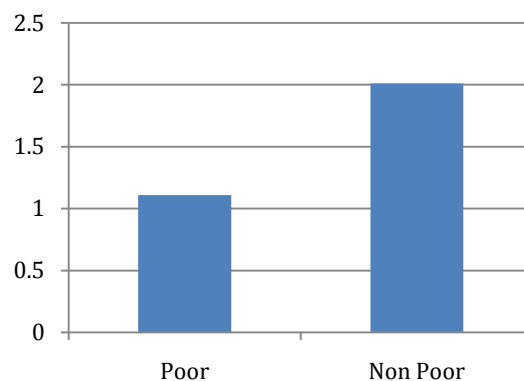


Figure 4.10: Average Number of Cattle Owned per Household



16. There is some trade in cattle though this is at a very low level. In the country as a whole, less than a fifth of households reported selling any cattle in the year of the survey. However, as Figure 4.12 shows, the proportion of non poor households that sold cattle (16 percent) was higher than that for the poor (13 percent). Finally, there is little difference in the number of cattle heads sold between the poor (0.27) and the non poor (0.26).

Figure 4.11: Average Number of Cattle Owned per Household

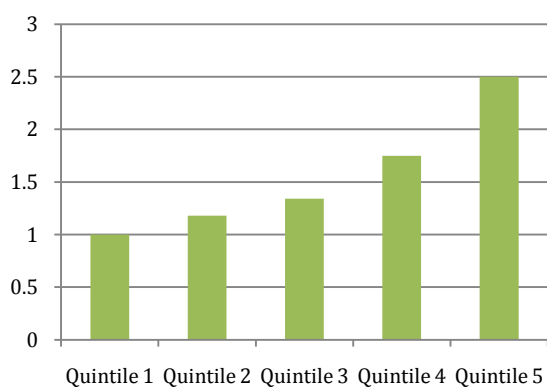
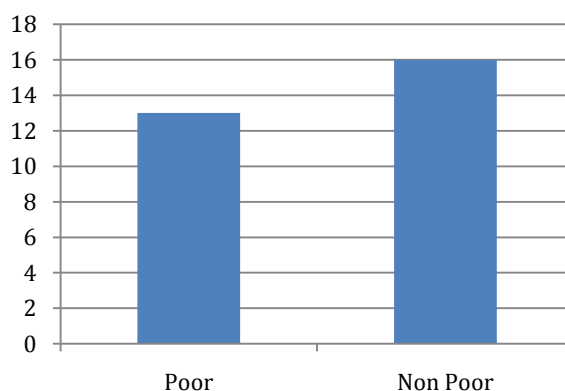


Figure 4.12: Proportion of Households that Sold at least One Head of Cattle



Subsector Potential and Relative Impact on Poverty and Export Earnings

17. **The potential of each subsector to contribute to increased export earnings and/or poverty reduction depends on a number of factors including:** (i) the number of households involved in each subsector; (ii) the existing production base (crop areas and livestock populations); (iii) existence of proven technologies to increase production and service providers to assist households with adopting those technologies; and (iv) existence of operational value chains and export markets.

18. In 2009, about 67,000 households grew coffee in Timor-Leste. The corresponding figures for mungbeans and cattle/buffalo were about 11,000 and 44,000 households, respectively. Given that coffee-growing households harvest about 0.8 hectare (ha) of plantation per household and mungbean-growing households grow about 0.25 ha of crop per household (as a second season crop when irrigation water is limited), it is apparent in terms of crop areas (and therefore production and poverty reduction potential) that coffee should be afforded priority over mungbeans. Increasing coffee production by four times from about 54,000 ha of coffee plantations could result in additional export earnings of about \$45 million per annum.

19. The small mungbean industry does not have the same potential to impact on poverty, rural incomes, and export earnings. But as discussed below, there is scope to expand exports and perhaps produce 4,000 Mt per annum, which valued at \$700/Mt could generate \$2.8 million. Similarly, even though there is potential to increase the export of live cattle from Timor-Leste to Indonesia, the size of the sector (somewhere between 164,000 and 80,000 head) means that (for a national herd size of say 120,000 head and a 10% annual turnoff) a maximum of 12,000 head at \$380/beast could generate \$4.5 million. The export potential and value chain of each product is looked at in more detail below. The broad conclusion though is that all three subsectors could contribute to increased rural incomes, and therefore poverty reduction, and that the greatest potential in this regard lies with coffee.

B. VALUE CHAINS FOR COFFEE, CATTLE, AND MUNGBEANS

20. **An analysis of the integrated value chain systems of three selected subsectors was carried out for this chapter.** GOTL, like others, use Value Chain Analysis (VCA) to help identify areas where policy actions could have a positive impact on agricultural productivity.⁷⁹ As proxies for similar activities in the sector, the selected subsectors cover a spectrum that might offer potential for export diversification and growth.⁸⁰ It is important to note that while a VCA can provide valuable input into the formulation of policy/institutional interventions, it is also increasingly difficult to obtain reliable data for certain commodities at each step in the chain. This is particularly true when moving up the chain and examining further processed, higher value products, many of which bear no resemblance to the original raw commodity. Value chain work for this DTIS relied on the findings of earlier studies/projects, information collected during interviews with the principal players in each related chain, and feedback from several focus group discussions.⁸¹

21. **During the field work, specific products with ‘best prospects’ for export development were initially selected, using a rapid ‘Strengths, Weaknesses, Opportunities, and Threats’ (SWOT) assessment** (see example for green mungbean in Annex 4.2). The criteria adopted in this DTIS for selecting specific subsectors included the existence of:

- Export market demand for surplus production and an identifiable market chain;
- A product value chain;
- A strong production base in the area, preferably existing surplus output (the case for coffee);
- Agro-ecological potential to increase productivity with or without significant inputs;
- Previous or ongoing production and marketing activities;

⁷⁹ GOTL, *The Strategic Framework for Rural Development in Timor-Leste (2010 – 2020)* (Dili: GOTL, Dec 2009): “A commodity-based approach with value-chain based interventions is one strategy for improving productivity of specific crops. Value chain mapping would *identify bottlenecks and constraints to be addressed and strengthen value chain* partnerships. The interventions would seek to improve all aspects along the value chain, from input supply, to production, to processing, storage, transport, trading and finally consumption. A commodity based approach would also enable the development of crop specific specialists for research and extension purposes and commodity based trading groups to transfer surpluses to districts with deficits. MAF could be instrumental in establishing the commodity based programs, extension packages and coordinating with development partners for input supply, information sharing, identifying target areas and monitoring impact.”

⁸⁰ Numerous studies and project reports identified various technical and non-technical issues specific to Timor-Leste’s unique economic, social, and political circumstances as key constraints to agricultural development.⁸⁰ Among these issues, three principal constraints were specifically emphasized: (i) traditional and social values common among hill tribe communities; (ii) prevalent apathy and passive community resistance with respect to participating in development efforts; and (iii) insufficient rural traders, lack of formal and informal credit, and limited rural resources and services, particularly after the exodus of Indonesian entrepreneurs at Independence, to stimulate agricultural sector growth.

⁸¹ It is important to emphasize that the value-chain analysis itself has its own limitations in identifying all the critical constraints to productivity growth and competitiveness, whether the focus of investigation is the agriculture sector and/or the manufacturing sector. Therefore, the findings of the VCA exercise in this DTIS are complemented by the findings established through field visits and interviews, as well as by the findings reported in earlier studies.

- An identifiable market niche, even when a market is hard to identify; and
- Relevant community's willingness to adopt new technologies/practices.

22. **Based on these criteria, government technical staff, exporters, regional traders, and international advisers have contributed ideas about potential product chain options.** Some candidate products were also identified based on the findings of earlier studies/projects. Specifically, *The West Timor Market Study*,⁸² conducted in mid-2006 and funded by the GTZ,⁸³ provided valuable information on Indonesian cross-border trade opportunities and issues. Among potential exports, the suggested product chains included:

- Some grains and pulses, including *mungbean* and *groundnuts*;
- coconut products;
- *soybean* for export to Indonesia;
- coffee;
- *cattle* production for live export to Indonesia;
- *timber* and forestry products, including *teak* and *candlenuts*; and
- other commodities characterized by niche market potential, including: (i) horticulture (fresh produce for domestic market and export); and (ii) cocoa and semi-processed bamboo.

23. **For the DTIS, three subsectors were selected with three specific (proxy) products representing them:** (i) coffee⁸⁴; (ii) grains and pulses (*mungbean* being the focus product); and (iii) livestock (*cattle* being the priority). Details on the rationale for selection are provided in Annex 4.3. In Chapter 5, the DTIS also looks at an additional subsector which may have future export potential—the horticulture subsector.

Coffee

24. **Coffee is Timor-Leste's leading non-oil export, with an estimated area of 52,000 ha of plantations, annually producing 6,000-12,000 Mt of green beans.** Eighty percent of the coffee is Arabica, with over 80 percent being exported. The year 2008 was an exceptional year with good rainfall and a bumper crop of 14,000 Mt compared with 10,500 Mt in 2007⁸⁵ and an estimated low of 8,000 Mt in 2009, reported to be a year 'of rest' for the trees. The main coffee-producing districts are Aileu, Ainaro, Bobonaro, Ermera, Liquiçá, and Manufahi, with Ermera accounting for half of the total crop. Cultivation of coffee has been a source of supplementary cash for about 67,000 families, representing approximately 30 percent of the population.⁸⁶ Of the 52,000 ha of plantations, it is estimated that half is cultivated by smallholders, and the other half is mostly abandoned, large-scale plantations previously owned and managed by 'planters' during the Portuguese time. The harvest from these larger plantations is picked by nearby farmers. Nationally, 29,000 hectares are estimated to have unproductive old trees, resulting in low national average yields of 150 -200 kg/ha of green coffee beans, with most growers cultivating less than one hectare.⁸⁷

⁸² Adam Sendall & NGO Timor Membangun, *West Timor Market Study* (GTZ, 2006).

⁸³ GTZ.

⁸⁴ The *rice* value chain was earlier analyzed by a MED/GTZ team, although conclusive results are yet to be made available. Moreover, with the Government's extensive interventions in rice marketing (through subsidies) severely distorting local production, rice milling, and market demand, the rice chain was not included in the DTIS.

⁸⁵ World Bank/MAFF Agribusiness Directorate, *Restructuring the Agricultural Service Centers to Achieve Timor-Leste's Development Goals* (2006).

⁸⁶ MAFF, *Coffee*.

⁸⁷ MAFF, *Coffee*.

25. **The value of Timor-Leste's annual coffee exports varies from year to year, depending on yields and international prices.** However, the industry is generally considered to be worth between \$10 million and \$15 million per annum in terms of foreign exchange earnings, with enormous potential to increase from this low base to perhaps annual export sales of about \$45 million. This potential, along with impact on poverty, places Timor-Leste's coffee industry at the top of the list of agricultural commodities which should be supported by GOTL.

26. **Generally, coffee farmers are paid a flat price for either cherry or parchment, and no incentive is paid to farmers for quality.** There are exceptions—for example, the recently introduced practices under the donor supported programs which assist smallholders in improving quality and negotiating with factories. The coffee produced for export is sold as green beans, and the value-adding roasting process takes place in importing countries, where it is then blended and packaged into a consumer product.

27. **Although Timor-Leste produces less than 0.2 percent of the global coffee supply, it has a competitive advantage in organic production.** Similar to other net export commodities, coffee generally reflects export parity prices and follows international price movements. In early years of the decade, prices dropped significantly, severely disrupting Timor-Leste's coffee industry at a time of a politically difficult and violent situation.⁸⁸

Chain Operators

28. **The structure of the coffee value chain is short and simple (see Figure 4.13).**⁸⁹ The major stages include: (i) farm production; (ii) generally negligible on-farm post-harvest handling; (iii) sale from farmer to local buyer/collector; (iv) processor and/or exporter; and (v) domestic retailer and consumption.

29. **Coffee producers are typically very poor upland subsistence farmers.** Other value chain stakeholders in the districts include rural collectors, truck drivers, or traders handling small volumes and often acting as agents for processors cum exporters. There are several groups of coffee buyers and exporters in Dili, including small development projects, NGOs, traders buying mainly parchment and exporting through Indonesia, as well as heavily invested companies exporting directly from Dili, such as:

- Timor Corporation Ltd (took over the Delta Café firm in 2006)—its 2009 exports of green bean amounted to about 4,700 Mt, mostly to Germany and a few other countries;
- CCT —2009 exports of green bean reached 1,500 Mt, mostly to U.S.A. and Europe;
- ELSAA Café Ltd — export of green bean in 2009 was about 450 Mt, mainly to Portugal; and
- Timor Global Ltd— with exports of 1,500 Mt green bean in 2009.

30. **These four companies account for 90 percent of coffee exports.**⁹⁰ CCT has been leading the way by improving the processing quality and being the first to obtain Organic and Fair Trade Certification, experiencing a premium difference in f.o.b. price of approximately \$0.10/kg green bean exported.

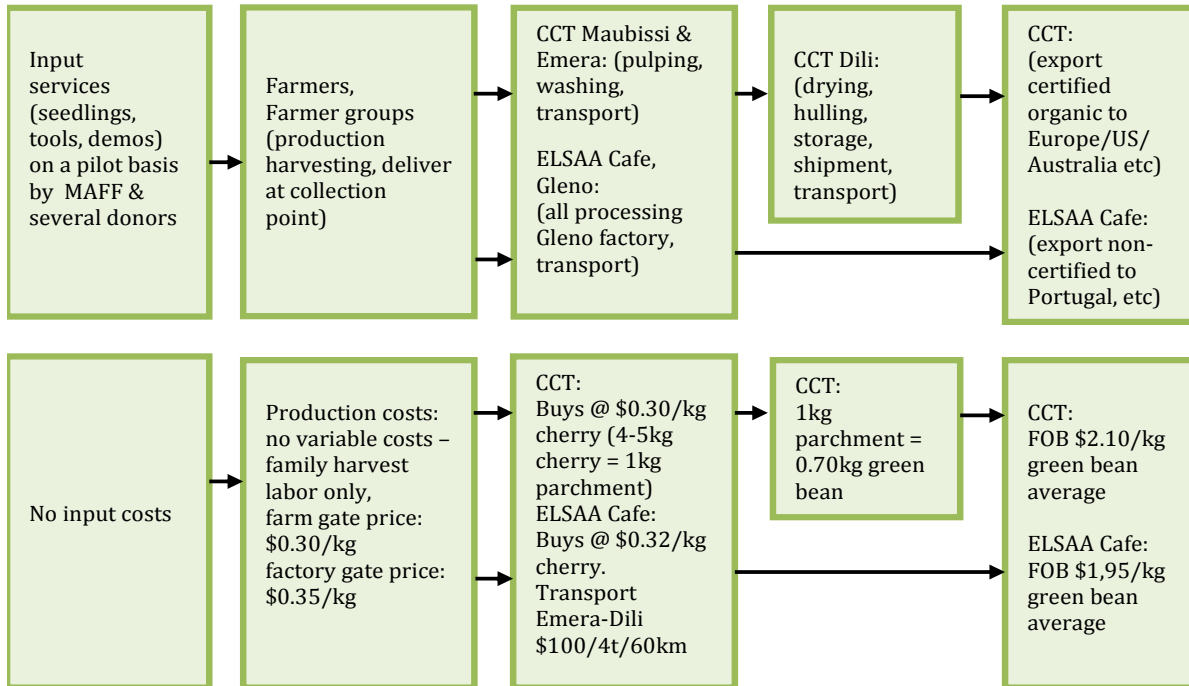
⁸⁸ Further details on Timor-Leste's coffee industry can be found in the MAFF's 2009 Commodity Profile Series and in the 2003 Oxfam report (C. Deutsch, *Overview of the Coffee Sector in Timor-Leste*, Oxfam, 2004), which provide background data and information for the VCA. The following is based on these earlier studies with updated findings from the October – November 2009 field work for the DTIS.

⁸⁹ Input services (seedlings, tools, demos on a pilot basis) provided by the MAFF and several donors, including: PARC (Pacific Asia Resource Centre); Peace Winds, Responsavel Centro Agro-Florestal e Tecnológico de Ermera; President's Office, Monaco Development Aid Program.

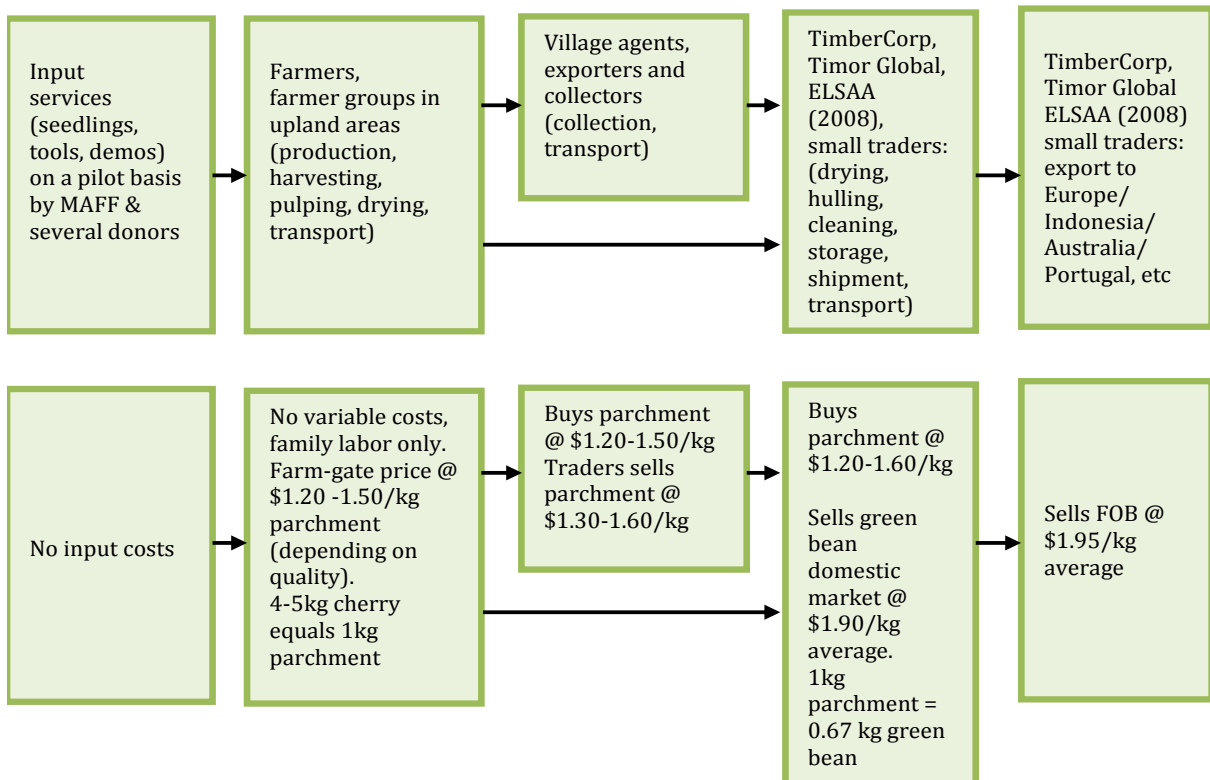
⁹⁰ A detailed description of buying, processing, and selling practices is available in: MAFF, *Coffee*.

Figure 4.13: Timor-Leste: Coffee Value Chain

Panel A: Farmers Selling Coffee Cherry (reportedly 50 percent of all coffee produced)



Panel B: Farmers Selling Parchment (reportedly 50 percent of all coffee produced)



31. **TA for the development of the coffee sector commenced in 1994 with the entry of the US National Cooperative Business Association (NCBA) backed by USAID funding.** Currently, the NCBA works through the umbrella organization CCT. The CCT incorporates coffee processing, marketing, and trade support as key components of the project. The essence of the marketing support involves strengthening village coffee grower groups to improve harvesting practices, achieve economies of scale in handling and transportation, and standardize quality and grades, thereby improving negotiating power in the international marketplace.

Box 4.1: ELSAA Café, Gleno sub-district, Ermera district

In 2009, ELSAA Café purchased coffee parchment and small volumes of cherries from surrounding growers. Their annual exports amount to approximately 500 Mt of green beans. About \$5 million worth of investment has been made in a new processing plant for both cherries and the handling of parchment, with an annual capacity of up to 5,000 Mt green bean, ten times more than the 2009 production. All processing will take place in Gleno, where the cooler climate allows for the storage of green bean, although there are plans for mechanical drying. Demand from the new plant will increase local demand for green beans, thus significantly intensifying competition with other buyers. Hence management is keen to participate in coffee rehabilitation schemes. They have, however, yet to devise a strategy and assess extension services to farmers. One farm incentive is higher prices—\$0.10/kg parchment for better quality produce, a practice also introduced by Timor Global Ltd. Currently, the MAFF and three TA programs are supporting coffee tree rehabilitation, with funding covered by donors for: (i) farm tools and seedlings; (ii) pulping machines for coffee grower groups; and (iii) wages, operational expenses and management of extension worker services. During discussion with field workers it was reported that the on-farm trials have proven feasible and can now be replicated on a wider scale, although it is recommended that it involve all four processing factories and provide seedlings for designated areas.

Coffee Value Chain Bottlenecks

32. **One of the key bottlenecks is the lack of extension service support from the private sector to farmers because of potential free rider problems.** There is little incentive for the private sector to provide extension advice to farmers because benefits can be captured by competitors. With stagnant coffee output and strong foreign import demand for organic coffee, the exporting companies compete aggressively to purchase cherries and parchment from farmers, resulting in favorable farm gate prices.⁹¹

33. **Only CCT provides some services to the member farmers since it is a ‘cooperative.’** However, other processors are assessing what types of services they could provide in the area of smallholder rehabilitation. The coffee processors reported that in the case of Arabica coffee parchment, which is the main crop, on average they achieve 66 percent exportable quality, with the remainder being lower grade and waste. This is a significant loss and much higher than, for example, the 20 percent lower grade and loss encountered in Indonesia. ELSAA Café reported that in their newly installed coffee processing facilities, all processing takes place in the Gleno sub-district and they intend to store green bean for a longer period in the cooler climate. This is unlike the other three processors who export finished green bean immediately following processing in Dili, where the humidity is high, thus impacting the quality and storage life.

34. **Aside from extension advice to farmers, processors reported high transport costs.** For example, from Same District to Dili, the in-season rent for a 4-ton truck is \$250 one-way since demand for transport is high during the May to August harvesting period. The transport cost recorded in a survey in 2006 was \$0.18 per kilometer-tonne for small volumes.⁹²

35. **The other major cost is weekly fuel consumption.** To operate the Timor Corporation hulling plant, the weekly fuel consumption amounts to 4,500 liters of diesel at a cost of \$0.90/lt, and this is low compared to 2008 when the price was up to \$1.45/lt. It is noted that Indonesia subsidizes

⁹¹ MAFF, *Coffee*.

⁹² AusAID/MAFF, *Outline – Integrated Rural Development Program Specific for East Timor, BARDEP (1998)*.

fuel (currently retailing at 0.55/lt), which may put Timor-Leste's coffee industry (and many other industries) at a disadvantage. This is not to suggest subsidies for fuel in Timor-Leste but to give an example of an external factor that puts Timor-Leste at a competitive disadvantage.

36. Based on the DTIS-related literature review and interviews with major stakeholders, several key constraints to enhancing productivity and export competitiveness of the coffee value chain were identified:⁹³

- Challenges to improving international cost competitiveness: relatively high local salaries, poor roads and infrastructure, high fuel costs, and limited access to processing facilities in remote areas;
- Inconsistency of quality compounded by poor understanding among producers of quality issues, general lack of price incentives for farmers for high quality coffee, and poor farm cultivation practices caused by the lack of effective extension services;
- Aged and neglected plantations, resulting in vulnerability to diseases (currently, shade trees are affected by a leaf fungus, potentially also coffee bushes) and low yield;
- Difficulties in reaching large numbers of small growers. Formation of farmers' organizations or grower groups could help strengthen bargaining power and improve the impact of extension services, post harvest practices, processing, and marketing;
- Growers' market access difficulties for increased production due to an insufficient number of local traders after Independence, when Indonesian traders departed;
- Lack of access to formal commercial credit for working capital needs of farmers wishing to rehabilitate plantations and of rural traders wishing to purchase increased amounts of coffee. This situation is reportedly resulting in buyers with cash buying coffee at bargain prices when growers urgently need cash for necessities;
- Traditional high consumption levels by coffee-growing families, immediately post harvest when communities expect cash from coffee sales to be shared; and
- No industry coordination and the lack of any organization for sharing information and jointly planning interventions.

37. There is significant potential to increase production of high grade coffee for specialty markets, but the challenge is to develop and maintain consistently high coffee quality. This requires improved coordination among the key stakeholders in the coffee value chain. As a follow up to the International Coffee Conference held in April 2009,⁹⁴ there were suggestions as to how to coordinate interventions. A working group with members from processors and the MAFF has met (latest gathering in October, 2009) to discuss concrete actions and activities. However, intervention details are still unclear. In general, most organizations recognize the development challenges facing the sector, but there is little communication between the organizations and donor projects. This results in the duplication of efforts and lack of synergy between the support programs. There is clearly a need for better donor coordination to ensure that various projects reinforce each other and there is technological spillover. Discussions are ongoing as to whether a Coffee Board, supported and managed by the industry groups, is a more effective way to advance stakeholder coordination, productivity, and export competitiveness in Timor-Leste's coffee sector.

Examples of Support Initiatives

38. In addition to CCT, there are currently several other organizations and projects assisting smallholder coffee farmers but on a small scale.⁹⁵ The MAFF's Coffee Unit has initiated

⁹³ "Conference Proceedings: 1st International Conference on CAFÉ TIMOR" (Dili: Apr 2009); MAFF, *Coffee*; and Deutsch.

⁹⁴ 1st International Conference on CAFÉ TIMOR.

⁹⁵ Details of their activities can be found in: MAFF, *Coffee*.

several small rehabilitation programs, reportedly including the distribution of 20 pulping units, establishment of six central nurseries (targeting production of 800,000 coffee seedlings in 2009),⁹⁶ and a rehabilitation program that pays farmers \$200-300/ha and works with 30 farmers on approximately 50 hectares. They employ two centrally-based coffee specialists and two specialists in the Ermera district.

39. **It is estimated that coffee production in Timor-Leste could more than triple (and possibly quadruple) through replanting and pruning alone.** The MAFF and several donors working with coffee-growing communities have already initiated a ‘*coffee commodity development program*,’ and it is recommended that this program be further supported to achieve a target of rehabilitating or replanting 40,000 hectares by 2020.

40. **The MAFF’s 2009 study on coffee presents several coffee sector development initiatives and assesses their likely impacts on a large number of growers across the sector.** It also identifies a number of distinct approaches for the development of the coffee sector, including:⁹⁷

- Commercial private sector development by processors and traders;
- Community capacity building practiced by NGOs and the CCT; or
- a combination of both.

Grain and Pulses (priority Mungbean)

Overview

41. **Whilst there is potential for increased export earnings from the sale of mungbeans to Indonesia, the relative size of this subsector needs to be kept in perspective.** This is particularly the case when compared with the potential of the coffee subsector to generate increased foreign exchange and to impact on rural poverty. The analysis above concludes that the coffee industry could be 15 times the size of the mungbeans industry in terms of export earnings and benefit six times as many rural households, hence the recommended focus on coffee as a priority export crop.

42. **In the southern parts of Timor-Leste, agro-climatic conditions are highly suitable for the production of pulses.** An estimated 10,500 ha was in production pre-Independence.⁹⁸ In 1997, mungbean production was estimated to be more than 4,000 Mt from an area of 4,000 ha.⁹⁹ After Independence and following the departure of Indonesian traders, the lack of marketing infrastructure practically wiped out mungbean production. Any current production is consumed by farmers, with small quantities sold on the domestic market. Estimates of domestic trade are in the range of 300 to 400 Mt from about 1,000 ha. Limited volumes —about 100-125 Mt— are exported to West Timor, Indonesia.¹⁰⁰ Domestic production is inadequate to meet the domestic demand as indicated by the recently introduced GOTL and World Food Program (WFP) schemes. Hence, mungbean is imported out of season under the Food Security Program —more than 2,000 Mt in 2006.¹⁰¹

43. **Most growers are subsistence households. Re-starting mungbean cultivation would mean a valuable source of supplementary cash.** Average yields are reportedly low, on average 300-500 kg/ha, with most growers cultivating less than one hectare. Mungbean is a low-input crop, requires no tilling, and is relatively easy to grow. It does not pose any major technical problems, except occasional attacks by insects. If not sprayed, the life span of stored seed is only 3-4 months.

⁹⁶ The quality of the seedlings produced in MAFF’s nurseries was poor and the seedlings were distributed too late in the planting season.

⁹⁷ MAFF, *Coffee*.

⁹⁸ Sendall; MAFF, *Mungbeans*.

⁹⁹ MAFF, *Mungbeans*.

¹⁰⁰ MAFF, *Mungbeans*.

¹⁰¹ MAFF, *Mungbeans*.

Also, the no-till practice makes production a carbon-credit efficient practice,¹⁰² and the crop contributes to improving soil fertility as a legume plant. Usually farmers keep their own seed, which is adequate for an area handled by family labor. In lean years, all output is consumed. In some areas, increasing the planted area requires additional labor or mechanical preparation (and therefore not no-till) of the ‘sleeping land.’¹⁰³

44. **There is clearly scope for increasing production and existing commercial demand, both in Indonesia and in Timor-Leste.** For the latter, there is demand from the recently introduced school feeding program. Also, in 2007, the Dili exporter Timor Global Pty Ltd conducted an export trial to Singapore of mechanically brushed and graded produce—the quality of which was well accepted. But increased supplies are required to commence exports to other countries. The local variety is in strong demand, reportedly receiving a premium price over improved varieties. A further value adding opportunity has been highlighted in separate USAID Dezenolve Setor Privadu (DSP) studies, outlining the attractive seasonal market price differences between peak and off-peak seasons in Kupang, West Timor. Programs for storing mungbean for several months will, however, require new skills and capital in order for this value chain to value-add.

Chain Operators

45. **Apart from the many subsistence farmers, other stakeholders are rural collectors and traders handling small volumes for the domestic market. In the Bobonaro and Covalima districts, a dozen trucks of mungbean are exported annually to Atambua, West Timor.** The major buyer is currently the MTCI, procuring produce from district traders for the school feeding program and storing product in their Dili warehouses for gradual release. As the MTCI’s minimum price —c.i.f. Dili warehouse— has been fixed slightly higher than average prices paid by Atambua importers, most of the mungbean produced is now procured by the MTCI. This incentive is welcomed by farmers although the scheme is unlikely to be sustainable in the long-term. Firms involved in buying and exporting mungbean are:

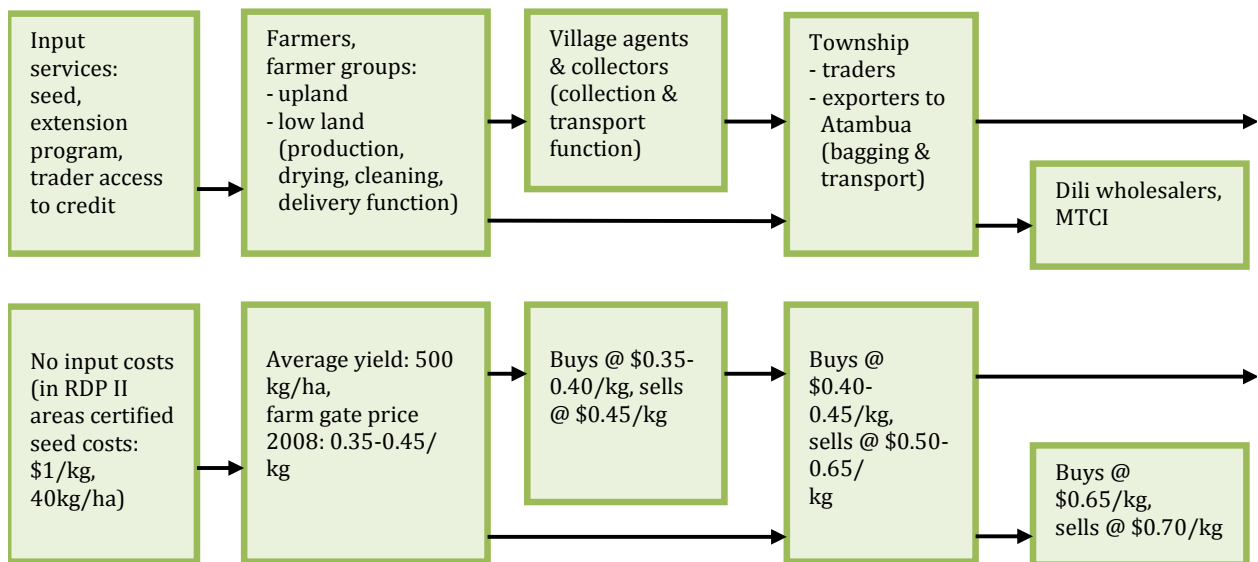
- Leo Atsabe Ltd, Maliana;
- BURAS HAUBUR, Maliana; and
- COMICO Ltd, Covalima.

46. **The structure of the mungbean value chain is short and simple, as depicted in Figure 4.14.** The major stages include: (i) farm production; (ii) negligible on-farm post harvest handling; (iii) farmer-to-local buyer/collector; (iv) domestic wholesaling/retailing and/or export to Atambua; and (v) consumption. Following the exodus of Indonesian traders and entrepreneurs after Timor-Leste’s Independence, only few agricultural input service providers and rural traders have established themselves in this market.

¹⁰² If applied; at present there is are no zero- or minimum-till practices used in Timor-Leste, except for traditional swiddening with dibble sticks on steep slopes.

¹⁰³ Preben Larsen, *Timor-Leste Agriculture Based Value Chain Promotion, RDP II* (Prepared for GTZ/EU/MAFF, Apr 2008); Preben Larsen, *Timor-Leste Agriculture Based Value Chain Promotion, RDP II* (Prepared for GTZ/EU/MAFF, Oct 2007); Preben Larsen, *Timor-Leste Agriculture Based Value Chain Promotion, RDP II* (Prepared for GTZ/EU/MAFF, Sep 2008).

Figure 4.14: Timor-Leste: Mungbean Value Chain



Note: all prices are averages.

47. In the MAFF's *Commodity Profile Series No. 3*¹⁰⁴ (on mungbeans), a detailed study is presented on Timor-Leste's competitive advantage, indicating seasonal advantages¹⁰⁵ of exporting to West Timor, and providing information about Timor-Leste's wholesale break-even purchase price. In addition, a farm gross-margin/cost of production model is presented for intensified mungbean production using West Timor farm trial results.

Value Chain Bottlenecks

48. **Mungbean value chain upgrading and expansion of production efforts are facing a number of reported key challenges¹⁰⁶ to enhancing productivity, competitiveness, and exports including:**

- Inadequate/ineffective extension services —reportedly the most critical constraint;
- Insufficient seed supplies of improved varieties to meet demand from new growers, who also lack resources to purchase seeds;
- Traditional farm cultivation practices, resulting in low productivity of farm labor;
- Large numbers of small growers that are difficult to reach;
- Low commercial mungbean quality for export to Asian markets;
- Difficult market access for growers' increased production due to insufficient number of local traders, poor roads, and lack of networking with buyers;
- Local entrepreneurs lack access to formal credit and facilities to handle increased purchases, and to export to West Timor; and
- Large tracts of 'sleeping land,' particularly in Covalima district, requiring industrial tractor services to plough upland areas for corn inter-cropped with mungbean.¹⁰⁷

¹⁰⁴ MAFF, *Mungbeans*.

¹⁰⁵ In India and China in-season mungbean production takes place in October, and in Timor-Leste rainy season production takes place in May.

¹⁰⁶ Larsen, *Apr 2008*; Larsen, *Sep 2008*; Larsen, *Oct 2007*.

¹⁰⁷ Note: this is not no-till as suggested earlier.

Examples of Support Initiatives

49. **Efforts are being made to fill gaps by developing the needed services with support from development partners.** For example, the Second Rural Development Programme (RDP II) is supporting NGOs and rural traders, such as the Fini Esperansa and Hadomi Malu, both of whom are promoting mungbean production. Also, USAID DSP promotes mungbean production and linkages among mungbean farmer groups, collectors, and traders. The project also provides seed grading equipment as a grant to Fini Esperansa and Covalima. The RDP II supports private sector certified seed development and seed distribution as well as the upgrading of MAFF's extension services to improve farmer productivity and market linkages. The RDP II has put in place an arrangement with the ANZ bank for rural traders to gain access to a formal line of credit of up to \$4,000 on commercial terms but without collateral.

50. **As a result of the RDP II's¹⁰⁸ ongoing value chain consultations among chain operators and support agencies, preliminary interventions for chain upgrading have been identified and problems and challenges are being addressed.** Given limited resources, skills, and experienced operators in the agricultural services sector, interventions with the best chance of success were selected by applying the five steps for value chain promotion outlined in Annex 4.4. The interventions are gradually being implemented and tested during consecutive agricultural seasons, e.g. involving the MAFF's extension services, NGOs, and support to traders both for wet-season commercial mungbean upland production in Bobonaro and wet and dry-season lowland production in Covalima. Furthermore, formal commercial credit facilities have been provided to rural traders as well as support for linking growers to traders. The RDP II's TA includes:

- 'Seed grants' to distribute improved quality seeds from Fini Esperansa, delivered through contracted local traders and NGOs under the RDP II private sector input supply revolving fund scheme;
- funding of a NGO extension service scheme to test a private sector alternative extension model;
- recruitment of short-term Indonesian field crop production specialist to improve the delivery of NGO and MAFF extension services and the work experiences and skills of staff; and
- formal credit to local traders through the ANZ bank on commercial terms with GTZ providing bank guarantees.

51. **Based on RDP II's experiences in Bobonaro and Covalima Districts, preliminary tests have shown positive results from mungbean production when basic essential support services and incentives for growers and traders are provided.** Increased output can be exported to Indonesia and other Asian nations, creating direct benefits for poor farmers. Hence, this value chain approach could systematically be promoted and easily replicated in other districts particularly in the southern parts of the island, *but for this, TA would be required*. As for improving the contents and delivery of the public extension services in general and for grains and pulses provided by the MAFF in particular, the following (Box 4.2) is excerpted from the *Strategic Framework for Rural Development in Timor-Leste*:¹⁰⁹

Box 4.2: Notes on Public Extension Services

"MAF has recently recruited 400 extension officers, allowing one extension worker for each village in Timor-Leste. They are supported by sub-district coordinators and supervisors at district level [...] A review of the whole agricultural knowledge system is required. Firstly, the skills level of extension workers needs to be improved through developing quality curricula for pre-service training at agricultural secondary schools, colleges and universities. A career development program for in-service training also needs to be developed.

¹⁰⁸ Larsen, Apr 2008; Larsen, Sep 2008; Larsen, Oct 2007.

¹⁰⁹ Sendall.

Pro-active, client-based extension management is of a priority concern, as is improving farmer-based technology development through integrated research-extension approaches. An important consideration is the limited number of employment opportunities within the public extension service. More graduates will be entering the private sector, thereby requiring different skill profiles. Private sector training providers for farmers should be encouraged, through promoting private sector partnerships with a focus upon increasing incomes through agribusiness. With limited public extension coverage, farmers themselves will also need to be better educated and have access to short duration training courses. A five-year program to strengthen the agricultural extension system is required to address the above.¹¹⁰

It is also proposed to support longer-term commodity development programs and public private partnerships for the provision of strategic extension campaigns. MAF's main roles would be coordination and funding. Industry experts would be required to develop extension and training materials to promote specific technologies and techniques or address specific constraints, such as diseases for specific crops. Extension officers from MAF and the private sector, such as NGOs, would then be trained on the technologies prior to mobilizing the campaigns. Such extension campaigns are performance driven, have a wide coverage and also encourage the emergence of private sector extension providers. It is proposed to develop and execute strategic extension campaigns, through public private partnerships, for each of the commodity development programs described above, by 2015."

Livestock (Cattle)

Overview

52. Grazing and animal resources in Timor-Leste are undeveloped, with extensive underutilized grazing lands that can be developed to promote the export of live cattle to Indonesia¹¹¹. The area of grazing land is reported to be 206,000 ha, and the districts with the largest areas are Lautem, Covalima, Manufahi, and Viqueque.¹¹² In 2001, the number of beef cattle was estimated to be 164,000, which in 2004 was reported to have increased to 174,000 by the MAFF's Livestock Division.¹¹³ The accuracy of these data is disputed and some sources claim that the beef cattle population might be only around 80,000 head. Based on reported cattle numbers, currently the most important areas for raising cattle are Bobonaro, Oecussi, Viqueque, and Covalima. Approximately 80 percent of the herd is cows, predominantly Bali cattle which are well adapted and easy to handle (but do not travel well in small trucks on poor roads), and the balance is buffalo, mostly used for the traditional preparation of rice fields and consumption at traditional ceremonies.

53. The cattle sector comprises mainly of smallholders keeping on average 2 to 5 head each, grazing on communal land pastures and crop residues. Only a few medium-size cattle owners keep animals primarily for status and consumption at traditional ceremonies rather than for commercial purposes. As summarized in Annex 4.5 on cross-cutting value chain constraints, most farmers keep cattle to sell for cash in emergency, e.g. as a 'bank,' although the status element is strong and viewed according to the number of animals in a family.

54. The export industry is currently geared for Indonesia, focusing on small numbers of male live bulls.¹¹⁴ There is, however, a growing domestic market for beef due to increasing consumption and tourism, catered for by local individual butchers cum retailers in Dili. They operate at 10 slaughtering points, mostly inside open markets, since the abattoirs (only public) are not operational. Some 20 to 30 cows and buffaloes are estimated to be slaughtered daily in Dili, i.e. approximately 9,000 head annually. Only limited quantities of fresh local beef are sold in supermarkets and most is retailed at the three daily open markets in Dili. Due to the lack of cooling facilities, beef is not aged and is therefore of low quality and sold on average for \$3 per kg. In 1998, a

¹¹⁰ The forthcoming RDP IV will assist with this task, as will Seeds of Life Phase III.

¹¹¹ With one proviso: that the noxious weed *Chromolaena* can be eradicated and replaced with productive and palatable pastures. At present much of Timor-Leste's grazing lands are invaded with this weed which means that large areas of "resting or sleeping land" are currently totally unproductive.

¹¹² MAFF, *Cattle*.

¹¹³ Latest available data.

¹¹⁴ Prior to Independence, cattle 'exports' to Indonesia were reportedly around 5,000 heads.

modern and well equipped abattoir was constructed in the Tbar sub-district and was ready for operation. But during the 1999 violence, it was stripped of all equipment and since then abandoned.

55. **About 200 Mt of frozen beef are imported into Timor-Leste annually, mainly from Australia and New Zealand, and sold in the four supermarkets to expatriates and middle income local customers.**¹¹⁵ The imported beef is reportedly of the lowest quality, often referred to as 'freezer burned' beef, yet retail prices are between \$8 -12 per kg. Thus, there is also a potential to substitute some of the beef imports — in total equivalent to some 1,400 local cattle annually.¹¹⁶

56. **The potential to increase live cattle exports to Indonesia is considerable, provided: (i) the very small base herd can be increased in size to generate increased annual turnoff; and (ii) the industry is not under-cut by Australian exports if it becomes a serious competitor.** Indonesia's demand for beef is estimated to be growing at 6-8 percent per year, and imports are likely to supply 38 percent of their demand by 2010.¹¹⁷ More than 750,000 head per year are imported live from Australia, most of which are fattened for 2 to 5 months in Indonesian large industrial feed lots. There is also strong demand in Indonesia for Timor-Leste's Balinese-type cattle due to their low meat fat content compared with Australian-breed Indonesian feed-lot fattened cattle. TA could play a crucial role in increasing cattle production for export.

Chain operators

57. **The structure of the live cattle export value chain is long, involving extensive Indonesian inter-island trade, as depicted in Figure 4.15.** The DTIS analysis primarily considered the Timor-Leste part of the chain. Rural traders commonly buy from subsistence farmers, often acting on behalf of exporters who purchase the bulk of traded live cattle. Rural traders transport the live cattle either to Dili butchers or sell them to one of the few exporters operating holding yards with some feeding prior to export to West Timor.

58. **According to the MAFF's Livestock Division, 3 businesses exported live cattle and buffalo bulls to Indonesia in 2008.**¹¹⁸ The CCT was the largest exporter, and the two other firms operated out of Covalima district. The number of bulls exported in 2008 was reportedly around 3,000 head at an estimated total value of \$750,000, including export from the Oecussi district, with 80 percent assumed to be cattle and the remainder buffalo.¹¹⁹ A small number of cattle are exported unregistered, especially from Oecussi, although at lower prices than those legally exported.

¹¹⁵ Sendall.

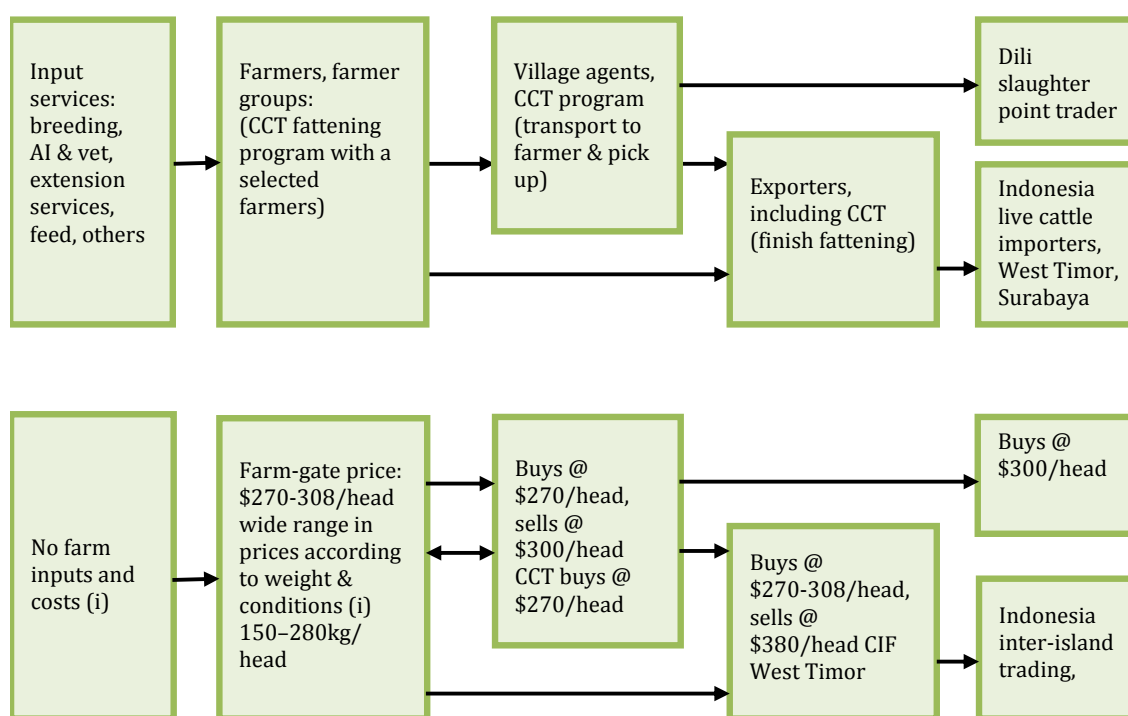
¹¹⁶ Sendall.

¹¹⁷ Sendall.

¹¹⁸ The export of only the heaviest bulls is applying reverse genetic selection to the herd.

¹¹⁹ Data from the MAFF's Division of Livestock include estimated illegal/informal border export.

Figure 4.15: Timor-Leste: Live Cattle Value Chain for Export and Domestic Market



(i) Farm- level budget data for the CCT cattle operation are presented in *Timor-Leste, Commodity Profile Series: No. 4 Version 1 – Cattle*. Note: All prices are secondary data, average and recorded during a few interviews. In MAFF’s *Timor-Leste, Commodity Profile Series: No. 4 Version 1 – Cattle* a detailed value chain for a 280 kg animal shipped to Jakarta via Surabaya is presented together with a Timor-Leste value chain for cattle slaughtered in Dili.

59. **The market prices paid for cattle in Timor-Leste are closely linked to the overall cattle prices in Indonesia.** They generally reflect export parity prices with the f.o.b. prices for Australian live cattle exported to Indonesia from the northern part of Australia, which is a common guideline, quoted as follows:

Table 4.2: Current live cattle exports to Indonesia, Darwin FOB prices:

Live cattle	AU\$/kg	US\$/kg
Steers	1.80	1.65
Heifers	1.50	1.40
Cows	1.20	1.20

Cattle Value Chain Bottlenecks

60. **Development support for the cattle industry in Timor-Leste has barely started.** The MAFF’s Livestock Division has established a small communal fodder bank in the Same District and some plots in other areas, but the implementation of enhanced productivity and farm management practices are reportedly proving difficult when applying existing farm production practices as a model. It appears that farmers are reluctant to carry fodder and cut large volumes of dry matter needed to feed the animals,¹²⁰ whereas the farming model developed by the CCT is reportedly more successful.

¹²⁰ MAFF, *Cattle*.

61. **The cattle industry's upstream and downstream value chains are facing a number of challenges in expanding production and in enhancing productivity and export competitiveness.**¹²¹ Some of the key constraints include:

- A very low production base (small national herd size) which limits the size of the annual turnoff of surplus males and eventually surplus females,
- Low farm productivity due to traditional, rudimentary farm management practices, resulting in long inter-calving intervals, high calf mortality, and low calving percentages;¹²²
- Inadequate feed supplies from either forage, cut-and-carry, or poor pastures which are invaded with unproductive weeds;
- Herd inbreeding, resulting in animals too small to meet Indonesian import requirement of >280 kg live weight;
- Veterinary services not yet operational, primarily due to lack of farmer demand and poor public funding and training facilities;
- Only bulls can be exported to Indonesia; and
- Lack of formal credit for farmers, traders, and feed-lot operators.

62. **Value chain stakeholders interviewed during the DTIS field work acknowledged the potential to create a sizable live cattle export industry.** However due to reduced national funding allocated to the MAFF's Directorate of Livestock, national efforts are currently very limited and the challenges cannot be addressed through the current capacity of MAFF's Livestock Directorate. Further support is needed to bring together all the key value chain stakeholders from the private and public sectors as well as the development partners to achieve progress.

Examples of Support Initiatives

63. **Despite promising potential to upgrade the live cattle export value chain and expand cattle sector production, only one development partner has been providing TA to developing this industry.**¹²³ The CCT's Procurement and Fattening System in Western Districts Project, which commenced after Independence, is continuing with the development of a CCT export model for cattle fattening, and it is placing young bulls with subsistence farmers to stall feed and later export to Indonesia. Increasingly, the bulls are also being sold into the local market. The CCT provides veterinary services to participating farmers, employing six full time staff and using CCT trucks to transport animals. In mid 2009, more than 10 bulls were sold weekly in the Dili market because of Indonesia's stricter phytosanitary, quarantine, and import restrictions, which caused a temporary border closure to imports of agricultural produce from Timor-Leste.

64. **Long-term commitment is required by the key stakeholders to develop and create stable conditions for increasing cattle production and live cattle export.** Targeting organic markets for live cattle exports is clearly another prospect for Timor-Leste. Steps can be taken to meet the compliance standards for entry into such markets by obtaining organic production certification. Stakeholders must agree on a feasibility study for a *Timor-Leste Cattle Development and Improvement Project*. Extension staff need to be dedicated to the cattle industry, rather than part of a general extension service.¹²⁴ The task of cattle breeding and improvement of livestock is a long-term process, and 7 years would be a minimum timeframe for such TA to the MAFF and private sector.

¹²¹ MAFF, *Cattle*.

¹²² A forthcoming ACIAR-funded adaptive livestock research project is expected to address some of these constraints.

¹²³ ACIAR's adaptive livestock research project is about to commence.

¹²⁴ MAFF, Directorates of Livestock and Agribusiness, *Working Paper, 2007: A Strategy for Developing the Timor-Leste Cattle Industry and Cattle Exports* (Dili: MAFF, 2007).

The CCT experience stresses the need for support initiatives to be particularly *simple and basic* given the traditional nature of Timor-Leste's cattle sector.

C. CONCLUSION AND RECOMMENDATIONS

65. **Agriculture has good short-term opportunities for export growth and diversification, which at the same time has the potential for wide-spread impact on rural poverty.** In terms of priorities, the coffee subsector stands out as the best opportunity to: (i) increase export earnings from \$10-15 million to around \$45 million; and (ii) increase coffee grower's incomes by up to \$500 per year. The size and geographic spread of Timor-Leste's coffee industry means that this subsector should be afforded top priority by donors and GOTL. Other subsectors (such as cattle and mungbean exports) also have potential to achieve the same objectives, but not on the same scale and therefore should be afforded secondary priority in terms of GOTL resource allocation and donor support.

66. **The review of the value chains of these three subsectors demonstrates that commercial demand does exist for such products, both through substitution of existing imports and/or potential demand from international markets.** However, to fully capitalize on these opportunities, a number of cross-cutting constraints to agricultural development need to be addressed along with specific constraints in some of the subsectors.

67. **Some key cross-cutting issues have been identified above.** These include inadequate and poor quality of extension services; general lack of market information and coordination (both horizontal and vertical), which is particularly important given the large number of small growers; lack of access to formal credit; absence of input supply markets with development agencies and government currently providing and subsidizing all inputs; and the lack of mechanisms for public private dialogue. At the same time, value chains tend to be short and poorly developed with weak or non-existent marketing channels and limited value-added activities (i.e. drying, storage, processing, and packaging).

68. **Recommendations for cross-cutting issues for all subsectors include:**

- (a) Establish an effective agricultural extension service model (public and/or private). Among other things, the extension services should focus on improving crop and livestock production practices and address current problems with rudimentary farm management systems.
- (b) Evaluate the merits and feasibility of forming additional farmer cooperatives or producer groups to improve coordination among the many small growers while also strengthening the organization, management, and technical skills of existing farmer organizations.
- (c) Strengthen input supply markets with a view towards providing affordable but good quality inputs (e.g. improved variety of seeds and simple agricultural machinery). This will be essential for the overall sustainability of the value chains.
- (d) Develop industry representative organizations along with mechanisms for public private dialogue (e.g. consultative groups for each of the subsectors) as a means to encourage greater coordination around identifying, organizing, and guiding the export orientation of these subsectors.
- (e) Strengthen rural financial services. This may include an assessment of whether to expand the RDP II/ANZ initiated line of credit program for rural traders, and micro credit through existing providers.
- (f) Provide technical and financial support to agribusinesses for the development of value-added activities and market linkage activities.

69. **Recommendations specifically for the coffee subsector include:**

- (a) Plan, prepare, and implement the initial rehabilitation of coffee plantations, including the pruning of aged trees and/or their replacement with new seedlings, and inter-planting to increase plant density, to increase average green bean yields from 150-200 kg/ha to around 650 kg/ha.
- (b) Promote 'Integrated Pest Management' (IPM) techniques for controlling the main pests and diseases, such as coffee flower beetle and rust, and for improving plant resistance with mechanical and biological control. These measures will be required to achieve and maintain organic certification.
- (c) Establish and maintain clearly defined standards and classifications, taking into account the liquor flavor and taste of beans, size grade, and defects proportion.
- (d) Devise farm gate price incentives for high quality organic coffee following selective picking of ripe berries as opposed to strip-picking of unripe and immature berries, thereby reducing quantities of defective beans in processed coffee and expanding Timor-Leste's reputation as a producer of quality organic coffee.
- (e) Petition for the prioritization of road improvements, especially farm to market roads within coffee growing areas as well for roads connecting the production areas to Dili, in order to reduce transportation costs for the buyers/exporters.

70. **Recommendations specifically for the mungbeans subsector include:**

- (a) Review the requirements (quality, quantity and type) for renewed/expanded mungbean exports to Indonesia and for local consumption, taking into account seasonality of production and demand.
- (b) Work with the MTCI (and possibly UNTL) to improve in-country mungbean storage practices to overcome the current problems associated with bulk storage losses.
- (c) Work with the Seeds of Life program to: (i) identify improved mungbean varieties and then test on station and on farm with cooperative farmers; (ii) introduce no-till cropping systems which are not reliant on annual mechanized ploughing services; and (iii) bulk-up and distribute increased supplies of seed of improved varieties.
- (d) Through cooperating development partners and the MAFF's extension system, target potential mungbean producing farmers on the south coast with the objective of forming producer groups to act as technology transfer and market accumulation focal points.
- (e) Work with current small accumulators and traders to re-establish links with mungbean buyers in West Timor and other parts of Indonesia and with the agencies responsible for Timor-Leste's school feeding program which uses mixed legumes in food supplements.
- (f) Liaise with Timor-Leste's road building/reconstruction programs with the objective of improving access to key mungbean production areas in the south and in other areas with suitable climate and soils and access to supplementary irrigation.

71. **Recommendations specifically for the livestock subsector (cattle) include:**

- (a) Update the 2004 livestock census results regarding cattle populations by district. This will be important to help focus development of the cattle subsector. While there are statistical estimates of 175,000 cattle, market players have indicated a much lower figure of less than 80,000 head.
- (b) Design a strategy to increase the size of the base herd in order to increase annual turnoff numbers for export and local consumption. This is necessary even if the current cattle

population is 175,000 head. The strategy should include a national plan to increase the productivity of communal grazing areas and to attempt to control/eradicate *Chromoleana*.

- (c) Re-evaluate and implement current food 'health and safety' regulations which should apply to the slaughter of animals within Dili proper. This is critical for any expectation of competition with much of the 200 Mt of imported beef.
- (d) Identify and evaluate options for proposing a new (small-medium scale) public or private abattoir construction and operation close to Dili, or alternatively for rehabilitating the Tbar facility in order to process quality meat to compete with imported beef.
- (e) Evaluate and support the development of a national livestock training center and assess the potential for converting the old Tbar abattoir into a training center for livestock-related training programs. Participation by private sector, university, or MAFF trainees will vary by training activity (i.e. improved cuts, fodder raising/feeding, breeding, grazing development and management practices, cattle raising business models, etc).
- (f) Monitor the final design and implementation of the forthcoming ACIAR-funded adaptive livestock research project, with the objective of aligning other programs with this important national initiative.

CHAPTER 5: HORTICULTURE SUBSECTOR – FUTURE EXPORT OPPORTUNITIES

A. INTRODUCTION

1. **This overview of Timor-Leste’s horticulture subsector considers the potential for producing and marketing export quality vegetables and fruits within the coming decade.**¹²⁵ The potential to produce and export quality fruit and vegetables is relevant because these crops are labor intensive and can contribute to employment generation and income generation in rural areas. There are pockets of micro-climates in Timor-Leste which are suitable for the off-season production of selected horticultural crops. Although a wide range of vegetables and fruits was grown in small parcels on hill sides and in small gardens in the past, relatively few farmers cultivate these crops today. However, a transition appears to be underway following the initial technical success of a greenhouse now operating in Aileu.¹²⁶ In addition, commercial agribusiness enterprises are reported to be entering Timor-Leste’s horticulture subsector.
2. As background to such an assessment, however, it should be kept in perspective that Timor-Leste faces major constraints to the development of this subsector because of: (i) distance from export markets (except for Indonesia and Northern Australia); (ii) sea and air freight disadvantages; (iii) scattered production and collection sites; (iv) lack of suitable technologies and extension services to farmers; (v) considerable climatic variations which are not conducive to regular and timely crop production; (vi) past failed attempts to establish export markets for perishable products; and (vii) the lack of Sanitary Phytosanitary Certification capacity. Therefore, whilst in theory there may be potential to export quality fruit and vegetables from Timor-Leste, existing constraints make such ventures extremely risky with limited potential to attract foreign investment in the short-term. But given some of the preliminary trials and investments, horticulture may be an area to look at over the medium-term as some of the wider structural constraints are addressed.

B. HORTICULTURE SUBSECTOR

3. **A Horticulture Production Feasibility Study for Timor-Leste was conducted in 2004** by Winrock International and commissioned by USAID to evaluate the export potential of vegetables and fruits to Australia through Darwin. Although the study found export potential for a range of fruits and vegetables (asparagus, cherry tomatoes, sugar snap peas, baby corn, green beans, sweet potato, red banana, limes and lemons, passion fruit, and guava), the detailed analysis was confined to snow peas. In particular, it considered whether Timorese exports could compete with those from China and Africa.
4. **The study found favorable conditions for the production and export of snow peas.** A field survey was conducted in Ermera and Ainaro Districts, with a focus on Aileu and Maubisse, given their elevation, favorable rainfall patterns, and road access to the port in Dili. The field visits found no case of fungus and no obvious insect infestation in locally grown snow peas. For assembly, packaging, storage, and pre-cooling, Aileu town was found to be a suitable site for a centrally located packing house given its position on an all weather road, good water supply, and access to electricity. Although farmers were generally interested to participate in export trials for snow peas, they were reluctant to allocate large areas to vegetable production given market uncertainties.

¹²⁵ This section draws on extensive field experience with the horticulture subsector of Timor-Leste during the 2005 to 2007 period. It also draws on the *Horticulture Production Feasibility Study for Timor-Leste*, the results of the *Snow Pea Trial of 2006*, the findings from the *Assessment of Fresh Food Demand* by the DSP project of USAID in 2006, and DSP’s *Greenhouse Initiative* as initially implemented in Aileu in 2007/2008.

¹²⁶ This type of investment is probably not financially viable without considerable ongoing donor support and therefore the potential of further such investments needs to be kept in perspective.

5. **A preliminary breakdown of returns and costs suggested that the commercialization of snow peas from Timor-Leste could be profitable.** Table 5.1 presents the study's summary of production and marketing costs for snow pea exports to Darwin in 2004. This analysis was based on the shipment of 4,320 kg of export quality snow pea each week¹²⁷ in a 20' refrigerated container. Based on these parameters and agreements from Australian traders in Darwin and Perth, such a volume was profitable for all participants in the value chain. Farmers could earn \$1/kg of export grade snow peas, with a selling price in Australia of \$2.45/kg¹²⁸ and total packing, shipping, and storing costs of \$0.71/kg from the field to distributor in Darwin. Shipping rates from Dili to Darwin for refrigerated containers have not changed much since 2007 because these containers return to Darwin empty. Therefore, shipping lines are often open to negotiating favorable rates.

Table 5.1: Summary of Production and Marketing Costs for Snow Pea Exports to Darwin

Cost Item	Unit	\$/Unit	Total
Snow pea delivered to pick-up points	kg	\$1.00	\$1.00
Packing house costs*	kg	\$0.30	\$0.30
Storing, shipping to importer**	kg	\$0.41	\$0.41
TOTAL COST			\$1.71
Selling price in Australia (i.e. export price)			\$2.45
Profit/kg to cooperative/association/company		\$0.74	
Profit/week based on 4,320 kg		\$3,212.00	
Assume 50% profit retained** (\$/week)		\$1,606.00	
Dividend/farmer/week, 50% distribution		\$10.04	
Dividend/farmer/year***		\$522.00	
* See below. Includes transport to Dili.			
** Loan amortization, depreciation, repairs, etc. included in packing house budgets.			
** For payment to other shareholders, professional managers, losses, auditors, association overhead, taxes, university extension workers, etc.			
*** In addition to returns from snow pea growing.			
Shipping cost, Dili to Darwin	\$USD	\$AUD/hr	
Freight	\$900		
Export customs clearance	\$50		
Withholding tax, 2.64% of freight cost	\$24		
B/L fee	\$20		
Wharfage, Dili port	\$35		
Bunker adjustment factor	\$50		
Darwin port charges	\$158	\$225	
General sales tax, Darwin port fees @ 10%	\$16		
Trucking within Dili port area	\$100		
Customs inspection, Darwin*	\$112	\$160	
Labor for unloading, Darwin port (per hour)**	\$280	\$50	
General sales tax, Darin labor @ 10%	\$28		
Cost per container	\$1,772		
Cost /kg assuming 4,320 kg of produce	\$0.41		
* Rate is \$ AUD 160/hour, assume 1 hour inspection needed			
** assume 4 hours each by two laborers required to unload container.			

¹²⁷ Organizing the production, processing, local transportation and shipment of over 4 Mt of snow peas per week would be an enormous task and fraught with a range of risks, any one of which could cause the collapse of the industry.

¹²⁸ During the study period, a Perth broker offered a firm \$A 3.50/kg [\$USD 2.45/kg] for the container in Darwin. The current price for Chinese snow peas arriving in Perth range from \$A 4.50 to \$A 6.00/kg, or \$USD 3.15 to \$USD 4.20/kg.

Table 5.2: Changes in Shipping Rates between 2004 and 2007

	2004		2007	
	\$USD	\$AUD/hr	\$USD	\$AUD/hr
Shipping Cost Dili to Darwin				
Freight	\$900		\$900 (\$1,200)***	
Withholding tax, 2.64% of freight cost	\$24		\$24 (\$32)***	
Bunker Adjustment Factor	\$50		\$75 (\$125)***	
Wharfage, Dili port (SDV handles)	\$35		\$35 (\$50)***	
Darwin port charges (includes GST of 10% in 2007)	\$158	\$225		\$330 + \$5.50
GST of 10% on Darwin port charges	\$16			
Export customs clearance (SDV handles)	\$50		\$50	
B/L Fee (SDV handles)	\$20		\$25	
Trucking within Dili port area (SDV handles)	\$100		\$100	
Customs inspection, Darwin ** (Customs Broker)	\$112	\$160	Unknown	
Labor unloading, Darwin /hr (Customs Broker)	\$280	\$50	Time Unknown	\$75/hr/man
GST Darwin labor @ 10% [Customs Broker]	\$28			
Total cost per container	\$1,772			
Costs/kg assuming 4,320 kg of produce	\$0.41			
** In 2004 the costs for inspection were \$A 160/hour and assumed to need only 1 hour inspection (according to the shipping line and Darwin AQIS's acknowledged thoroughness, it is likely to take much longer!).				
***Different Figures were provided by SDV for 20' containers in Dili; those are also noted in parenthesis:				

6. **The critical issue was the unproven capacity to meet export requirements in terms of reliability, quantity, quality, and continuity of supply.** Achieving technical and financial sustainability would require extensive training and intensive organizational work with selected groups of farmers. Respondents in Darwin were concerned that imports from Timor-Leste would not meet the Australian Quarantine Inspection Service's (AQIS-Darwin) requirements. There was also lack of capacity in Timor-Leste to issue Phytosanitary Inspection Certificates.

7. **Based on the feasibility study, USAID agreed to conduct a snow pea trial and support commercial enterprises to grow snow peas using organic practices.** The feasibility study estimated that 4,320 kg of marketable, export quality snow peas would be needed for the weekly shipment¹²⁹ of one 20' refrigerated cargo container to Darwin. This would require about 320 farmers growing snow peas on 1,000 m² each over 2 seasons with a minimum initial yield of 3.5 ton/ha/crop or 225 Mt/year, with an expected value of about \$500,000. The practicality of the venture was tested in Aileu by a private entrepreneur based in Dili with TA support from experts in West Australia.

8. **After initial difficulties, by April 2006, the land was cultivated and fertilized; irrigation was installed; and the first planting was completed even though an extended rainy season hampered these efforts.** By 14 May 2006, the pea vines bore fruit, and snow peas were harvested and packed. Seventeen boxes of export quality snow peas were delivered for export to Australia. *Although Winrock attempted to expedite the shipment, the inability of the Timor-Leste Quarantine office to issue a Phytosanitary Inspection Certificates stopped the shipment.* Given the outbreak of civil unrest and riots in May, the project staff were unable to proceed further with the trial. Even

¹²⁹ From a marketing perspective, more frequent shipments of smaller volumes, such as 500 kg per shipment, would be less likely to glut the Darwin market and depress local retail prices, especially during the initial period when it would be difficult to orchestrate distribution throughout Australia. Likewise, with no experience to date, lower volumes would provide AQIS the opportunity to get used to managing inspections of imported fresh vegetable imports.

though prospective buyers in Australia had been identified and prepared for the delivery to Darwin and AQIS was reportedly supportive of the shipment, the snow peas were finally sold domestically.

9. **The main lessons from the snow pea trial include:**

- The scale of cultivation as a commercial enterprise *required use of heavy equipment for land preparation*, but such equipment was not readily available given that most agriculture equipment in Timor-Leste was in varying degrees of disrepair.
- The agribusiness enterprise required vigilant management regarding work habits during production-grading-shipping activities. However, given *insufficient middle management expertise* in Timor-Leste, *it will remain difficult to support medium or large scale horticulture production/marketing systems for export unless such management expertise is imported from another country in the short run* or hands-on training initiatives are followed with actual employment with agribusiness enterprises.
- The choice of models for this type of export intervention was a trade-off between: (i) organizing, training, managing, and coordinating hundreds of dispersed *small farmers*; or (ii) focusing resources and expertise on a *medium-large sized commercial enterprise* with access to middle managers who would be responsible for all aspects of the production-marketing system.
- Since high value horticulture crops are particularly perishable, they require far more detailed attention by such managers of a commercial enterprise or organizers of many small farmers. A viable alternative model could be the 'group model',¹³⁰ but only if the volume requirements were considerably smaller than those used for the trial.
- A critical issue related to the 'social situation' at the trial site was the consequences of a perception of 'users' rights to land,' even for public land. In the snow pea trial location, the local households who lived near the fields were accustomed to grazing livestock or growing their crops on this parcel of government land. These households exerted substantial pressure to be employed by the enterprise. However, the poor work habits and high pay expectations rendered this commercial enterprise model non viable for exports even though the land quality, access to water, public ownership, and location near a major road were technically favorable. This experience reflects what has been experienced in other places, such as the situation which is currently being experienced by Timor Global on its leased land in the coffee growing area.

Advanced Technology (Greenhouses)

10. **In 2007, the introduction of greenhouse technology sponsored by the DSP project provided a potential way forward for Timor-Leste's horticulture subsector.** The project sponsored initial work, which identified a level site north of Aileu and near Maubisse to construct and operate a greenhouse. A collaborative agreement with Bali Fresh provided training in Bali for a few young Timorese, contracted all the materials required for greenhouse construction and operations, and scheduled the construction and support activities of a team of Bali Fresh staff. At the village level, the Timorese staff made many visits to bring the local community along as partners in this effort. The business began gradually with hands-on training in the cultivation of a few vegetable crops until the local farmers were ready and able to participate in greenhouse production activities.

¹³⁰ In brief, the "group model" involves 10 or more farmers within a village who are organized by and around the local lead farmer in the cultivation of a new crop by working together within a designated field for all tasks from land preparation, bed formation, planting, crop care through to harvesting. All members of the group share in the money earned from the sale of the crop. It is an extremely effective method for learning about risky vegetable crops in site-specific locations and varied micro climates.

11. **The leadership and guidance of a well-trained and dedicated Timorese horticulturalist ensured effective planning, implementation, and monitoring of activities.** Likewise, marketing services were provided by the Zero Star Company, whose trucks made regular assembly and buying trips from Hatobuiliko to Dili. This company had access to imported plastic crates and a refrigerated truck to help ship high quality tomato and capsicum to supermarkets, restaurants, and individual consumers in Dili. This service, along with the efforts of other donor projects, has substantially improved the quality, selection, and quantity of fresh vegetables in Dili for most months.

12. **Given the positive publicity and recognition of this effort, including visits by high government officials, embassy staff, and managers of other donor projects, several other greenhouses are now in the pipeline.** If these greenhouses are constructed at good sites, operated by experienced and trained staff, and achieve their full potential, the volume of high quality tomato and capsicum may exceed consumer demand in Dili. *SPS certification will be critical for enabling the export of such surpluses.*

13. **Despite these positive developments, considerable caution is needed.** Some financial analysts doubt the longer-term viability of these ‘high-tech’ horticulture production models without ongoing and substantial support from donors and government. Furthermore, there are opportunity costs – would such investments benefit more poor households if aid and development funds were allocated to other crops which are grown by the majority of poor Timorese farmers and for which simple and proven technologies are available, e.g. rehabilitation of coffee plantations?

14. Financial viability and equity arguments are not the only issues. Since the middle of 2009, the first greenhouse has experienced serious disease and management-related problems resulting in closure at one point. The primary reason for this problem is that the DSP project lost the services of key Timorese technical and management staff and, in turn, the commitment and cooperation of the local farmers. Therefore, new greenhouse projects will need sound technical leadership and the ongoing commitment of local farming communities, otherwise such advanced horticulture production technologies will face serious risks.

15. **Lessons learned from the application of greenhouse technology in Timor-Leste include:**

- Advanced horticulture technology can be successfully transferred to Timor-Leste. However, the *scarcity of middle level management skills* and the constant need for a good working relationship with local farmers and employees make it very difficult to sustain production at an financially viable level on a longer term basis;
- Given the scarcity of Timorese professionals who have both advanced technical expertise and effective management skills, there is a need to acknowledge such individuals and provide other rewards for both skills, not just one or the other;
- Internal disputes or personality clashes among Timorese and foreign staff require immediate and effective resolution for all involved. Otherwise, resignations can destroy the project outcomes and adversely affect participating farmers;
- The fragile relationship between personnel management and technological requirements can result in lapses in greenhouse management procedures and rapid disease and/or insect build-up within the enclosed environment and bring production to a halt;
- A market-led, integrated marketing-production system is critical for planning purposes. The demand characteristics of the harvested commodity (and not just the plant growth characteristics) should dictate planting and harvesting schedules; and
- New locations for intensive horticulture crop cultivation will gradually experience a build-up of insect populations and incidence of diseases. These need to be anticipated prior to initiating this type of intervention.

Dimensions of Local Demand

16. **The DSP project carried out an *Assessment of Fresh Food Demand to estimate the potential for selling fruit and vegetables in Timor-Leste*.** The assessment involved a survey of the 5 major supermarkets/importers, 63 restaurants, and selected members of the food service industry (e.g. catering services) based in Dili during late 2006. The survey results were affected by the disruptions during that period and were never published. But the assessment found that the main imported vegetables were Chinese cabbage, potato, tomato, capsicum, onion, and garlic, totaling about 35 Mt/month in certain seasons. Other high value vegetables, such as cauliflower, snow pea, French beans, and lettuce were also in strong local demand. In some cases, local varieties could be sold as substitutes for imports. Importers expressed a strong interest in additional purchases of highly perishable vegetables from the local market because of losses experienced during transit from Singaporean or Australian sources. The main types of fruit imports were oranges, apples, and pears which reached 30-50 Mt/month. The supermarkets were the main buyers and sellers of imported fruits. Restaurants purchased three times more local fruits compared with imports.

17. **The interpretation of this assessment's data concluded that:**

- Selected high value vegetables, such as capsicum, tomato, cauliflower, snow pea, French beans, and lettuce can substitute for limited imports;
- Other high value vegetables which have strong market demand from supermarket customers include Chinese cabbage (white), Chinese spinach, and broccoli;
- For storable vegetables, if MAFF introduced improved production practices and larger, improved varieties to replace the small local garlic and onion varieties, they could generate good income for farmers as they can substitute for imports; and
- Field fruits, such as watermelon, musk melon, and other Asian melons are too bulky, expensive, and perishable to import in substantial quantities. However, supermarkets are very interested to sell these products if they are locally grown, reasonably priced, and of good quality.

18. **There has been progress since 2006/2007 in the production and marketing of vegetables and fruits, primarily for the domestic market.** There has been a sharp increase in the number of vegetable production and marketing initiatives. One supermarket has supported the production and marketing of vegetables delivered from selected growing sites. Several NGOs are establishing home garden projects as part of their programs, and the initial technical success of the greenhouse in Aileu has generated significant interest and plans to construct new subsidized greenhouses. The range of varieties, quality, and volume of leafy vegetables has improved substantially in Dili when compared to earlier periods. Investments in such businesses envisioned an initial import substitution process with deliveries to Dili supermarkets in order to gain cultivation and marketing experience, confirm product quality and reliability of the production/marketing systems practiced, and then gradually expand into accessible export markets.

C. CONSTRAINTS AND PROBLEMS

19. **The following list of constraints and problems provides an indication of priority interventions required to achieve eventual exports for the horticulture subsector of Timor-Leste.** The constraints include a high population density in most rural areas, unresolved land use versus ownership issues, poor transportation network limiting market access for perishable commodities, irregular rural access to year-round water supplies, limited farmer experience and expertise in cultivating commercial vegetables and fruits, and a traditional, risk-averse mindset common in subsistence agriculture which makes it very challenging to promote commercially viable enterprises for export grade vegetables and fruits.

20. **Safe Pesticide Usage.** Formerly, some within the government and among NGOs were aggressively opposed to the import and use of chemical pesticides given the country's image as a source of organic agricultural commodities. This is gradually changing. However, MAFF and National Directorate of Quarantine and Biosecurity (NDQB), in particular, would need to quickly establish the range of safe and unsafe chemical pesticides and manage imports accordingly. Likewise, farmers will need rapid and thorough training in the selection, use, and costs of using chemical pesticides for each type of crop. It will be important for Timor-Leste to decide at a national level if the country is to remain completely chemical (and GMO) free or whether selective importation and safe use of non-organic agricultural production inputs (including inorganic fertilizer) will be permitted. This is a fundamental policy issue which has the potential to lead to confusion and delay the introduction of modern agricultural production systems.

21. **Dangerous Quality and Types of Pesticides.** From the perspective of product quality, it has been reported that Timor-Leste has a wide range of chemicals and pesticides with some being expired, unsalable, or dangerous. This problem can become extremely critical in terms of consumer food safety whenever growers do not understand how dangerous a particular pesticide is or spray their crop just prior to harvesting. Lettuce is susceptible to this treatment because it needs to appear insect free (i.e. no holes in the leaves) when delivered to the retailer. Likewise, the spraying of chemical pesticides can cause problems of cross contamination. While the farmer is spraying in his field, wind can spread pesticides to neighboring fields.

22. **Market Failures in Dili.** The Dili-based marketing systems for fresh vegetables and fruits have serious issues, which if addressed would lower the costs of trading, improve services to consumers, increase employment with more retailers, and improve health safety standards:

- Retail sales in Dili use a 'unit-based' pricing system (e.g. piece, pile, can) rather than a 'weight-based' system, which is more commonly used. This makes it difficult to establish a meaningful 'Marketing Information System' with which to inform farmers of market conditions; and
- Several deteriorating, under-utilized, and unsanitary market facilities are located around the city. These have negative impacts on the health of trading families and become potential sources for contamination of the goods sold to consumers. Other adverse impacts include a reduction in the number of active traders and the acceleration of spoilage given the absence of cold storage rooms.

23. **Absence of Rural Assembly Markets.** In many rural areas there are few, if any, local traders, and local traders prefer to buy less perishable commodities which can be accumulated over time before transport to Dili. Likewise, most rural traders are agents of a larger Dili-based trader or factory. Thus, for most perishable commodities, such as vegetables, there are few, if any, local buyers. The *presence of a periodic wholesale market site*, timed to coincide with the local weekly retail market, could substantially increase competition based on itinerant buyers and provide farmers with better returns. It would also stimulate the care for and cultivation of additional crops, as shown by marketing research in India which confirmed that such stimulation occurs with the anticipated presence of active local buyers during the harvest season.

24. **Absence of Effective Input Support Systems.** MAFF projects, donor programs/projects, and NGOs import agricultural inputs, machinery, and containers at times on an 'ad hoc' basis, often in support of pilot interventions. Meanwhile, several institutions and agencies have complained that there has not been sufficient growth in the number, types, and location of private sector input supply stores. The small shops which are in business reportedly have limited inventories, along with few choices in vegetable seed varieties and related inputs, such as fertilizers and pesticides. In other words, the small scale input supply stores seem to be competing directly with inputs imported by the organizations and agencies referred to above rather than serving as the main conduits for the input

needs of these entities. This situation clearly inhibits the necessary development and growth of input support systems and services in the private sector.

25. **Absence of Cold Chains.** Although Chinese and local traders are developing a cold chain in Dili, there is no full cold chain for perishable products available in the interior of the country. This encourages supermarkets and restaurants in Dili to import agricultural products from abroad, including perishable fruits and vegetables, rather than sourcing locally grown products. As a result, a cold chain system that is viable, sustainable, and replicable will be an important step towards promoting import substitution and eventual exportation of locally grown fruits and vegetables.¹³¹ Some alternative technologies, like the QPod systems developed in New Zealand, would be ideal for exploring, establishing, and verifying export market channels at a realistic cost.

D. CONCLUSION AND RECOMMENDATIONS

26. **Progress in the production and marketing of vegetables and fruits, primarily for domestic markets, could provide the basis for gradual expansion and eventual exports.** While there has been an increase in vegetable and fruit initiatives and plans to construct new greenhouses, efforts directed towards future exports can only be realized after NDQB has achieved the capability to issue Phytosanitary Inspection Certificates (see Chapter 6). Nonetheless, given other constraints discussed above, horticulture is not recommended as a short-term priority for exports.

27. **Recommendations for possibly developing the *horticulture sector* include:**

- (a) Establish and conduct an on-going series of pesticide use, application, and safety courses both within the 3 agricultural high schools and for farmer groups around the country, especially those with vegetable growing experience. This should be pursued after finalizing a national policy on the use of non-organic production inputs.
- (b) Establish and implement regulations for pesticide safety and develop an effective mechanism to screen dangerous pesticide imports (e.g. through collaboration between NDQB staff, crop protection staff in MAFF, input supply stores, and donor projects).
- (c) Work with and devise schemes for interested private sector enterprises who are interested in investing in the establishment and operations of agricultural input stores in the country.
- (d) Identify, import, and test small scale cold chain equipment (suitable for a few hundred kilograms) which can provide refrigeration from the farm level to the full range of end markets, especially overseas markets.
- (e) Propose that donor projects implement and work within the longer term, practical strategy of Specialized Vegetable Cultivation Areas and Specialized Fruit Cultivation Areas to help consolidate and combine crop production with targeted input delivery services, extension advisory services, access to traders, and improved access to infrastructure.¹³²
- (f) Identify examples of the *group model*, study causal factors, and understand the dynamics of this rural Timorese model (as compared to the *small farmer model* or *commercial enterprise model*) for sharing risks and evaluating, undertaking, and supporting village level, agricultural change.
- (g) Rehabilitate all major retail market facilities throughout Dili and establish a meaningful Marketing Information System to inform farmers and buyers of market conditions. Consider encouraging a move from *unit-based* pricing to *weight-based pricing*.
- (h) Assess and test the potential for establishing rural assembly markets.

¹³¹ USAID, *Sustainable Improvements in Upland Agricultural Productivity and Incomes in Timor-Leste* (Feb 2006).

¹³² This strategy has been extremely successful in Taiwan.

CHAPTER 6: ACHIEVING SANITARY AND PHYTOSANITARY CERTIFICATION CAPABILITIES

A. INTRODUCTION

1. **SPS capacity is a high priority for both current agricultural exports but also for Timor-Leste's ability to expand its exports in the future.** SPS capacity in Timor-Leste is very limited. There are a small number of academics with experience in entomology and plant and animal pathology but not with sufficient experience to run a SPS laboratory. None of the physical, legal, regulatory, or procedural infrastructure currently exist that would permit Timor-Leste to comply with internationally recognized SPS requirements. Although Timor-Leste has had alternative arrangements to date, Indonesia has indicated that without SPS certification it will no longer be able to import Timorese products.

2. **There are generally three sets of quality standards when looking at the international trade in agricultural commodities.** First, there are 'entry standards' in terms of the SPS requirements of importing countries aimed at protection against insects and diseases. The quarantine service of the exporting country ensures their export commodities and cargo containers are clean and issue a Phytosanitary Inspection Certificate to that effect. Second, there are the 'domestic market acceptability standards' relating to the preferred commodity characteristics of the importing market. Often supermarkets cite these characteristics in terms of their store standards. This is separate from SPS requirements. Third, there are the 'shelf life standards' or commodity characteristics which enable long-distance transportation given the perishable nature of agricultural products. This chapter focuses primarily on the SPS requirements for exports from Timor-Leste.

SPS and Timor-Leste's Exports

3. **Lack of SPS capacity has not severely restricted Timor-Leste's exports to date.** Aside from coffee and candlenut oil exported to Singapore and Australia, Indonesia is the only country that receives exports of agricultural products from Timor-Leste. Cross-border trade with Indonesia appears to reflect mostly an informal export arrangement, continuing a historical trading pattern of selling internal surpluses for copra, candlenut, and livestock.

4. **The lack of SPS capacity and inability to issue Phytosanitary Inspection Certification has been accommodated in various forms, especially in the case of coffee beans.** Foreign quarantine services have granted Timor-Leste special status. For trade with Indonesia, an agreement signed in Kupang in 2005 allowed exports from Timor-Leste through an Export Permit rather than a Phytosanitary Certificate for a period of two years. Though there is some inspection and certification conducted at a border check point into West Timor, for example on livestock exports, these are reportedly not of a high standard. Coffee beans exported to Darwin require: (i) an Export Permit; and (ii) an Additional Declaration based on the conditions specified by Australia. For coffee exports to Singapore, a Phytosanitary Inspection Certification is issued in Singapore before onward shipment to the final destination.

5. **Although the arrangement with Indonesia was extended for two years in 2007, the Government of Indonesia has indicated that it will cease imports from Timor-Leste unless it complies with standard ISPM Export Certification System and Guidelines for Phytosanitary Standards.** In a letter dated January 6, 2009 from the Department of Agricultural Quarantine, Ministry of Agriculture, Indonesia, Timor-Leste was granted a one-year extension of the agreement and was urged to adopt internationally recognized SPS practices. A further twelve-month extension was granted at the end of 2009 following a request from the MAFF to the Government of Indonesia. Meanwhile, international agencies are also waiting for Timor-Leste to sign the International Sanitary

and Phytosanitary Agreement.¹³³ Border closure will have a major impact on farmers throughout the country. For example, in 2008, 508 tons of candlenuts worth \$279,000 were exported by four companies alone,¹³⁴ and in 2007, \$0.68 million worth of live cattle were exported to West Timor.¹³⁵

B. REQUIREMENTS FOR A SUSTAINABLE SPS SYSTEM

6. **The NDQB in MAFF is the responsible authority for issuing Phytosanitary Inspection Certification.** A Phytosanitary Inspection Certificate is a formal document issued by an exporting country's agricultural authorities to confirm that a shipment is free from disease, pests, and noxious weeds on the date of inspection. It is issued at the air, sea, or land point of origin for agricultural goods crossing borders.¹³⁶

7. **Establishing the necessary capacity to issue a credible Phytosanitary Inspection Certificate will take time.** The requirements for the NDQB include but are not limited to:

- A high level of professional expertise, including educated and trained entomologists and pathologists for inspecting agricultural export cargo.
- A range of physical facilities, including:
 - A Laboratory Building;
 - Repository Rooms equipped for holding and displaying the full range of insect and disease specimens present within Timor-Leste (refrigerated and non-refrigerated sections); and
 - Screen houses, warehouses for seized goods (refrigerated and non-refrigerated rooms), and the like at each exit point around the country.
- Full complement of administrative and technical manpower to manage and implement the range of functions for this organization from the headquarter offices to the compounds at each exit point.
- Legislation and other legal requirements, which provide NDQB with the jurisdiction for implementing all aspects of the SPS certification process, including search and seizure of dangerous goods.

8. **NDQB has developed a comprehensive plan with costing for all the prerequisites and basic requirements to establish basic SPS Certification capacity.** The plan is expected to cost over \$5 million to implement, according to NDQB estimates. This includes a Short-Term Program entitled *Assistance to Strengthen the Services of the National Directorate of Quarantine and Biosecurity of Timor-Leste* and a Long-Term Program entitled *Assistance for Establishment of the National Laboratory of Quarantine and Capacity Building to Strengthen the Functions of the National Directorate of Quarantine and Biosecurity of Timor-Leste*. These documents contain most of the requirements noted above. It is important to acknowledge that NDQB needs to have full 'access' to the listed expertise, facilities, and equipment but not necessarily exclusive ownership or control over them in the short-term. In the short to medium-term, some expertise or facilities might be shared with or drawn from other units within MAFF or the public university system.

¹³³ Global developments in the pattern of 'animal, plant, and food safety standards' are summarized in: World Bank, *Food Safety and Agricultural Health Standards: Challenges and Opportunities for Developing Country Exports* (World Bank, Jan 2005).

¹³⁴ MAFF, *Candlenut Export to Indonesia* (Dili: MAFF, 2009).

¹³⁵ MAFF, *Cattle*.

¹³⁶ As an illustration of the degree of detail required, one can refer to the web-based ICON system developed by the AQIS at www.aqis.gov.au/icon32/asp/homecontent.asp. ICON is the Australian import conditions database. Other relevant information can be found on <http://www.daff.gov.au/animal-plant-health/plant>. The quarantine services of Singapore also have such a web site at www.ava.gov.sg/aboutAVA/overview.

9. **There are several challenges to developing and implementing an SPS system including:**

- **Resources** –The initial proposals by NDQB estimate around \$6 million for longer-term infrastructure, preparation of legislation, and capacity building support. In the short-term, the NDQB estimates that it will require around \$244,000 for basic facilities, capacity building, and immediate legislation. The costing is still being reviewed, and support will need to be properly coordinated among donors to avoid duplication. But in addition to this support, the government will also need to allocate sufficient budgetary resources for regular operating expenses.
- **Total exports** – The relatively limited volume of exports that currently require Phytosanitary Certification may explain the low share of budget to NDQB. The limited funds ear-marked for NDQB have been primarily focused on the inspection of *imports*, which are much higher. Therefore investment in NDQB has to be commensurate with the level and types of exports.
- **Seasonality and use of SPS capacity** – The quarantine services in other countries provide services for large volumes and year-round exports of a variety of commodities, whereas in Timor-Leste there is substantial seasonality for SPS services with the coffee harvest and exports mainly extending from May to December. This results in several months with minimum use of manpower, facilities, and equipment. Likewise, graduate degrees in pathology and entomology require many years of study, and these have not been preferred areas of study for Timorese students.
- **Timeframe** – Indonesia has asked that Timor-Leste's exports comply with standard ISPM Export Certification System and Guidelines for Phytosanitary Standards by the end of 2010. This timeframe is tight when acknowledging that most countries have had decades in which to gradually develop and expand their SPS capacity.

10. **In 2007, the DSP project commissioned a limited review of Timor-Leste's quarantine services, which confirmed some of the above challenges but also highlighted others.**¹³⁷ These included: (i) establishing the credibility and reputation of Timorese exports; and (ii) political commitment for the regulations and funding needed to establish the SPS system. One underlying concern was that even if NDQB is able to issue the appropriate Phytosanitary Inspection Certificates, exports may still be rejected because the quarantine services of importing countries need to inspect goods themselves. If insect or disease contamination is identified or some other condition does not meet expectations of the quarantine services, immediate action is required, whether: (i) special treatment; (ii) the goods re-exported (at importers' expense); or (iii) contents destroyed.

11. **Consequences of failures in the SPS system could result in the destruction of the cargo, high costs of delays in entry, or high costs for extremely detailed inspections.** Even one major incident with the certification process can adversely affect the *reputation of Timor-Leste's export certificates*. Meanwhile, the farmers would still be harvesting large volumes of export quality crops but without a high-end market in which to sell it at the anticipated high price. Previous experience indicates that any inspections by AQIS in Darwin would be very thorough.

12. **The risk of potential failures in the SPS system could arise for a variety of reasons, including if NDQB is not sufficiently prepared to identify all applicable pests and diseases and the import requirements for the end market.** This can be avoided if NDQB is made aware of the impending exports well in advance in order to identify all applicable pests and diseases as well as the import requirements for the end market. From another perspective, although the shipping company is responsible for providing its customers with a container with a very clean interior, in fact the customer must *re-clean the inside*. If anything unacceptable is found inside at an Australian port (regardless of

¹³⁷ At the time, the responsible authority was the 'Directorate of Quarantine Services,' which has been replaced by the NDQB in the MAFF. The NDQB is the responsible authority for issuing Phytosanitary Inspection Certification.

whether it was there from the beginning or loaded with the goods), this one problem causes an *alert* to be issued and will require that the *next six shipments* of those goods will receive *special AQIS attention*. In other words, given the hourly inspection fee charged in the Darwin port, the costs for AQIS inspection will increase substantially.

13. **Once issues with quarantine services are dealt with, there may be other issues to address relating to the trading community in importing countries.** For example, Singapore traders require special market entry linkages before an exporter can do business in their wholesale market. Likewise, Surabaya traders are said to ‘control’ the inflow of perishable commodities, thus the exporter also needs special connections in order to do business there. Payment arrangements must be assured in advance of deliveries. On the other hand, the Darwin-based importers/traders are more proactive and very interested in importing a range of priority vegetables, especially temperate vegetables. Darwin does not have access to temperate vegetables from high elevation tropical production areas any closer than Timor-Leste, and its vegetable retail prices are quite high in comparison to other options.

C. STRATEGY TO ADDRESS CHALLENGES

14. **Insights into the challenges noted above should become the basis for a SPS strategy for Timor-Leste.** Such a strategy needs to be designed in close consultation and collaboration with the leadership of NDQB/MAFF and with a ‘Donor Champion’ that the quarantine services can identify and recruit. Components of such a strategy which should be considered include:

- Single Donor Champion to help coordinate and build consensus around a coherent system uniquely suited to Timor-Leste’s circumstances;
- Timeframe for phasing the formation, implementation, and expansion of a quality quarantine service, including SPS capability;
- Feasibility for NDQB to progress from a joint institutional working arrangement to a stand alone, fully funded government agency; and
- Goal of achieving a dynamic and evolving agency that is linked to both the ‘world network’ of quarantine services and the evolving markets for agriculture exports from Timor-Leste.

15. **The strategy formulation process should be based on the present comparatively low volumes, limited overall value, and irregular (seasonal) timing of agricultural exports.** These may not warrant nor can they financially support the relatively expensive quarantine service fees of a *stand-alone* SPS certification scheme. Spreading costs over time and between institutions can be more realistic. A stand alone SPS certification capability is a relatively expensive system to institute, equip, manage, and continually update and modify given changes in the International Standards, additional trade protocols negotiated with other countries, and new commodities which the private sector may propose to export over time. The NDQB needs to join forces with a public organization (e.g. UNTL with an Agricultural Campus at Hera) to cover construction costs, jointly manage the use and maintenance of both the equipment and facilities, and source manpower. Such an organization would employ the pathologists and entomologists to teach students as well as provide inspection services to NDQB on part-time contracts. NDQB could recruit its management staff from this organization as exports expand over time and its mandate grows.

16. **This would require a practical and effective mechanism, unique to Timor-Leste for the indefinite, short term transition from limited agricultural exports to future larger scale exports.** Other points for consideration include measures to:

- Hire middle level managers who have an adequate academic education to quickly learn and adapt to the changing SPS requirements.

- Engage the services of experienced entomologists and pathologists with the expertise needed, yet not over-extend the operating costs by fully employing them during the early years while exports gradually expand.
- Find ways to fully utilize, maintain, and update the laboratory facilities and equipment throughout the year.
- Institute a process of regularly initiating trade protocol negotiations with nearby interested countries.
- Coordinate the identification of trade opportunities with on-the-ground, focused production initiatives, such as the coffee rehabilitation, Specialized Vegetable and Fruit Areas program, localized livestock feeding and raising initiatives, etc.
- Support and strengthen NDQB along with the enhanced productivity efforts and expansion of potential agricultural exports.
- Commission an annual market search for niche market opportunities throughout the region for new as well as currently exported commodities.

17. **As part of the strategy process, NDQB's SPS team should anticipate the repercussions for growers and traders within Timor-Leste, given a functioning SPS capability.** If everything works as planned, there will be expanded rural and urban employment opportunities, increased rural incomes, and stimulation and support for allied businesses, such as input stores, transporters, packaging companies, and shippers. *The key point regarding the implications of SPS for agricultural exports is the on-going requirement for some mechanism by which NDQB is kept well informed of agricultural export initiatives well in advance of their completion, whether with MAFF or private sector sponsorship.*

D. DONOR TA AND GOVERNMENT INITIATIVES, ESPECIALLY MAFF

18. **The exact form of TA by the development partners would emerge from decisions regarding the strategy noted above.** A few of the known activities within the current pipelines include:

- A field investigation scheduled for 2010 with NDQB staff and the participation of AQIS personnel to examine the full range of prevalent plant insects and diseases;
- Outfitting of an imported laboratory which will conduct tests of materials found from the field investigation noted above;
- Initial equipping of the MAFF laboratory facility within its complex in Comoro; and
- The formation of a SPS Consultative Group as a result of discussions instigated by the DTIS mission in November 2009.

19. **Indicative types of TA activities could include:**

- Evaluation of the costs and returns to an off-shore inspection capability in the immediate term (explanation noted below);
- Evaluation of the costs and returns for short-term employment of foreign technical expertise instead of Timorese personnel (i.e. entomologist and pathologist) to assist NDQB in issuing short-term Phytosanitary Inspection Certificates. Foreign technical experts needs to be considered to ensure effective knowledge transfer as well as on-the-job-training and extended exposure to using laboratory equipment for the local staff;
- Engineering expertise at a very practical level for detailed plans for each quarantine compound at each air, sea, and land exit point for inspecting exports and imports; and

- Training of capable NDQB staff as well as one or two academic staff from UNTL in Australia, Singapore, or Indonesia to gain exposure to the current quarantine/SPS standards and tests. Inclusion of the UNTL staff in this activity could ensure continuity in knowledge transfer since civil servants tend to change positions more frequently.

20. **Issues which the MAFF should carefully review:**

- Should export inspection services be for **free or fee-based**? The MAFF needs to determine whether the SPS service should be provided for free to exporters in order to further stimulate export businesses or whether exporters always need to ‘pay for service’ (at what level?), which may impose high costs to export growth. Although Australia currently applies a fee for such services, several other countries do not. Given other constraints to Timorese exports, in the short to medium-term, it might be appropriate to provide free export inspection services.
- Should Timor-Leste attempt to negotiate with Australia/Indonesia/Singapore an **off-shore inspection (pre-clearance)** capability in Dili in the immediate term so that questionable exports can be sold in the local market if they do not meet export expectations for their country of destination?
 - *In the case of Australia*, previous enquiries indicated that for AQIS support: “.. *off-shore inspection service would be at the expense of the exporter. However, they currently have a somewhat similar service with the Australian military in Dili at this time (inspection of equipment, etc. being shipped back to Australia). As a result, something might be worked out. Australia has such arrangements in the U.S.A, New Zealand, and China. It is a government arrangement based on certain conditions. It is usually requested by the export industry.*”¹³⁸
 - Regarding the constraint that a Phytosanitary Certificate cannot be issued in Timor-Leste at this point in time, an AQIS official mentioned that AQIS would have to think of another form of documentation. This would need to be carefully considered in Canberra.¹³⁹
 - *Biosecurity Australia (BA) will recommend Import Permits for certain commodities. It will conduct Risk Assessments per commodity which would take years to complete, especially for high risk commodities such as fresh food. It is very important for the Timor-Leste government to submit a prioritized list of potential export commodities to the quarantine service as soon as possible if exports are envisioned. Import Permits are feasible for snow peas, but they may not be for other items.*
 - *If a fresh commodity has to be submitted for a new ‘Pest Risk Assessment,’ then an alternative approach would be to process that item, such as freezing it, thus killing any harmful elements.*
- Determine and evaluate what mechanisms MAFF can utilize for determining each year a practical and realistic priority list of potential agricultural export commodities in addition to those with a history of exports. This mechanism will require the active participation of the private sector and donors with projects such as initiatives in greenhouse technologies.

¹³⁸ Pre-conditions for this regular off-shore inspection and pre-clearance procedure included the following criteria at that time: (i) Minimum of at least 4 full inspections per day (1 to 2 inspections would not be worthwhile). Those inspections normally include 600 or so samples from 6 to 8 containers; (ii) Service fees are usually paid by the exporting country or sometimes by Australian importers, such as the case of Australian importers of US citrus. Normal charges are \$9,000 monthly, \$2,400 weekly, and \$714 daily; and (iii) Other documentation is still needed, such as Phytosanitary Certificate.

¹³⁹ The same AQIS official noted that a ‘Pest Risk Analysis/Assessment’ has already been done for snow peas. Based on that assessment, AQIS would not allow ‘mature peas’ in the shipment because those peas could be sold as seed material and be planted in Australia later (potential for pathology problems).

- Determine and commission, in addition to NDQB, an institution to develop detailed listings and identification procedures for the full range of insects, diseases, and weeds (for plants and animals) originally present in or introduced into Timor-Leste. This institution will provide the back-up option in case of future riots or natural disasters which might affect the MAFF facilities.

E. CONCLUSION AND RECOMMENDATIONS

21. **Though SPS has not restricted exports to date, this has become an urgent issue for exports from Timor-Leste, particularly for trade with Indonesia.** A number of key challenges in developing and implementing a SPS system have been highlighted, including financial resources, the current volume of exports, seasonality and use of SPS capacity, pressures around timeframe, and the time required to establish reputation and credibility of the SPS system. There is a clear need for Timor-Leste to formulate a strategy around SPS and organize stakeholders.

22. **Recommendations for building SPS capacity and systems include:**

- (a) Form a SPS Consultative Group and identify a donor partner to be the champion for the NDQB quarantine systems and services and co-chair (along with the Secretary of State for Livestock) for the SPS Consultative Group. The SPS Consultative Group would propose, review, and coordinate all the varied sources of financial and technical support for the short and medium-term development of the quarantine services, including SPS capabilities.
- (b) Develop a strategy to build SPS capacity in a systematic and coherent way such that each additional component contributes to and does not conflict with previous components and strategies. Considerations for the strategy include timeframes, institutional arrangement, and sustainability of the SPS system.
- (c) Evaluate the cost and returns of short-term options such as (i) an off-shore inspection capability in the immediate term; and/or (ii) short-term employment of foreign technical expertise (i.e. entomologist and pathologist) to assist NDQB Phytosanitary Inspection Certificates in the immediate term.
- (d) Develop detailed plans for each quarantine compound at each air, sea, and land exit points for inspecting exports and imports.
- (e) Build capacity of NDQB staff and academia from UNTL in current quarantine/SPS standards and tests.

**SECTION III:
CROSS-CUTTING CONSTRAINTS TO EXPORT COMPETITIVENESS**

CHAPTER 7: ADDRESSING SKILLS DEFICITS, TRAINING, AND LABOR MARKET CHALLENGES

A. INTRODUCTION

1. **The nature and dimensions of the skills gap pose a potentially binding constraint and threat to the growth and export competitiveness of Timor-Leste's economy.** In the agriculture sector, the most significant and immediate underlying constraint to the sustainable development of the commodities identified in Chapters 4 and 5 (coffee, cattle, mungbeans, and horticulture) is limited farmer production skills.¹⁴⁰ This problem is exacerbated by weaknesses in Timor's agricultural extension service. There is very little chance of developing these agriculture subsectors into profitable export and import replacement businesses unless skills and experience are built at two key levels—farmers and extension workers.

2. **Gaps also penetrate other areas from high level professional occupations to middle and lower level occupations.** *Thus, the labor market is characterized by a large and growing excess supply of unskilled labor, and a large demand for a skilled and experienced national workforce.* These challenges in the labor market are further compounded by the high cost of labor in Timor-Leste. In the short-term, many of these gaps can only be filled by a large cadre of expatriate labor, drawn into both the public and private sectors. There is, however, a need to build local capacities and encourage skills transfer in order to substitute imported labor in the long-run (See Annex 7.1 for details on the structure of employment).

B. NATURE AND IMPACT OF THE SKILLS GAP

3. **The lack of skills and knowledge is particularly glaring in the agriculture sector, and the most pressing issue is to increase crop and livestock productivity across the nation.**¹⁴¹ The demand for other skills affecting the agriculture sector (including skills required for moving up the value chain or for addressing business environment issues such as access to finance) are secondary and will not generate a significant impact on the growth of agricultural exports until progress has been made towards building the capacity of farmers to increase yields. The agricultural skills gap threatens to constrain productivity growth through two channels: (i) smallholder farmers lack basic education and the technical know-how to increase crop yields and livestock production; and (ii) MAFF's newly created '*Extension Service*,' which employs 400 Suco Extension Officers (SEOs), lacks the skills and experience to service Timor-Leste's 166,000 rural households efficiently and effectively.

4. **In the rural sectors, skills training often occurs at home, on the farm, and/or in the village from older members of the family and community.** Hence, the quality of this type of skills transfer depends largely on the initial skills and knowledge levels of family and community members, which is likely to be limited. A World Bank Policy Note produced in January 2010 found that "rural households generally lack the technical, management, and crop storage skills which allow them to take advantage of improved crop and livestock production packages, many of which are available, proven and ready for widespread extension."¹⁴² Both pre- and post-harvest crop losses are high, with farmers losing up to 33 percent of their crop. In addition, agro-processing technologies are typically outdated and inefficient, preventing the rural sector from evolving into a more commercially oriented sector.¹⁴³

¹⁴⁰ Young, 13.

¹⁴¹ Refer to Chapter 4 for a cross-country comparison of crop yields. Across all crops Timor-Leste only produces between 20 to 35 percent of the production (Mt/ha) achieved by Cambodia, Thailand, China, Vietnam, Indonesia and Laos PDR.

¹⁴² Young, 13.

¹⁴³ Young, 12.

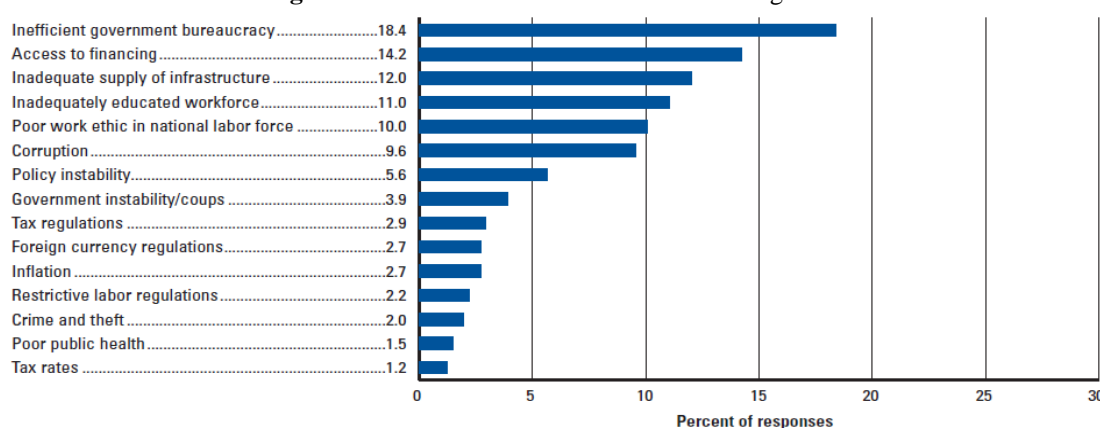
5. **At the same time, although the SEOs have received some pre-service training from GTZ and are working with rural development donors, they are severely constrained by inadequate operational, training, and demonstration budgets.** The forthcoming RDP IV and Seeds of Life III projects include extensive capacity building activities and operational budget support for these key staff, but there remains an urgent need for MAFF to convince the MoF that a much larger annual budget is needed if these staff are to be effective in terms of increasing agricultural production. Fortunately, some of the small scale donor financed demonstration projects are showing great promise in addressing the skills gap in the agriculture sector (for both farmers and SEOs) and can potentially be replicated nationwide for coffee, horticulture, other crops, and livestock.

6. The World Bank¹⁴⁴ (using adjusted Commodity Profiles prepared by the MAFF) and Seeds of Life Phase III design data¹⁴⁵ have analyzed the likely impact on rural household income from the adoption of improved production technologies for the country's main agricultural commodities, including coffee, cattle and peanuts (the latter, equivalent to mungbeans). These technologies are based on adaptive research by projects such as Seeds of Life Phases I and II, RDP II (GTZ), CCT (USAID-supported) and Portuguese support for the coffee subsector, followed by wide-spread on-farm testing under local production conditions and input supply situations.

7. **In summary, Timor-Leste has a wide range of improved crop and livestock production packages which are ready for nationwide adoption, provided the technologies can be extended to farmers and markets developed.** For example, if coffee farmers adopt the improved technology recommended by CCT and Portuguese Aid on 1.0 ha of plantation, gross margins could increase from about \$120/ha to as high as \$800/ha, with an average increase of about \$500/ha; and returns per labor day would increase from about \$3.70 to \$5.90. If a family fattened 2 heads of cattle per year, their net farm income would increase by \$280 per year. The corresponding figures for 0.50 ha of peanuts (or mungbeans) would be an incremental household gross margin of \$340 per year and returns per labor day of \$5.90.

8. **Aside from the skills gap in the agriculture sector, the lack of adequate skills is a problem which exists across the board.** According to the Global Competitiveness Report, business respondents identified the 'inadequately educated workforce' and 'poor work ethic in the national labor force' among the top five constraints for doing business from a list of 15 factors (Figure 7.1). Skills and education factors are considered to be more problematic than factors such as corruption, policy instability, and government instability.

Figure 7.1: Most Problematic Factors for Doing Business¹⁴⁶



Note: From a list of 15 factors, respondents were asked to select the five most problematic for doing business in their country/economy and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

¹⁴⁴ Phillip Young, *Raising Agricultural Productivity: Issues and Options* (Timor-Leste: World Bank, Jan 2009).

¹⁴⁵ Production and financial models prepared during the design of Phase III – not yet published.

¹⁴⁶ World Economic Forum, *The Global Competitiveness Report 2009-2010* (WEF, 2009).

9. **The number of foreign workers in different kinds of occupations and sectors can be used as a proxy for the scale of the skills gap in Timor-Leste.** While the 2004 Census does not disaggregate between local and foreign workers,¹⁴⁷ this data should be available through the new Labor Force Survey, which records the citizenship of respondents. There is some information available on the number of foreigners in the construction, hospitality, and tourism sectors. According to a nationwide survey in October/November 2008, the permanent and temporary employees in these sectors were roughly equivalent to one fifth of Timor-Leste's non-agricultural private sector labor force. One in ten of the permanent construction workforce was foreign as were just over one in twenty permanent workers in the hospitality sector.¹⁴⁸

10. **In this context, the presence of expatriate labor has been essential for addressing Timor-Leste's skill problems and has been a commendable policy response from the government.** While the presence of expatriate labor is essential for the immediate future, there is still a need to design and implement programs and policies that encourage foreign-owned and domestic firms employing expatriates to transfer skills to the local workers (see below for further discussion).

11. **The lack of adequate skills in the workforce is not only apparent through the import of skilled foreign labor but also in how urban employers reported that half of all workers were fully proficient in their core competencies in their jobs.**¹⁴⁹ This is based on a survey of urban enterprises in Timor-Leste which considered the full spectrum of employment categories (excluding managerial positions). The survey concluded that most employees lacked basic language proficiency (Portuguese/English), customer service skills, and administrative and financial skills. Perhaps the most frequent plea by employers and others is the gap in basic skills such as “*leadership, motivation, initiative, punctuality, honesty, management of money, numeracy, and literacy.*”

12. **The deficiency in basic skills can be attributed to poor performance in the education sector, particularly primary education.** Previous World Bank¹⁵⁰ research has shown that the rate of return to primary education is highest. Good ‘basic education’ is critical for ensuring employability and trainability of potential job market entrants and for success in higher levels of education.

13. **Even in the construction sector, which is the most dynamic sector in the economy, experienced local workers are in very short supply.** According to the survey of the construction and hospitality sectors, occupations typically filled by foreigners include engineers, cooks, skilled workers in construction (carpenters, plumbers, masons, welders, and mechanics), and on-the-job trainers.¹⁵¹ The list of priority skills identified by employers in the two sectors placed the high-level technical skills of engineer, architect, and draftsman at the top. The bottom of the list included security guards, interpreters for Bahasa, and drivers in the hospitality sector.

14. **In addition to the need for sector specific skills, capacity also needs to be developed to create an efficient, enabling business environment** (see Chapter 9, Section B on business registration and licensing). The dearth of capacity in professions that support business and commerce is evident in the accountancy, finance, auditing, and legal professions, which are heavily dependent on expatriate labor. For example, while there is a lawyer's association in Timor-Leste, there is no formal bar association. There are reportedly three international law firms in Timor-Leste and no private notaries. All notarizations are performed by the MoJ but capacity is quite low.

¹⁴⁷ While the Census questionnaire asked for ‘Place of Birth,’ it did not ask for the citizenship of the respondent. As a result, it was not possible to identify which respondents were foreigners, and the Statistics Office has not produced any other employment data which disaggregates between local and foreign workers.

¹⁴⁸ Richard Curtain, *Skills in Demand: Identifying the Skill Needs of Enterprises in Construction and Hospitality in Timor-Leste* (Feb 2009).

¹⁴⁹ Maitreyi Bordia Das and Philip O’Keefe, *Enterprises, workers, and skills in Urban Timor-Leste*, World Bank Policy Research Working Paper 4177 (Mar 2007).

¹⁵⁰ For example, George Psacharopoulos, *Economics of Education: Research and Studies* (Oxford: Pergamon Press, 1987).

¹⁵¹ Curtain.

15. **The area where there is significant structural weakness is the professions of accounting, audit, and finance.** Only three independent private accountants operate in Timor-Leste, with other services provided by government and private foreign companies. There is no professional association of accountants. New enterprises in Timor-Leste face the challenge of effective financial management, and most small companies do not produce financial statements. If they do, they are not in line with International Accounting Standards (IAS) or International Financial Reporting Standards (IFRS). In the area of business professions, the development of professional associations is important, as is capacity building in the government to regulate and supervise where appropriate.

16. **There is also a lack of entrepreneurial skills which is linked to the generally weak business culture and other cultural aspects.** Historically, with a few exceptions, there has not been a strong business culture in Timor-Leste. These obstacles to private sector development are compounded by other cultural factors including family responsibilities that sometimes undermine potential entrepreneurs and puts pressures on business owners and those in formal employment to share their good fortune. Moreover, agricultural subsistence activities are often not conducive to nurturing an entrepreneurial spirit, especially given that the bulk of the labor force operates in a non-cash rural economy and/or are involved in informal income earning activities.

The Skills Gap and Gender Issues

17. **Women in particular are affected by the skills gap.** They are constrained by lower literacy rates than men, and they are also more likely to drop out at pre-secondary and higher levels of education. Although no gender disparities exist in primary school enrollment, the number of male graduates is twice that of female graduates at the secondary level and three times more than females at the tertiary level.¹⁵² Even more concerning is the low literacy rates among females, with 63 percent of females aged 20 and above being illiterate as compared to 48 percent among men.¹⁵³

18. **In addition to the lack of literacy and numeracy skills, Timorese women tend to also have very limited business skills.**¹⁵⁴ Business and technical skills training and networking activities for women are relatively rare.¹⁵⁵ Where business development services and training do exist, they often do not adequately consider the needs of women including those operating in micro and small enterprises.¹⁵⁶ As a result, access to information is primarily dependent on male family members, thereby reinforcing traditional gender notions that women are less capable than men.¹⁵⁷ In a survey of staff and officials from MAFF, respondents noted that when women participate in agricultural development programs, they were largely dependent on men to make important decisions about the choice of seeds, fertilizers, credit, services, and technologies.¹⁵⁸ In terms of business networking, there is a small Women's Business Association of 15 women based in Dili, and female attendance in the Better Business Initiative's Working Group meetings has been strong. However, no formal national private sector platform exists to represent the business interests of women in Timor-Leste.¹⁵⁹

19. **Low literacy, numeracy, and education, coupled with insufficient trainings and limited access to information, directly impact women's ability to engage in trade-related activities.** According to a USAID project on Candlenut Oil Processing, low levels of literacy and numeracy make it difficult for women to negotiate with buyers and oversee the management of processing

¹⁵² MED, "Gender Equality."

¹⁵³ Census Table 5.2.

¹⁵⁴ UNIFEM/UNDP, *Concept Note & TOR for Mapping of Women's Economic Empowerment Programmes* (Dili: UNIFEM, 2010).

¹⁵⁵ Hedditch *Timor-Leste* ix.

¹⁵⁶ WISE, *Women In Self-Employment Final Report* (Joint Publication of SEFOPE, SEPI, MED, UNDP, and ILO, 2010).

¹⁵⁷ GOTL, SEFOPE, *Gender Dimensions in Vocational Training* (2008).

¹⁵⁸ MAFF, *Assessment of Gender Mainstreaming in the MAFF* (Dili: MAFF, 2007).

¹⁵⁹ Hedditch *Timor-Leste* 17.

facilities.¹⁶⁰ Likewise, navigating through the complex business registration requirements is also more difficult for women than their male counterparts because of their lower levels of literacy. This may be one reason for limited female ownership of formal enterprises, and it also suggests the need to clarify the rules around registration, particularly the differences and benefits around different types of business entities.¹⁶¹

C. MEASURES TO ADDRESS THE SKILLS GAP

Agricultural Extension Services

20. **Prior to Independence, Timor-Leste's rural sector was serviced with a 'traditional' Indonesian agricultural extension service.** This was based on the assignment of 700 field workers operating across the 13 districts, 65 sub-districts, and 442 *sucos* and the delivery of a range of mostly centrally-planned services, which included technical advice, demonstrations, free inputs (seed, fertilizer, pesticides, herbicides and seedlings), and marketing support. The extension officers were supported with a hierarchical subject matter and extension specialist system from the sub-districts through to the districts and Dili. Whilst tightly structured (the extension officers told farmers what to grow, how to grow, etc.) the system achieved good results in terms of the introduction of new crops and increased production from existing crops. Many of the remaining plantations (a variety of fruit trees, cashews, coconuts, etc.) were established during Indonesian times. In addition, much of the irrigation infrastructure which has been repaired post-Independence under donor-supported¹⁶² and GOTL programs was originally constructed during the period of Indonesian rule.

21. **One of the main legacies of the traditional service which has caused problems since 2000 is the farmer 'dependency and handout' syndrome.** Farmers grew used to being provided with crop production inputs free of charge and therefore expected this to continue.

22. **Post-Independence the international donor community and government debated the options for the provision of agricultural services and inputs, and a decision was taken to support the development of a private agricultural extension sector.** The private sector was to take responsibility for the provision of technical advice and inputs to farmers with assistance from NGOs. This policy was reflected in the design of the three Agricultural Rehabilitation Projects (ARPs) which were implemented by MAFF with support from direct-hire TA. The ARPs also set out to establish and support the development and operation of Agricultural Services Centers.

23. **Neither of these initiatives was successful¹⁶³ and after further analysis of the options for the provision of agricultural extension services to Timor-Leste's 167,000 rural households, MAFF decided on a public sector funded agricultural extension service.** The private agricultural extension sector was unsatisfactory because coverage by NGOs was uneven in both spread and quality, and whilst donors were willing partners with MAFF, they had a limited focus and insufficient resources for a nationwide program. Private sector technical and extension services had not developed even for the few commercial commodities with market access (e.g. coffee) with the possible exception of the village livestock workers. MAFF's response has been to place one SEO in each of the 400 rural *sucos*. This will not provide the depth of coverage achieved by the Indonesian system but will be compensated for in part by the closer cultural fit of the new extension workers who will be more familiar than outsiders with the local farming systems, languages, and cultural features of their *sucos*.

¹⁶⁰ DevTech Systems, Inc., *Community & Gender Aspects of a Proposed Candlenut Oil Processing Facility in Timor-Leste* (USAID, Mar 2005).

¹⁶¹ Hedditch *Timor-Leste*.

¹⁶² Mainly JICA and the World Bank/EC-supported ARPs, with other donors assisting on a district by district basis.

¹⁶³ ICM (TF050151), The World Bank, Rural Development and Natural Resources Sector Unit, Timor Leste Country Office, June 27th, 2005.

24. **The current status of Timor-Leste's agricultural extension services can best be described as fledgling but large – numerous staff have been assigned at various levels but there remain significant technical and organizational constraints which hinder MAFF's ability to deliver effective services to farmers.**¹⁶⁴ Moreover, ongoing capacity building of field-level officers and middle-level subject matter specialists is often technically inappropriate and ineffective. And there is a danger that future centralized training programs will develop a blanket approach to technology transfer irrespective of local potential and the specific demands of local producers.

25. **Extension skills are just one part of the equation – the missing part which is currently impacting just as severely as technical and organizational skills is the lack of government funding.** Four hundred new SEOs need support in the form of: (i) adequate per-service training (one month of class-room type training in technical subjects is inadequate); (ii) on-going in-service training (some is provided by cooperating development partners but MAFF does not have the resources to provide on-going technical support for the SEOs); and (iii) operational budget for field days, demonstrations, training materials, technical handouts, etc. The other major deficiency in agricultural extension services is that, apart from the Seeds of Life Program, there is virtually no investment in adaptive research on Timor-Leste's major agricultural products. Results from such programs are essential for the ongoing development of national crop and livestock production programs.

26. **In December 2008, the World Bank-managed ARP III assisted MAFF in preparing a draft policy framework for agricultural extension.**¹⁶⁵ The draft framework stresses: (i) attaining and maintaining technical proficiency in agricultural extension and extension methods; (ii) achieving scale coverage and equity; (iii) achieving balance in extension programs and priorities; (iv) coordination of extension services; and (v) administration, accountability, and evaluation of extension outcomes. The policy focuses on a farmer-centered, problem solving, participative approach which is fully consistent with adult learning principles and is quite distinct from the traditional technology transfer model of extension. The policy document confirms that there is very limited expertise within MAFF in these modern approaches to extension for either training or mentoring purposes. In order to fill this gap and build local expertise, MAFF will need to partner strategically with donors and NGOs that have strong extension and adaptive research expertise and experience under Timorese conditions.

27. **A recent national workshop**¹⁶⁶ **concluded that the key challenges in the present extension system are:** (i) the absence of an agricultural extension strategy to articulate the extension needs of uplands *vis a vis* lowlands and subsistence *vis a vis* commercial farming, based on production and marketing constraints and potential; (ii) different strategies, technologies, and subsidy practices currently used by MAFF, development partners, and NGOs which is confusing target beneficiaries – these need to be harmonized and standardized; (iii) lack of adequate experience, skills, and exposure to innovative technology transfer techniques for most extension workers; (iv) lack of transportation limiting extension workers' mobility, outreach, and effectiveness; and (v) lack of resources to support farmers, e.g. seeds, tools, training materials, and facilities.

28. **The World Bank has recommended an Agricultural Productivity Improvement Program (APIP) to MAFF.**¹⁶⁷ This nationwide commodity focused program is based on the operationalization of the *Policy Framework for Agricultural Extension in Timor-Leste*. Whilst APIP is still in the concept stage, the EC's forthcoming Rural Development Project Phase IV (RDP IV) has adopted many of APIP's design features. Therefore, it seems that international support for agricultural extension in Timor-Leste is in the pipeline, provided that RDP IV evolves into a national program and GOTL allocates adequate operational funds as part of their contribution.

¹⁶⁴ World Bank, Implementation Completion and Results Reports: Third Agriculture Rehabilitation Project (World Bank, 07 May 2010).

¹⁶⁵ Bryan Gorrard, *Policy Framework for Agricultural Extension in Timor Leste* (Timor-Leste: World Bank, Dec 2008).

¹⁶⁶ November 2009 - MAFF and GTZ organized a national workshop in collaboration with six international NGOs on "strategic strengthening of extension delivery in Timor-Leste".

¹⁶⁷ Young.

29. **There are also a number of other donor-supported rural development programs which are already providing training and capacity building activities for farming households and the SEOs.** This includes support from Portuguese Aid to the coffee and farm-forestry subsectors, FAO and NZAID for on-farm food grain storage, and numerous national and international NGOs. These projects and programs have made good progress in small geographic areas and identified and tested productivity improvement technologies. However, there is now a need for a well-coordinated nationwide agricultural extension and supportive adaptive research program which builds on the proven pilots and releases the inherent potential of Timor-Leste's rural sector. This task should be undertaken by MAFF with support from MOF as considerable incremental annual budget will be required (about \$5.0 million per year over and above MAFF's current operating budget).

30. **In summary, the main elements of a national agricultural extension service have been developed, but some more work is needed to make the system fully operational and effective.** MAFF and its donor partners agree that the most important need of the agricultural sector is capacity building of agricultural support service providers, i.e. public and private sector education institutions, research and extension agencies, animal health services, input suppliers, and post-harvest handling, processing, and marketing organizations, particularly now that 400 SEOs have been appointed and assigned. It will take considerable donor support and substantial GOTL investment for Timor-Leste's agricultural extension systems to be effective and therefore impact on rural production and incomes. There is also a need for the draft Policy Framework for Agricultural Extension to be finalized by MAFF and promulgated by GOTL to guide agricultural support service providers in adaptive research and the delivery of improved and new technologies to Timor-Leste's impoverished farmers.

Vocation Education and Training (VET) Programs

31. **A 2007 review of vocational training by the Secretariat of State for the Vocational Training and Employment (SEFOPE) suggests that VET is not adequately addressing the skills gaps.** The study focuses only on providers registered with the National Division of Vocational Training (DNFP). The study finds that many of the courses in the 39 vocational training providers and 12 technical secondary schools that were surveyed do not sufficiently equip trainees for the labor market because of: low levels of education for many of those entering vocational training; the short duration of courses coupled with weak links to the labor market; the lack of standard qualifications for training institutions; and variable qualifications and experience of training staff.

32. **The range of vocational courses is also narrow, and the review finds that more than half of the trainees were taking language, IT, or office administration courses.** Only 17 percent of trainees were engaged in livelihood and agriculture courses and another 17 percent in technical trades. In general, vocational courses on offer at the different institutions are limited to basic trades (such as electrical, plumbing, and basic construction), and sectors such as tourism/hospitality, mining, petroleum, and agribusiness are often neglected. The review found no training courses in telecommunications, road maintenance, rural water supply and sanitation, transport, and the oil and gas industry. Only just over one in three of the permanent workforce of construction enterprises and one in five of the permanent workforce of hotels, restaurants, cafes, and tourist facilities had recruited workers from local training institutions.¹⁶⁸

33. **Formal VET is concentrated in Dili, with limited training activities aside from agricultural trainings happening in surrounding districts.** Some institutions have been offering subsidized accommodation on campus to encourage non-Dili based students to relocate for training purposes, and others offer meals and a per diem allowance. This, however, is becoming unsustainable in some cases.

¹⁶⁸ Curtain.

34. **To try and address these shortcomings, productive sector working groups were started in 2008.** These groups include trainers, employers, and worker organizations relevant to the productive sector, and they attempt to promote greater partnerships and the identification of skills required for specific jobs.

35. **However, one of the key constraints identified by the National Labor Force Development Institute (INDMO) and other programs is the lack of qualified trainers.** Some potential trainers have been taken out of their institutional employment for short periods and sent overseas to Australia, Malaysia, and Indonesia to build their technical knowledge and enhance their industrial experience. Because there is such a small pool of potential trainee material with the appropriate educational background, the impact will be small at first and will only come to fruition as a larger quota of trainers is developed. The process will be time consuming. *One potential strategy to overcome some of the problems would be to bring in skilled expatriates from overseas for short and longer term periods to train the trainers.*

36. **With the assistance of the ILO, the INDMO initiative was established by the GOTL in 2008 to strengthen the VET system.** The INDMO is a partnership between the government, employers, worker organizations, and vocational training institutions with the objective of ensuring a strong, relevant, and good quality vocational training system. The INDMO is an autonomous, public institution under the auspice of the SEFOPE. *The government has also demonstrated its commitment to skills development and building the training system by approving the National Vocational Training Policy and nominating Human Resource Development as the overarching priority for the 2010 and 2011 National Priorities.*

37. **More specifically, the mandate of INDMO includes:**

- Offering training in the industries and skill areas that are needed in the labor market now and in the future;
- Approving competency standards determined by the relevant industry sector for the jobs in that sector;
- Recognizing qualifications that are required by industry; and
- Registering and certifying vocational training providers that are of good quality and have trainers with the qualifications to deliver and assess the competency standards.

38. **Within this mandate, INDMO has ambitions to upgrade the capacity of institutions and expand the scope of trainings into areas such as hospitality, administration and finance, and agriculture.** While efforts are being made to place apprentices in industrial workshops, more must be done in this field. The INDMO has not yet addressed the agricultural and engineering sectors but plan to expand into these areas. Although the oil and gas sectors demand highly trained technical staff, there is scope for a newly trained Timorese labor force to work on the oil rigs.

39. **To facilitate INDMO's mandate, an Employment and Vocational Training Fund has been established to finance activities contributing to employment promotion and vocational training.** VET providers and technical schools can apply for financial support in order for trainees to experience work placements for a maximum of two months. In addition, there is an internship program targeting unemployed youth who have finished secondary school. Interns gain three months of practical experience in the workplace. The third component of the fund targets graduates of VET and business management trainings and supports them for six months while attached to a business to enhance their skills and experience via supervised work. A further extension of this initiative could be undertaken depending on the results of the evaluation.

40. **In addition to the policy initiatives by the government, a number of international donor funded programs and NGOs are also supporting vocational training.** There have been a number

of business training programs with wide outreach through the Business Development Centers. A range of courses were offered starting from basic start-up entrepreneurship to financial management. The ILO has participated in this approach with its Start Your Business and Improve Your Business components under the Youth Employment Promotion Program. Externally funded programs have also provided ethics training linked to vocational schools. For example, the USAID-funded project Preparing Ourselves for Work is addressing some of these ‘life-skill’ problems amongst the low-skilled. The project focuses on rural areas and is geared towards school drop-outs. Over 2,500 low-skilled, rural-based youths in 9 districts are enrolled in the program of ‘work readiness’ (including money management, leadership, and punctuality), implemented by local NGOs. Other programs include GTZ’s Employment Promotion for Young People, Brazil’s Professional Training and Social Promotion as well as trainings provided by NGOs such as Oxfam and Concern.

41. **It is outside the scope of this study to make an assessment of donor funded programs and NGO trainings.** However, it is worth noting that some of the constraints highlighted by interviewees include the ad hoc basis of business training programs provided by NGOs; the lack of sufficient resources to ensure effective follow-up and sustainability of some training programs; the inability to gauge the needs of the local labor market in the absence of labor market information; poor resourcing of some NGOs to provide effective support; and difficulties in establishing tracer studies and other monitoring and evaluation systems.

On-the-Job Training

42. **Aside from vocational training at institutes and secondary schools, skills acquisition is also being undertaken on-the-job.** While the on-the-job training in private enterprises is largely undocumented, most business enterprises provide some training for their employees. According to the construction and hospitality survey mentioned above, over one in three enterprises in these sectors provided training for their workers in 2008, with most of the trainings being on-the-job. Three in ten enterprises knew what training they would provide in 2009. These findings suggest that business enterprises could be key sources of skills training with further encouragement from the government. Disappointingly, only one in six of the sampled businesses provided work placements, which is a fundamental way to promote skills formation. Where work placements were provided, they were only for a short duration, with half of the placements being for four weeks or less and with limited impact. Placements and on-the-job training are limited mainly due to the small size of the economy, and currently, there is also no national apprenticeship scheme operating in the country.¹⁶⁹

43. **Results from the construction and hospitality sectors suggest a willingness of employers to increase the quality of trainings and provide information about their skills needs.** Encouragingly, most surveyed employers supported the government’s new arrangements to lift the quality of skills training through INDMO. In response to a series of questions to gauge interest in the new training arrangements, the survey also found that over 8 out of 10 construction and hospitality enterprises expressed strong interest in learning more and in actively participating in ways to increase the quality of training. The survey also demonstrates that it is possible for the government, with modest resources, to seek information directly from enterprises about their skills and other needs. The study provided a tool to develop a priority skills profile, which can be used to seek employer ratings in other sectors of the economy.¹⁷⁰

¹⁶⁹ Curtain.

¹⁷⁰ Curtain.

Box 7.1: Informal On-the-Job Training

The mission met a construction workshop in Dili operated by an Indonesian citizen who has been in Timor-Leste since 1985. It undertakes the building of houses, offices, and metal work, often for the GOTL, NGOs, and private households. It employs 63 workers of various skill levels, 20 of whom are Indonesian nationals. 7 of these are highly skilled workers who oversee the local staff. The top rate of pay varies between \$200-300 per month, depending on skills and experience, with the lowest skilled earning \$150 per month. The business seems to have enough working capital for contracts under \$200,000 but demands an advance for those which exceed this amount. Contracts are often made verbally, while government contracts are written but often arrive after work has begun. The respondent had never had any form of bank loan, although he had enquired from ANZ and was told 'we don't give credit!' He had applied for a loan from a Portuguese bank but was refused because he had no formal contract for the work to be undertaken for the government.

The Indonesian workers arrive on tourist visas and begin work at the plant. After 5 months, the employer is entitled to apply for a work permit for them. In order to obtain a work permit, the employee has to be vetted by the urban village chief, examined by a doctor, and vetted by the police before seeking the approval of the Labor Department who passes the approval to the MFAC. The process can take up to one year. The Labor Department has been known to refuse the application without providing any reason. Once the work permit has been obtained, the employer does not face any additional problems in getting an extension for the expatriate worker.

He recruits local staff from the technical schools, as well as the Don Bosco training school, and the newcomers earn \$4 per day plus meals. He keeps no formal accounts and fills in a tax form once a year to satisfy the tax authorities.

While there is obvious skills transfer from the Indonesian workers to local staff, there is no recognition or certification of this. At the same time, there is no appreciation of the need to do so and no formal requirement that the expatriate worker should pass on his skills, ultimately to be replaced by a local. None of the local staff had left the employer to start up their own company.

This example shows that skills transfer is taking place in a very informal way. There is a need to acknowledge this and design incentives such that expatriate workers are assigned local counterparts who will pass on their skills. With such on-the-job training, local workers can eventually take over the jobs of the foreigners once they leave.

Foreign labor

44. **As previously mentioned, the import of foreign labor is an alternative channel being used to address the prevailing skills gaps.** The *Law on External Investment of 2005* sets the tone of the policy environment, and it recognizes that:

'the establishment of a legal framework that attracts and favors external investment in the country is of paramount importance to promote the development of natural and human resources, create jobs, and contribute towards the economic and social development of Timor-Leste.'

45. The *External Investment Law* goes on to specify that a foreign investor may employ expatriate workers under certain conditions, and during the first 5 years of its operations, the investor is entitled to a tax credit of \$300 for each Timorese permanently employed.

46. **According to the *Immigration and Asylum Law*, expatriate labor can be employed where it can be shown that no Timorese is available for the position.** Two problems have been highlighted with this approach: (i) the process of obtaining a working visa is often burdensome and can lead foreigners to work illegally; and (ii) there is no policy to ensure that the engagement of expatriate labor will raise the skills of the Timorese. SEFOPE has determined that the following professional activities are exclusively reserved for Timorese workers and prohibited for foreign workers: waiters and housekeeping in bars or restaurants; public transport drivers (exceptions for 8 wheels car and stevedores); receptionist; domestic helper; security for the house and public place;

cashier in commercial areas; shop waiters; logistics supervisor; labor assistant in all works (e.g. civil construction); cleaning service; parkman/park lady; and itinerant vendors.

47. **The problem of foreigners working illegally is recognized by the Migration Operational Group's 2009 report on visa processing.** According to the report, many foreigners enter Timor-Leste under a tourist visa and proceed to work illegally. These visa violations and overstays are sometimes detected during routine inspections, and illegal workers are either repatriated and/or fined. The report, however, also admits that such inspections are limited by the availability of resources.

48. With respect to work permits, the *Selected Articles from the Law 9/2003 of 15 October (Immigration and Asylum Law)* specifies the purpose and duration as follows:

- *A work permit is intended to authorize the bearer thereof to enter the national territory, on a temporary basis, to carry out a professional activity as an employee or independent worker.*
- *A work permit exclusively allows the bearer thereof to carry out the professional activity which he or she claimed for the granting of the visa.*
- *A work permit allows a length of stay of up to one year and is valid for one or multiple entries.*

49. Responsibility for enforcing this rests with the National Directorate for Labor Inspection, bearing in mind *“The need to promote the protection of Timorese work in National Territory; and the need to make a regulation promoting capability transfer from foreigner who is practicing professional activity in National Territory.”*

50. **At the same time, in order to better understand the professional activities of foreigners, SEFOPE has decided that:**

- Labor Inspection shall send Inspectors Officers to the companies' offices;
- Applicants will be interviewed;
- The Directors at Labor Inspection shall participate in the interview; and
- Companies and employers must comply and respect the *Timor-Leste Labor Code (No. 5/2002, 01/05/2008)* and *Immigration and Asylum Law (No. 9/2003, 15 October)*.

51. **To address the issues of illegal foreign workers and the need for measures to ensure skills transfers to Timorese counterparts, a ‘Visas Working Group’ has also been established.** The group is working on a proposal to establish a ‘one-stop-shop’ to obtain work visas and to incorporate a training provision in a revised labor law. One of the key challenges lies in determining how and if such a transfer is taking place.

D. SKILLS GAP, LOW PRODUCTIVITY, AND HIGH COSTS

52. **High and rising labor costs compared to neighboring countries affects the competitiveness of exports.** Monthly wages are relatively high compared to the minimum monthly wages in Indonesia and Vietnam. When compared to Thailand, China, and the Philippines, Timor-Leste's monthly wage is within the minimum monthly wage range of these countries (see Annex 7.2). However, productivity in Timor-Leste is also much lower than these countries. Even when looking at government wages and salaries in Southeast Asia, Timor-Leste has the highest average pay rate by regional standards, and this rate has been increasing over time. This, in turn, places upward pressure on private wages. With labor as the country's main non-tradable, the progressive increase in wages provides a disincentive for investing in the tradable sector. This is further compounded by the fact that much of the existing domestic labor supply is unskilled.

53. **Despite high wages, productivity is also low in Timor-Leste, largely due to skills issues discussed above.** When examining the extent to which pay is related to productivity, the Global Competitiveness Report indicates that Timor-Leste ranks among the worse 20 countries out of 133. Philippines is the only other Southeast Asian country with a relatively low ranking at 74, but even so, its link between pay and productivity is stronger than 45 percent of the countries surveyed. Vietnam, Malaysia, and Indonesia rank among the top 30 in terms of the relationship between pay and productivity.

E. CONCLUSION AND RECOMMENDATIONS

54. **Limited farmer production skills are significant constraints to transforming agriculture subsectors into commercially oriented export and import replacement businesses.** This requires building skills at both the level of farmers and the SEOs employed by MAFF's new extension service. Beyond agriculture, there are limitations across the range of skills in the public and private sector. A number of channels are being used to address these issues, including the import of foreign labor, VET, and on-the-job training.

55. **Recommendations related to the skills gaps include:**

- (a) Build on support to be provided under RDP IV and Seeds of Life III to improve the newly created agricultural extension service. Finalize and implement the extension and adaptive research policy framework prepared for MAFF 2008 and increase budget resources to agricultural research and extension.¹⁷¹
- (b) Institutionalize the transfer of skills from expatriate labor to Timorese counterparts, including through the design and implementation of incentives for employers and the drafting of appropriate Labor codes.
- (c) Generate regular, reliable labor market data in order to better understand the scope of the skills gaps, better link training programs to market demand, and identify occupations and sectors that offer scope for substituting foreign labor with future local talent.
- (d) Support the expansion of training in current and future export growth areas of agribusiness, horticulture, fisheries, tourism, and hotel management.
- (e) Develop and support efforts to improve the VET system, including initiatives to improve the professional development of trainers, establish and implement the National Qualifications Framework, ensure that INDMO has the financial and human resources to fulfill its mandate, and conduct tracer studies to feed into curriculum development.
- (f) Raise quality and efficiency in the education system at all levels, particularly in the post-primary levels for the rural population and for the poor, especially in urban areas. Also, tackle the problem of late starters, repeaters, and interruptions.

¹⁷¹ GOTL should follow the international recommendation to invest 10% of agricultural GDP in agricultural research and extension every year. (Shenggen Fan, *Halving Hunger: Meeting the First Millennium Development Goal through "Business as Unusual"* (Washington D.C.: International Food Policy Research Institute, June 2010).) For Timor-Leste this would amount to an annual allocation of about \$25 million in research and extension, compared with the current allocation of about \$5 million.

CHAPTER 8: ADDRESSING PROPERTY RIGHTS AND ACCESS TO LAND

A. INTRODUCTION¹⁷²

1. **The rural economy in Timor-Leste remains overwhelmingly at the subsistence level and the great majority of rural landholdings (around 97 percent) remain under customary tenure.** There have been few examples of private sector investment in agricultural intensification. Land held under ‘customary tenure’ is land that has (usually) never been titled in accordance with state administrative processes. Ownership and use rights over such land are typically regulated by customary (or traditional) authority structures.

2. **Furthermore, the country has no functioning system of formal property rights able to facilitate investment, particularly in rural areas.** In terms of registering property, Timor-Leste ranks 183 out of 183 countries surveyed in the World Bank’s 2010 Doing Business Report.¹⁷³ While the land and property department can issue a no objection letter when someone requests proof of ownership, this merely states that to the best of the registry’s knowledge, the person’s claim over the property is not wrong. The department conducts an on-site inspection and verifies the claim with neighbors before issuing the letter. However, the no objection letter does not replace a property title.¹⁷⁴

B. LAND AND RURAL DEVELOPMENT CHALLENGES AND OPPORTUNITIES

3. **In Timor-Leste, land, rural development, and present-day export performance challenges are historically linked to the subsistence economy of the territory during the Portuguese and Indonesian periods.** This is reflected in figures indicating that at the very end of the Indonesian period, the Province of *Timor Timur* was the least urbanized of all Indonesian provinces.¹⁷⁵ Furthermore, with 414 of its 442 villages considered underdeveloped in 1995, the territory was considered among the least developed regions in the archipelago.¹⁷⁶ The unsustainable harvesting of sandalwood is a well-known feature of the colonial period, and while the Portuguese sought to establish a coffee industry in the late 19th Century, only an estimated 48,000 hectares (approximately 3 percent of the land area) was ever planted with coffee. Traditional cultivation approaches were used over much of this area, and modernized plantations established on concessions granted to plantation enterprises such as the *Sociedade Agrícola Pátria e Trabalho* (SAPT) appear to have contributed less than 45 percent of production, even in the final years of colonial administration.¹⁷⁷

¹⁷² In addition to meetings held in November 2009 with agribusiness actors and representatives of the MED, this analysis draws on land and agribusiness research activities coordinated by the land specialist in recent years including:

(1) Research undertaken in 2005 during the USAID-supported *Land Law Program* that led to the preparation of the study titled *Non-customary Primary Industry Land Survey: Landholdings and Management Considerations*.

(2) Research undertaken in 2009 as part of the *Justice for the Poor* (J4P) program that led to the preparation of a briefing note titled: *Contracts, Land Tenure and Rural Development* (J4P Briefing Note Volume 3 Issue 3 November 2009).

¹⁷³ IFC, *Doing Business 2010, Timor-Leste* (World Bank/IFC, 2009).

¹⁷⁴ IFC, *Timor-Leste: Reform Advisory Memo, Doing Business Project* (World Bank/IFC, 2007).

¹⁷⁵ Ministry of Health, Republic Indonesia, *Indonesia: Health Profile 1999* (Jakarta: 2000) Figure II.A.3, 11. Only 10 percent of the population of Timor Timur was urbanized. The province with the second lowest rate of urbanization was Lampung (Southern Sumatra) with 16.8%.

¹⁷⁶ Ministry of Health, Republic Indonesia, Figure II.B.3, 17.

¹⁷⁷ The Timor-Leste coffee industry has traditionally been smallholder-dominated. See W.G. Clarence Smith, *Planters and Smallholders in Portuguese Timor in the Nineteenth and Twentieth Centuries* (Mar 1992) and M. H. Soesastro, “East Timor: Questions of Economic Viability,” *Unity and Diversity: Regional Economic Development in Indonesia Since 1970*, Ed. H. Hill (Singapore: Oxford University Press, 1989) 207-229.

4. **There remains very little private sector investment in the rehabilitation of coffee plantations or other areas of the primary industry sector, representing a major obstacle to the development of exports.** Although some areas of primary industry, notably teak, expanded during Indonesian times, many coffee leases had been abandoned by the end of the Portuguese period.¹⁷⁸ The industry was strictly controlled during the Indonesian occupation by the military company P.T. Salazar, which paid those who harvested the crops a fraction of the value of the produce. The limited extent to which pruning and replanting occurred during these decades is only now being addressed by donor-supported programs, including CCT and the *Portuguese Cooperation Agricultural Rehabilitation* program.

5. **The minimal extent to which post-subsistence agricultural practices gained a foothold in Timor-Leste during the Portuguese and Indonesian periods is evident in how very limited land had been alienated from customary tenure for such purposes.** Notwithstanding the production of coffee and, on a more limited scale, the production of other cash crops including candlenut, peanuts, maize, mungbean, and copra, the majority of rural farmers in Timor-Leste rely mainly on subsistence crops for their livelihoods.¹⁷⁹ The 2005 ‘non-customary primary industry survey’ undertaken by the USAID-supported *Land Law Program* identified only 47,000 hectares of rural land that had been alienated¹⁸⁰ from customary tenure for post-subsistence purposes (including coffee concessions and areas of state forest)¹⁸¹ during the Portuguese and Indonesian periods (see Table 8.1).

Table 8.1: Alienated Primary Industry Land in Timor-Leste by Tenure Status¹⁸²

Main Tenure Status	Number of Parcels	Average area (Hectares)	Total Hectares
State Aquaculture Sites (mostly from the Indonesian period)	15	1.6	24
State Agricultural Concessions (established mostly during the Portuguese period, and mostly for coffee cultivation)	40	318	12,712
State Agricultural Land (including production sites, seedling sites, Indonesian-period model farms, and agricultural secondary schools)	51	28	1,420
State Forestry Sites (teak common but condition variable)	49	290	14,213
Transmigration, Translocation and Rural Housing Areas	44	345	15,198
Private (Individual) Parcels	60	36	2,156
Private (Church) Parcels	57	25	1,411
Private (Community) Parcels ¹⁸³	8	18	143
Other State Parcels (including industrial zones potentially of use for primary industry purposes)	7	37	257
Total	331		47,534

¹⁷⁸ For further details, see: (1) Rod Nixon, *Non-customary Primary Industry Land Survey: Landholdings and Management Considerations* (Jun 2005); (2) Dennis Shoemith, ed, “Challenges for Managing State Agricultural Land and Promoting Post-subsistence Primary Industry Development in East Timor,” *Crisis in Timor-Leste: Understanding the Past, Imagining the Future* (Darwin: CDU Press, 2007) 101-115.

¹⁷⁹ According to the 2008 MED *State of the Nation Report Volume IV: Sector Status Reports* (page 5): “more than 50 percent (of rural households) engage in subsistence farming producing no saleable surplus and generating no off-farm income. Fewer than 50 percent produce a modest saleable surplus, mainly coffee, rice, vegetables and/or fruit, chicken, pigs, eggs, fish and other grains.”

¹⁸⁰ ‘Alienated’ land is land which has been excised (and hence ‘alienated’) from customary tenure, such as agricultural concessions or land expropriated for use by the state.

¹⁸¹ As mentioned above, much of the estimated 48,000 hectares of coffee growing area was established on land never alienated from customary tenure and cultivated using traditional methods.

¹⁸² See Nixon, *Non-customary*. Note also that the survey identified a small number of parcels that had been alienated from customary tenure in the post-Indonesian period.

¹⁸³ This category refers to land that local informants assert is privately owned by a community (as distinct from customary land). The existence of this category of land was not foreseen at the outset of the research.

6. **Overall, the total area of alienated land in rural Timor-Leste amounts to about 3 percent of the land area.** This is roughly equivalent (if urban areas are also taken into account) to the amount of land alienated from other ‘subsistence states’ in the region. Seventeen percent of land in Fiji, 16 percent in Solomon Islands, 2 percent in Papua New Guinea, and 1 percent in Vanuatu are alienated land.¹⁸⁴ Some of the larger areas of alienated land in Timor-Leste (agricultural concessions generally dating from the Portuguese period) are located in the coffee-growing parts of the country while other large areas (mainly state forests and transmigration areas dating from Indonesian times) are located along the south coast, known for its increased rainfall in comparison to the north.

7. **Although there has been some government activity in property rights, minimal focus has been given to expanding land registration in rural lands.** Whereas the GOTL, with USAID support, is addressing the critical area of property rights in urban and peri-urban areas through the *Ita Nia Rai* land registration program, this initiative will not cover the vast amount of the country over which *customary systems* of authority predominate. As a result, there is reason to consider expanding this land registration program over critical areas of primary industry land, including some areas of coffee plantation. Care would need to be taken, however, to protect the interests of rural communities and mitigate the acknowledged possible risks of expanding land registration into land under customary management.

8. **Research by the World Bank’s J4P program highlights the extent to which the rural Timorese business culture remains bound to the largely unmodernized rural economy.** Not only is the struggling post-subsistence sector burdened by poor infrastructure (see Box 8.1), low levels of technology, and a limited market, but there is as yet little familiarity with institutional arrangements commonly associated with more advanced agriculture.¹⁸⁵ Based on interviews with over 20 domestic agribusiness actors in the districts of Aileu, Baucau, Dili, Ermera, Manatuto, Liquiçá, and Manufahi, some of these characteristic features of the rural economy can be identified.¹⁸⁶

Box 8.1: The Tyranny of Poor Infrastructure

To date, infrastructural challenges have discouraged farmers and agribusiness actors alike from investing in agriculture, and one buyer in Manufahi referred to the risks, until recently, of trucking produce to market, especially in the wet season. Given road conditions, a misjudgment about when to transport produce could result not only in a stalled transaction but also the ‘dead’ fuel costs associated with an unsuccessful attempt at accessing the market. Not surprisingly, regional buyers believe that the amount of produce sourced from outlying sub-districts could increase significantly as roads improve.

9. **Neither the leasing of land nor the use of contracts play much of a role in agribusiness in Timor-Leste.** This is because transactions are typically negotiated between producers and buyers at the time of sale. Personal relationships, meanwhile, are an important (but not decisive) element. A farmer, for example, may travel to a district centre, possibly with as little as several kilograms of a cash crop (coffee, candlenut, peanuts, maize, mungbean, green bean, or copra) and offer the produce

¹⁸⁴ See P. Larmour, “Migdal in Melanesia,” *Weak and Strong States in Asia-Pacific Societies*, Ed. Peter Dauvergne. (Canberra: Allen & Unwin, 1998) 77-92. Note that while the rural economies of these south-west Pacific states are also characterized by subsistence farming, post-subsistence activities have been facilitated by leasing arrangements to varying extents. Examples include the plantation sector in Papua New Guinea (including the Ramu sugar plantation in Ramu Valley and the palm oil industry in West New Britain).

¹⁸⁵ See for example the 2009 draft *Timor-Leste National Employment Strategy* paper (prepared by the Secretary of State for Vocational Training and Employment as input to the National Development Plan), which describes (pages 6-9) economic conditions in Timor-Leste as characterized by ‘small markets, high costs, low skill base, poor physical infrastructure and incomplete legal institutions.’

¹⁸⁶ A total of 50 domestic agribusiness operators were identified using the Peace Dividend Trust Timor-Leste business database (www.buildingmarkets.org). Some of these businesses, upon closer investigation, were not active in the sector. Others have yet to be interviewed.

to a locally based buyer. Often the producer and the buyer will have a long-standing personal relationship, based perhaps on marriage or village of origin, which increases the likelihood of a transaction. However, this will not guarantee a sale, unless the buyer: (i) meets any higher offers; and (ii) has sufficient cash on hand.

10. Concerning the links between a district-based buyer and the broader market, the buyer may sell independently to bigger traders in Dili or Indonesia or act as an agent for a larger Dili-based trader. If the buyer is an agent for a larger trader, he/she may expect access to interest-free loans for the purchase of equipment (typically trucks). Again, written contracts between traders and district-based buyers appear rare, although traders report few problems having their loans repaid. Central to some agreements between traders and their district agents is the trader's first right of purchase to the produce collected by his/her agents, a similar but significantly more formalized version of the arrangement that prevails between farmers and district-based buyers. One Dili trader explained how, after lending money to agents, he would provide updates on the prices he would pay for various commodities. In the event an agent is tempted by a higher price from a rival trader, the agent is expected to inform his Dili-based sponsor of this offer. The trader then contacts associates in Surabaya (where much of Timorese produce goes for processing) to determine if the higher price is realistic. If so, the trader will pay it; if not, the trader will allow the agent to sell to the rival.

11. **As a further disincentive to investors, there is little familiarity with contract farming practices (see Box 8.2).** No contract farming support institutions are in existence, and defaults by farmers on contract farming deals are reported to be common. While one large Dili-based trader lends out (via agents) pulping machines in order to expedite early stages of coffee processing by villagers, almost none of the private sector agents visited have invested directly in the intensification of agriculture by leasing and improving land or engaging in contract farming activities in which investors provide farmers with key components of intensified agriculture (e.g. seeds, fertilizers, training) in return for the right to purchase the crop at an agreed price. This suggests that developments in the areas of leasing customary land and registering contractual agreements are necessary if the GOTL is to realize its goal of increasing private investment in the rural economy and expanding export-oriented production.¹⁸⁷

Box 8.2: Contract Farming in Timor-Leste

The prevailing business culture has presented difficulties to large buyers, including GOTL agencies, which have engaged in contract farming arrangements. In 2006, when the MAFF contracted Viqueque farmers to produce mungbean at 35 cents/kilo, farmers sold part of the crop to a rival buyer at 40 cents/kilo, notwithstanding the inputs (including seeds and training) provided by MAFF. In this case, MAFF was eventually able to purchase the remainder of the crop for the agreed price.

12. **The minimal role which contract farming arrangements have in Timor-Leste highlights the need for a better understanding of the options for developing a contract farming culture in Timor-Leste.** Although it is unlikely that parties to these contracts will ever seek to enforce them legally, contracts can play a role in clarifying the responsibilities of each party and identifying mechanisms for dispute resolution.¹⁸⁸ With international experience suggesting that contract farming investor/sponsors and farmers rarely take each other to court,¹⁸⁹ there is no reason to expect that this situation will be any different in Timor-Leste. Hence, the promotion of a commerce-oriented mediation/dispute resolution forum may provide a more practical means to resolve disputes, thereby

¹⁸⁷ These objectives were referred to by Cipriana da Costa from the MAFF at the MED conference on Sustainable Rural Development for Poverty Reduction (27-28 March 2009).

¹⁸⁸ C.S. Eaton and A.W. Shepherd, *Contract Farming: Partnerships for Growth, a Guide* (Rome: FAO, 2001) 61-62. See also M. Doria, *FAO brief- Contract framing: Legal Considerations on Contractual Design and Enforcement* (FAO: Rome. 08 Mar 2010) <http://www.fao.org/ag/ags/contract-farming/toolkit/briefs-list/en/?no_cache=1>.

¹⁸⁹ Eaton 62.

reducing the risks for both investors and community members/farmers to partake in such a relationship. Additionally, whatever the final form a contract farming promotion institution takes in Timor-Leste, it is worth noting that international experience indicates that the management of it should not be dominated by government although there may be a role for government representation.¹⁹⁰

13. **Despite the challenges, opportunities for Timor-Leste agribusiness actors appear to have improved since Independence.** Some traders who formerly sold only to Dili-based merchants have taken advantage of the 1999 exodus of Indonesian businesses, and they now export a number of agricultural products (including candlenut) directly to Indonesia, albeit on a modest scale. In another new initiative, farmers experimenting in Natabora with agricultural cooperatives are adamant that the cooperative approach is improving labor efficiency and yielding improved rice harvests.¹⁹¹

14. **A handful of entrepreneurs, meanwhile, aim to climb the value chain and improve the quality, value addition, and marketability of local produce.**¹⁹² Among these is the Baucau-based Acelda organic candlenut oil enterprise. Although it is the beneficiary of support from international organizations,¹⁹³ Acelda remains a locally-owned business and an example of the benefits of niche approaches tapping into the expanding organic market.¹⁹⁴ Acelda is one of a number of examples (others involve coffee) where businesses have sponsored the organic certification of agricultural land belonging to communities. Interestingly, this process appears to bond investors and farmers in a mutually beneficial relationship requiring neither contracts nor leases because the premium which businesses can pay for produce from areas for which they have arranged organic certification means that farmers sell to them out of self interest. As promising as this sounds as a possible replacement for more traditional forms of engagement between buyers and producers, the global demand for niche products, such as organic candlenut, is finite.¹⁹⁵ Accordingly, it is clear that more traditional approaches such as contracts and leasing arrangements still have a critical role to play in the expansion of agribusiness exports in Timor-Leste.

15. **In the present contractual and land-tenure environment, there continues, however, to be concern around the general absence of reciprocal obligations between buyers and producers.** For instance, some forward-looking traders speak of introducing improved varieties of commercial species (coconut, hybrid teak) and distributing these among farmers. And yet, potential investors are concerned about whether they will gain additional return from distributing improved varieties to farmers who have no reciprocal obligations to them. The general absence of reciprocal obligations between buyers and producers in the rural Timor-Leste economy is at the heart of the problem, with the effect that there is no incentive to invest in new crops or expand existing ones. Accordingly, despite the handful of positive innovations profiled above, the available information suggests two defining and interlinked features about the nature of agribusiness in Timor-Leste at the present time:

¹⁹⁰ Eaton 62.

¹⁹¹ The MED initiated a number of agricultural cooperatives in 2008.

¹⁹² Some traders support the introduction of an exports standards organization as a way of improving the quality of Timor-Leste crops.

¹⁹³ These include the University of Hawaii and GTZ.

¹⁹⁴ See M.J. Luzius, "Agricultural Firm Export Strategies in Fiji," *Pacific Economic Bulletin*, Vol. 21, No. 2 (2006) 162-168. Data from the International Federation of Organic Agriculture (Willer, Helga, Minou Youssefi-Menzler, and Neil Sorensen, eds, *The World of Organic Agriculture - Statistics and Emerging Trends 2008* (IFOAM and FiBL, 2008)) places global sales in 2006 at US\$38.6 billion (twice the 2000 figure).

¹⁹⁵ Total demand for niche organic products can be limited. Acelda (visited 7 May 2009), for example, has a standing order from a cosmetics manufacturer for 36 tons of organic candlenut oil per year, yet this is all they can sell. Accordingly, as Luzius notes, there are advantages in diversification. Also, organic marketing may not be recession-proof. After conducting extensive organic certification throughout Ermera district in recent years, Timor Global (interviewed 25 June 2009) found that demand for organic coffee dropped following the 2008 economic crisis.

- Most agribusiness actors in Timor-Leste appear to be engaged largely in *competing* for a share of the limited and, according to some reports, dwindling harvest of available cash crops, especially in relation to coffee.
- As a direct corollary of the first point, there is very little private sector investment in the expansion of crops or the improvement of crop quality.

16. **This present situation of minimal engagement of the private sector presents clear problems for the intensification of agriculture and the expansion of exports.** Given the weakness of state extension and agricultural training capacity, as discussed in Chapters 4 and 7, the disengagement of the private sector means that the modernization of the agricultural sector is almost entirely dependent on donor programs. It is uncertain, however, whether these alone can address the declining productivity, quality issues, and wastage which characterize the commercial primary industry sector (notably the coffee industry), especially given increasing population pressures.¹⁹⁶

17. **In short, one major consequence of Timor-Leste's land issue is reduced domestic and foreign investment.** With farmers less likely to invest in land that they do not own, this limits agricultural productivity. More generally, the lack of a functioning property rights system combined with limited familiarity with contract farming discourages investment in increased productivity through leasing, contract production, or small-scale improvement by individual smallholders.¹⁹⁷ Foreign producers are also unlikely to invest in land where the borders and ownership is unsure. Long-term leases are insufficient. Many foreign landowners have a business model where they own the land where they operate. The company expects to gain equity from their long-term payments. In addition, foreign companies may believe that they will be unable to resolve a dispute fairly with a local landowner.

18. **In the few instances where the private sector has tried to invest in agribusiness, state leases proved to be an insufficient basis for companies to begin work, and further negotiations with the surrounding communities were required.** As highlighted by these instances (see Box 8.3), it is clear that decisive action— based on a robust framework for negotiation that promotes mutually productive and equitable outcomes for investors and communities and respects existing rights to land and natural resources— is necessary to facilitate means by which such investment can be realized in order to engage private capital in the modernization of the agricultural sector and the expansion of export-oriented production and employment. Given the size of coffee plantations in Timor-Leste (approximately 50,000 hectares or over), it makes sense to promote private sector investment in this particular crop as a matter of priority.

19. **Another severe consequence of the land issue on the business environment is the effect on access to finance.** The absence of a formal property rights system has prevented the development of a formal land market through which land (even in the form of lease-rights)¹⁹⁸ could be used as collateral. This is particularly problematic since land is the most frequently utilized form of collateral. Because of the lack of a land cadastre or registry, there are few clear or clean titles in Timor-Leste. Although the process to establish land rights and a cadastre is underway, it is a lengthy process. In the meantime, the commercial banks will not accept land in Timor-Leste as collateral because without a clean title, it is difficult for the banks to claim the land in the event of a default. Foreign land is, however, accepted.

¹⁹⁶ In the course of DTIS consultations held in Timor-Leste in November 2009, coffee exporters referred to the likelihood of decreasing production in view of the age and condition of much of Timor-Leste's coffee plantation. Some exporters also reported significant quality issues. See also Deutsch.

¹⁹⁷ In the Timor-Leste context, one might think of a 'smallholder' as someone farming no more than a few hectares.

¹⁹⁸ Note that *freehold* title is not essential in order for land to be used as collateral. As in Vanuatu, for example, leases over former areas of customary land can also serve as the basis for collateral.

Box 8.3: Trying to Invest in Agribusiness in Timor-Leste

The case of a state lease issued by the GOTL to Timor Global in 2005 for 3000 hectares of coffee plantation at Fatubesi (Ermera district) clearly demonstrates the need for new strategies for promoting engagement between the private sector and communities. Although formally state land, Timor Global discovered that the lease provided an insufficient basis for the company to commence crop improvement and management activities. Before the company could begin work, it had to negotiate with community leaders and agree to provide benefits including employment opportunities and security arrangements. Timor Global has now commenced work on a 60 hectare section and employs around 80 members of the local community (including 30 said to have connections to the resistance movement). Based on the Fatubesi experience, Timor Global has incorporated a '*community relations approach*' into new operations. In Baucau district, for example, the company has leased 1,500 hectares of community land and is introducing intensive cultivation methods on sites in three *sucos* totaling up to 100 hectares. The company is presently using a share-farming approach which it hopes will assist movement towards contract farming in future years. Although, in this case, the community has agreed to lease the 1,500 hectare parcel to the investor, the right of the community to issue this lease (under RDTL law) is not yet clear (although hopefully this will be resolved in the forthcoming land law and supporting regulations).

C. CONCLUSION AND RECOMMENDATIONS

20. **Timor-Leste is characterized by the lack of a functioning formal system of property rights, limited use of leasing and contract farming, and complications resulting from how the vast majority of land is owned by the community.** These not only negatively impact access to finance and provide disincentives for domestic and foreign investment, but more generally, they constrain agricultural productivity and the development of primary industry in Timor-Leste.

21. **Recommendations related to land issues include:**

- (a) Conduct a preliminary rural land tenure assessment which evaluates the nature of community ownership and use claims over areas of coffee estate land. Potential strategies for addressing land tenure aspects and facilitating greater private sector investment in the modernization of the coffee sector could include: (i) Support for lease-based industry-community partnerships on community land; (ii) Re-issuing of leases over state plantation land; and/or (iii) Issuing titles to smallholders with substantiated long-term claims. (For more details on these options refer to Annex 8.1.)
- (b) Evaluate the potential for expanding the *Ita Nia Rai* land registration program over critical areas of primary industry land, including some areas of coffee plantation, while ensuring protection for community rights.
- (c) Identify options for developing a contract farming culture including the establishment of facilities for the voluntary lodgment and filing of contracts by sponsors and farmers wishing to build their respective reputations as reliable parties.
- (d) Develop a commercial arbitration or mediation facility with the capacity to resolve conflicts around contract farming. Such a facility should support education and resources for communities and investors to secure equitable dispute resolution outcomes given the potential for power imbalances.
- (e) Develop a coffee working group to encourage major coffee buyers/exporters to work with landowners and land users to realize the rehabilitation of particular areas of coffee plantation, on the basis that within reason, the buyer/exporter contributing to the rehabilitation of a particular area will have first right of purchase of the harvest of that area. Develop an accord between the main coffee producers to respect each other's harvest purchase rights. This should help address competition between major coffee buyers over the existing harvest, with little or no private sector investment in the management, modernization, and expansion of plantation areas.

CHAPTER 9: IMPROVING BUSINESS ENVIRONMENT TO ENHANCE EXPORT COMPETITIVENESS

A. INTRODUCTION¹⁹⁹

1. **Timor-Leste's export competitiveness is affected by legal and regulatory constraints and limited access to finance.** A country's legal and regulatory environment is critical to export development. Domestic and foreign traders must be able to establish businesses, mediate disputes, and obtain capital to purchase equipment, raw materials, or goods for sale.

2. **Timor-Leste ranks among the lowest countries in the world on most international measures of business environment and global competitiveness.** According to the World Bank's 2010 Doing Business Report, Timor-Leste's business environment ranks 164 out of 183 countries measured.²⁰⁰ In the World Economic Forum's Global Competitiveness Report 2009-10,²⁰¹ Timor-Leste also ranks low at 126 out of 133 states assessed. The purpose of noting these rankings is to try and identify priority actions to improve the business environment.

3. **The key business environment constraints to trade and export competitiveness were identified through discussions with private sector, government officials, and civil society organizations.** Registering land, access to finance, starting a business, and contract enforcement were repeatedly cited as major constraints. These four areas are interrelated. For example, the lack of clear land titles inhibits access to finance because land cannot be used as collateral. These areas are also significant to export competitiveness. For example, traders cannot buy goods if they lack access to capital. Companies, foreign or domestic, cannot set up their businesses or obtain capital if they cannot register. Export contracts will not have credibility if disputes cannot be resolved.

Table 9.1: Timor-Leste's Ranking for the 10 sub-indicators in the 2010 Doing Business Report

Sub-Indicator	Ranking (out of 183 countries)
Closing a Business	183
Enforcing Contracts	183
Registering Property	183
Getting Credit	181
Ease of Doing Business	164
Starting a Business	150
Employing Workers	89
Dealing with Construction Permits	87
Trading Across Borders	85
Paying Taxes	19

Source: Doing Business 2010 Timor-Leste

4. **The 2010 Doing Business Report, which provides a baseline for understanding the business environment constraints, also identifies these areas as being problematic relative to other countries.** These four areas are rated among the lowest in the world (see Table 9.1), with both registering property and enforcing contracts ranked at 183 out of 183 countries assessed.

¹⁹⁹ This chapter deals primarily with the legal and regulatory component of business environment and access to finance. Infrastructure, land, and human resources are often considered part of the business environment, but they are covered in other chapters. Other problems which might be considered burdensome such as security, governance, and political climate are not considered.

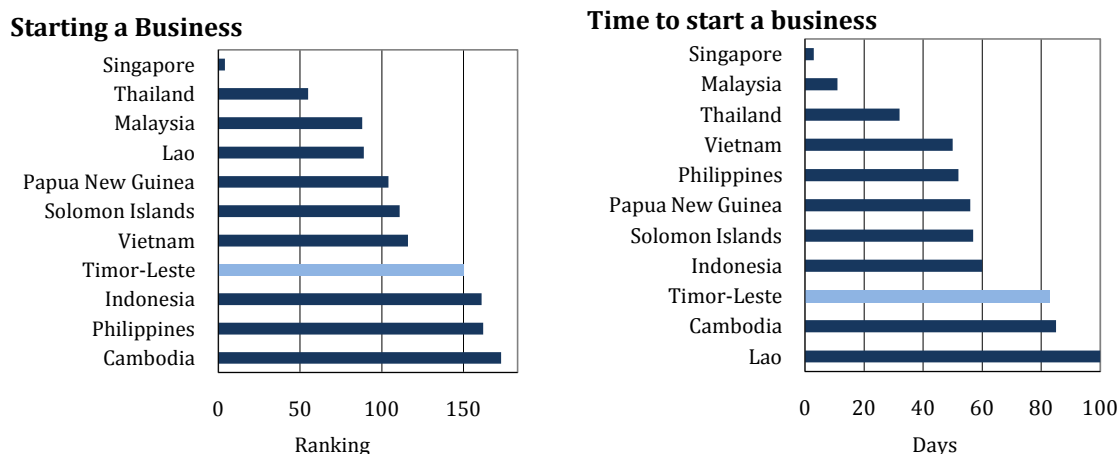
²⁰⁰ IFC, *Doing Business Report 2010* (World Bank/IFC, 2009). The Doing Business ranking measures ten aspects of operating a business. Among the ten indicators which make up the ranking, a number of them measure both the degree of regulation and the regulatory outcomes by looking at the number of procedures, time, and cost involved.

²⁰¹ WEF. The Global Competitiveness Index consists of 12 pillars, including 'institutions' and 'financial market sophistication.'

Furthermore, in the Global Competitiveness Report for 2009-2010, ‘inefficient government bureaucracy’ and ‘access to financing’ were the top two most problematic factors for doing business that were identified among a list of 15 factors.²⁰² As noted above, land access issues are discussed in Chapter 8, and this chapter will focus on access to finance and legal and regulatory issues, in particular issues around starting a business and contract enforcement.²⁰³

B. BUSINESS REGISTRATION AND LICENSING

Figure 9.1: Starting a Business and Time to Start a Business



Source: Doing Business 2010 East Asia & Pacific

5. **In terms of starting a business, Timor-Leste ranks 150 out of 183 countries measured in the 2010 Doing Business Report.** When compared to a selection of countries in Southeast Asia and the Pacific Islands, Timor-Leste’s ranking is only slightly better than Indonesia, Philippines, and Cambodia (see Figure 9.1). Papua New Guinea and Solomon Islands rank at 104 and 111 respectively and have environments that are relatively more conducive to starting a business.²⁰⁴ With the process taking 83 days on average, Timor-Leste requires the 3rd most number of days to start a business among regional comparators. Furthermore, the process is also cumbersome with 10 procedures. While there is no official fee for business registration, the minimum capital requirement of \$5,000 for ‘sociedades por quotas’ is still a significant barrier for small enterprises²⁰⁵ (See Annex 9.1 for more details and regional comparisons).

6. **All business enterprises seeking to operate formally in Timor-Leste must register with the MoJ.** Nevertheless, the Doing Business Report for Timor-Leste has noted that many companies in Timor-Leste continue to be irregularly registered.²⁰⁶ According to a Peace Dividend Trust survey of 2,384 local companies, most of which were micro to small businesses,²⁰⁷ 11 percent of these companies said they did not register, and an additional 7 percent said their company was registered

²⁰² WEF.

²⁰³ This chapter does not cover trade facilitation and ‘Trading Across Borders.’ The former topic is the subject matter of Chapter 10.

²⁰⁴ IFC, *Doing Business Timor-Leste*.

²⁰⁵ The amount specified for a ‘sociedades por quotas’ is \$5,000 and for a ‘sociedades anonimas’ is \$50,000. In the Portuguese system, sociedades por quotas and sociedades anonimas are among the most common forms of incorporation.

²⁰⁶ IFC, *Doing Business Timor-Leste*.

²⁰⁷ 98.6% of the 2,384 surveyed companies were classified as micro to small enterprises, with 81.6% being micro enterprises with up to 10 employees.

but did not supply corroborating evidence. The main reason given for not registering was the complexity of the process and the lack of information on the subject.²⁰⁸

7. **The current process likely deters potential domestic investors and encourages firms to operate in the informal sector or pay illegal fees to speed up the process.** Business registration is important since foreign investors will look to enter into contracts with registered local businesses. It is also important for expanding the tax base and promoting access to finance (although even registered firms have difficulties accessing financial services). Long and complex processes for starting a business send negative signals to foreign investors about the business environment and can cause investors to lose confidence and interest. This is an important issue to address given the potential for foreign investment in high-value agricultural goods, including the possible expansion of the coffee trade.

8. **To improve business registration and licensing, reforms are required in a number of areas, some of which will be addressed through support from the International Finance Corporation's (IFC).** Under the scope of the Memorandum of Understanding between the MoJ and IFC, a list of legislative reform measures was circulated in mid-May 2010 for public consultation (see Annex 9.2).²⁰⁹ Required reforms include eliminating requirements such as the paid-in minimum capital. Policy decisions will also be necessary regarding business licensing, including the abolishment of temporary business licenses and elimination of licenses for *all* business activities while requiring licenses for *only those activities posing a danger to the public*. These measures are discussed more fully in Annex 9.1. Two overall priorities for business registration/licensing reform are discussed below.

9. **One of the complications with respect to business start-up arises from confusion among officials in the MoJ and MTCI regarding their respective roles.** From a legal perspective there is no duplication of the registration process since this is MoJ's responsibility.²¹⁰ The MTCI, on the other hand, is responsible for issuing business activity licenses, which is not the same as a legal verification of the business.²¹¹ The confusion arises because the terms registration and licensing are often used interchangeably by officials, and the MTCI sees the issuing of the provisional activity license as 'registration.' Interviews conducted by the IFC also found that similar confusion existed in the private sector with lawyers unable to differentiate between incorporation, registration, and licensing, or distinguish between the different procedures and compliance requirements.

10. **Capacity building is required to clarify the different responsibilities of MoJ and MTCI to staff members, including on terminology related to business start-up.** Private sector companies identified the lack of legal training and commercial knowledge as an issue with government officials. This is compounded by the fact that the relevant laws are in Portuguese, which is not always understood by government staff. Other examples of problematic areas for MoJ staff involve the distinction between sole entrepreneurs and companies with a single shareholder. As a result, companies who want to register as sole entrepreneurs often end up registering as a company with a single shareholder, which is a more complicated process.

11. **In addition to capacity building, the creation of a one-stop-shop for business start-up, along with a quick incorporation and registration procedure, should be prioritized.** For countries that have been reforming their processes to start a business, the most popular reform measure since 2004 has been to create or improve a one-stop-shop.²¹² The proposed quick incorporation and registration procedure for Timor-Leste involves executing the approval of the

²⁰⁸ Claire Parois and Scott McCord, *Business Community in Timor-Leste* (Dili: Peace Dividend Trust, Sep 2009).

²⁰⁹ "Business Registration Reform," *Ministry of Justice*, MOJ, 07 May 2010 <<http://www.mj.gov.tl/?q=node/188>>.

²¹⁰ GOTL, *Decree Law 6/2007 Code of Business Registration* (2007).

²¹¹ MTCI, *Despacho Ministerial N. 1/2008 de 6 de Fevereiro* (2008).

²¹² IFC, *Doing Business*.

company's name, the incorporation's formalization, and its registration in a single act in the presence of interested parties.²¹³ This would consolidate these procedures into one day. The basic idea behind a one-stop-shop is that it enables the registrant to visit 'a single window,' and the responsibility for routing the application and documents to various government offices is moved from the registrant to the government. This would be greatly facilitated by electronic sharing of information across ministerial departments (including those responsible for the allocation of a TIN in MoF, for issuing the business license in MTCI, for issuing work visas and residence authorization, etc.). It is envisioned that this service will be provided by the Public Registry Department of MoJ.²¹⁴

12. **Alongside these overall priorities, measures are also needed to address problems which have particular relevance for foreign investment: (i) language for application documents and (ii) the requirement that at least one of the company directors reside in Timor.** While the law does not specify what proof is necessary for the residency requirement, in practice, the MoJ requires a valid work visa/residence permit. In order to obtain this, a foreign director must already be employed by a registered company in Timor-Leste. Anecdotal evidence suggests that a workaround procedure exists where a local director is hired specifically for the registration process. This workaround process can be lengthy and expensive, thereby deterring foreign investment. Moreover, a work visa is not a standard requirement to register a company in other countries. If it is necessary to maintain such a requirement, a potential solution to accelerate the process would be to require only the *proof of application* for a work visa/residence permit.

13. Application documents are currently required to be in one of two official languages, Tetum or Portuguese. Private businesses reported that government staff request submissions to be in Tetum even though Portuguese is an approved language. Often the business licensing center at the MTCI translates documents into Tetum, which can considerably delay the process. An alternative would be to allow for registration in English. This would facilitate trade and investment with Australia, one of Timor-Leste's major trading partners, and may enhance the benefits of joining the ASEAN.

14. **In short, long and cumbersome business start-up processes can be a significant deterrent for investment, particularly foreign investment.** It also encourages domestic businesses to operate in the informal sector. To facilitate overall business start-up, priority reforms include establishing a one-stop-shop with quick incorporation and registration procedures and electronic sharing of information across ministries. Measures are also needed to address business start-up problems specific to foreign investors. This includes language issues around application documents and the requirement that at least one company director reside in Timor.

C. CONTRACT ENFORCEMENT

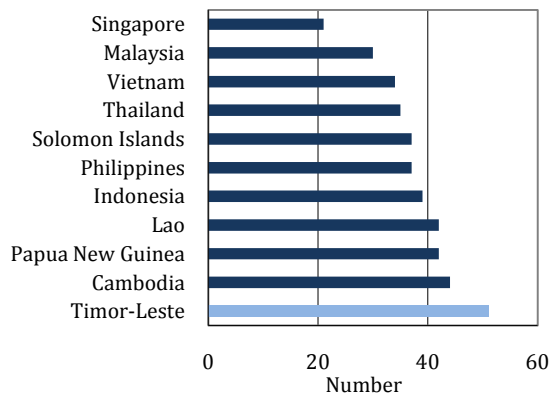
15. **In terms of enforcing contracts, Timor-Leste ranks 183 out of 183 countries surveyed in the 2010 Doing Business Report.** It requires 51 procedures, which is the highest among the selected regional counterparts in Figure 9.2. However, even more striking is the number of days required to enforce a contract. While the average number of days for the regional comparison group is 568 days, Timor-Leste requires 2.5 times longer with a total of 1435 days or nearly 4 years to enforce a contract. Only Bangladesh, Guatemala, Afghanistan, and Suriname rate lower than Timor-Leste in terms of the length of time to enforce a contract. With a cost of 163.2 percent of the claim value, Timor-Leste also has the highest cost of enforcing a contract in the world. Private sector stakeholders interviewed for this study stressed the importance of contract enforcement, and when asked how long court cases could take, the response was often as long as five years. Even so, enforcement is not assured.

²¹³ See Annex 9.1: "Business Registration Reform."

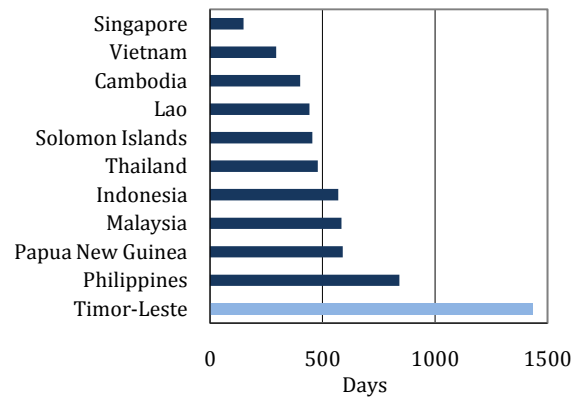
²¹⁴ "Business Registration Reform."

Figure 9.2: Procedures and Time to enforce a contract

Procedures to enforce a contract



Time to enforce a contract



Source: Doing Business 2010 Timor-Leste

16. **The issue of contract enforcement is a high-priority from the perspective of export competitiveness.** If a foreign trader cannot gain resolution of a dispute in a reasonable amount of time, then the trader will be less likely to do business in that market. If capital used to purchase products is held in abeyance because of lengthy court proceedings, then additional trades are not made. Moreover, contract enforcement has a multiplier effect on other shortcomings in the business environment. Lack of collateral impedes access to finance in Timor-Leste. If creditors are unsure that collateral can be claimed in a timely fashion, if at all, then their risk is higher and obtaining credit becomes more difficult.

17. **One problem with contract enforcement is the low capacity in the government.** There are only 17 judges in Timor-Leste and little capacity to enforce contracts outside of Dili. There is also a strong lack of commercial knowledge within the Timorese judicial system. The UNTL only began providing a general law degree in 2006. While this is not a commercial law degree, students are provided with some commercial law education in the last years of the program.²¹⁵ The Legal Training Center (LTC) has also delivered some training on commercial issues, particularly for notaries.²¹⁶ However, the LTC's trainings for judges, prosecutors, public defenders, and lawyers focus mainly on civil contracts with few subjects related to commercial law. The low capacity in the government is further compounded by the fact that there is currently no legislation to regulate commercial contracts, although the draft civil code will provide some general guidance going forward.

18. **At the same time, in many industries, such as coffee, cash transactions are the primary means of exchange and few contracts are used.** With no guarantee of the sale of their cash crop via contract, farmers may be managing risk by using a portion of their land for subsistence farming. In addition, the minimal role of contract farming arrangements also adversely affects agricultural intensification (see Chapter 8 for an in-depth discussion on contract farming). These examples suggest that greater use of contracts could facilitate increased private investment in the rural economy and expansion of export-oriented production.

19. **Because of the inability to enforce contracts, assets are not used as collateral for loans.** Since land is not a viable form of collateral in Timor-Leste, equipment and other assets could be considered. The banks have, however, indicated that claiming such assets in the case of a loan default

²¹⁵ This includes a general overview of the commercial law, intellectual property rights, and commerce agreements with practical exercises in drafting agreements in the 3rd year. The Code of Business Registration Decree Law 7/2006 is also taught in the 4th year.

²¹⁶ A second notary training program, which covers the commercial law (120 hours) and business registration code (69 hours), is scheduled for July 2010.

are often unsuccessful and an extremely difficult and expensive process. As long as the enforcement process is lengthy and difficult, the banks will not accept these other forms of collateral. *Improving and expediting contract enforcement could facilitate the acceptance of other forms of collateral by banks.*

20. **Contracts are also not being used in Timor-Leste as a basis for credit.** In other markets, contracts are often the basis for access to finance, particularly trade finance. Firms can utilize contracts with reputable buyers to obtain loans. In Albania, textile manufacturers are granted loans to purchase raw materials on the basis of contracts with Italian companies. This is rarely done in Timor-Leste with the exception of contracts with the GOTL. The widespread use of contracts and the ability for creditors to enforce those contracts could spur lending in Timor-Leste. This can only be accomplished if contract enforcement works effectively.

21. **Finally, there is also limited use of alternative methods of dispute resolution in Timor-Leste.** Arbitration and mediation are often methods of dispute resolution that are utilized prior to court proceedings because of their lower cost and shorter timeframes, particularly for contract disputes in countries where the judicial environment is challenging. Frequently, two enterprises will agree to resolve any disputes in an arbitration or mediation facility. While there is some informal mediation and arbitration in Timor-Leste, no formally recognized commercial arbitration and mediation facility exists. Informal, customary arbitration with suco leaders may suffice for some domestic companies. However, an international trader or investor will seek a formal procedure that he or she believes will be fair and impartial to resolve any disputes. There is a clear need to set-up a commercial arbitration or mediation facility, which can potentially be housed in the new *Chamber of Commerce* or *Investe Timor-Leste*. In order to boost investor confidence, consideration might also be given to allowing foreign investors to have recourse to the International Chamber of Commerce's International Court of Arbitration.

22. **In summary, the limited use of contracts, low capacity of government to enforce contracts, lack of a legal framework for contracts, and the general lack of alternative methods of dispute resolution adversely impact trade and productivity in Timor-Leste.** In order to address these problems, measures are required to build the capacity of Timorese businesses to use contracts while simultaneously building the capacity of the judicial system and educating the wider community about the role and advantages of contracts. The development of a commercial arbitration or mediation facility, along with trainings for mediators and arbitrators, will also be important for boosting investor confidence and providing alternative methods of dispute resolution.

D. ACCESS TO FINANCE

23. **Weak institutions impact adversely on the growth of credit markets.** In the 2010 Doing Business Report, Timor-Leste ranks 181 out of 183 countries surveyed in terms of getting credit. The report highlights two issues. The first is *limited information on potential borrowers* to help lenders assess credit risk. Foreign banks have difficulty adjusting risk models to the Timorese environment, and two banks reported that their risk assessments were carried out abroad. The second is the *weak legal structure to protect borrowers and lenders*. Land in Timor-Leste is generally not accepted as collateral and, as discussed above, contract enforcement is weak. However, banks do often accept land owned in Australia, New Zealand, and Indonesia as collateral.

24. **Institutional weaknesses are compounded by limited financial management capacity in the private sector, including the lack of skills for preparing bankable proposals.** Those companies that do seek capital often are unable to estimate how much capital they need, do not have financial statements, have not prepared a business plan, and have difficulties preparing the forms and other paperwork to apply for credit. An IFC survey of 50 enterprises found that 50% of respondents did not prepare any type of financial statements and among these a quarter of them indicated that they

did not identify the lack of financial management practice as a problem to repay loans. Over half of the sample used the same bank account for personal and business purposes, which makes it difficult to determine the real cash flow of the enterprise. The lack of understanding of financing needs is reflected in a recent survey of fifty SMEs whose demand for credit was eight times more than effective demand.²¹⁷ There is also evidence of a poor understanding of bank interest rates, practices, and fees.²¹⁸

25. **The above issues have limited the size and reach of financial services for Timorese businesses including exporters.** There are three commercial banks,²¹⁹ all branches of private foreign banks, and one government owned finance provider, Instituicao de Microfinancas de Timor-Leste (IMFTL). Commercial bank lending operations are largely concentrated in Dili.²²⁰ Microfinance is provided by IMFTL, two microfinance institutions,²²¹ small credit unions, savings and loan cooperatives, and NGOs. One microfinance institution, Moris Rasik, provides life microinsurance. Mobile banking and use of new technologies are under discussion at the banks and microfinance institutions to ease the problems with making payments. The Asian Development Bank (ADB) has funded initial assessments for mobile and branchless banking.

26. **The limited availability of financial products impacts on business growth, including in the export and agriculture sectors.** Loans are typically not available for the purchase of farm inputs or improvements, or for trade in farm products, thereby affecting the growth of agribusinesses.²²² No *local business insurance* (general business, liability, property, casualty insurance, etc.) is available yet in Timor. If local lending institutions cannot insure their businesses against losses, they will be less likely to lend, particularly to new businesses without collateral. Insurance can also protect exporters if goods are lost or stolen in transit or if a customer fails to pay. The establishment of an insurance industry in Timor-Leste is essential to facilitate higher value export transactions in the future. The BPA approved in March 2010 the issuance of its first license for insurance to National Insurance Timor-Leste (NITL). Currently, NITL only provides motor vehicle insurance. However, it is in the process of developing other categories of its business, and marine cargo insurance is among the approved classes of general insurance to be underwritten by NITL.²²³

27. In addition to the lack of local business insurance, there is also *no formal leasing* in Timor-Leste. Leasing allows entrepreneurs to acquire capital equipment. Furthermore, there are a *limited number of lines of credit*. A line of credit is essentially a preapproved loan that enables a borrower to access funds up to a defined limit in a short period of time. As noted previously, most agricultural trading is done in cash, and frequently Indonesian traders will purchase coffee or peanuts at a lower price because they have cash on hand and farmers want the assurance of the immediate transaction. Timorese traders, despite their willingness to pay a higher price, are often working as intermediaries and have to consult with buyers for additional funds. A line of credit would enable traders to obtain

²¹⁷ According to the IFC survey, “effective demand is defined here as ability to service and repay a loan... An effective demand is one backed by at least preparedness to meet requirements such as a liquidity cushion (equity); a loan purpose related to a feasible technology and economic activity (business plan); measures to contain the effects of probable risks, interest rate and collateral requirements and others.” The survey estimated an effective demand of \$14.4 million: Johanna Stenstrom Johansson, *SME Credit Demand In Timor-Leste: Survey Findings* (IFC for the Better Business Initiative (BBI), Aug 2009).

²¹⁸ Johansson.

²¹⁹ The three commercial banks are: Banco Nacional Ultramarino (BNU) of Portugal, Bank Mandiri of Indonesia, and Australia New Zealand Bank (ANZ). IMFTL is a quasi-bank institution established by the government.

²²⁰ BNU has the furthest reach across Timor-Leste with 8 branches, including in Dili, Baucau, Gleno, Maliana, Oecussi, Viqueque, and Suai. Bank Mandiri is only in Dili but has expressed an interest in opening a branch in Baucau. ANZ is also located only in Dili but has an automated teller machine in Baucau.

²²¹ Moris Rasik and Tuba Rai Metin

²²² IMF, “Annex VI. Prospects for Financial Development: The Emerging Role of Micro-Finance,” *Democratic Republic of Timor-Leste: 2009 Article IV Consultation—Staff Report* (IMF, Jul 2009).

²²³ BPA, *Press Release*, 15 Mar 2010.

additional cash prior to coming to the market. There is *overdraft protection* in Timor-Leste, but this is a relatively high interest product not designed as business credit.

28. **IMFTL is the largest microfinance lender with an estimated 44% of its total lending going towards business purposes.** Around seventy-five percent of the capital lent by IMFTL is *salary loans* to individuals. An individual that can secure his/her loan against a government salary (whether his/her own or someone else's) can borrow money and arrange for that salary to be debited to repay the loan. Approximately 29% of loans linked to government salaries are used for trade and finance or agriculture/forestry. Business loans (market vendor loans, seasonal crop loans, etc.) accounted for 23% of IMFTL's portfolio as of 31 December 2009.²²⁴ There is, however, a maximum of \$5,000 per loan limit at the IMFTL. Thus, successful businesses, such as smaller exporters, that have progressed beyond the microfinance phase face a dilemma since the loan sizes available from IMFTL are too small.²²⁵ With IMFTL in the process of applying for an unrestricted banking license and potentially privatizing in the future, this would allow increased loan sizes, deposit taking, and total lending for private business.

29. **Despite rapidly rising bank deposits, credit to the private sector has stagnated and is associated with increased non-performing loans and defaults.** Deposits went from \$248 million in the third quarter of 2009 to \$289 million at the end of the year. Credit to the private sector has remained at around \$100-110 million since 2007.²²⁶ Non-performing loans have been high at around \$29 million since 2008. *Default rates were reported as high as 40 percent by some banks but have steadily improved since reaching that peak.* Defaults on loans were reportedly due to over-borrowing, projects failing to come to fruition, and poor financial management. While no sector was singled out, failed construction, real estate, and hotel projects were noted.

30. **Although this does not pose systemic risks given the level of provisioning and limited level of lending, the situation causes credit rationing.** The spread between lending and deposit rates remains high at around 10 percentage points,²²⁷ reflecting private sector capacity constraints and associated risks. Commercial banks have become more selective with credit applicants. High default rates in previous years have caused banks to become more risk averse.

31. **The IFC survey also identified specific gaps in the lending market** and reported that "...[in Timor-Leste] small, medium and large enterprises perceive a lack of access to:

- Investment capital loans at 12-48 months terms with loan size in the range of US\$ 5,000-3 million;
- financial leasing products as a less expensive means of acquiring needed equipment (currently many enterprises rent equipment at high costs); and
- insurance.²²⁸

32. **Based on the same survey, enterprises who were primarily seeking financing for trade, services, and small investments had effective demands for loans in the range of \$5,000-\$50,000.** These enterprises tended to be smaller, less experienced, and with limited credit history. This market segment is particularly underserved. For lower value loans, microfinance and other avenues are available. Larger companies with international connections are able to borrow overseas. Companies indicated that they borrowed money in Singapore, Australia, and other locations. However, a

²²⁴ ADB, Private Sector Development—Pacific Liaison and Coordination Office.

²²⁵ According to Johansson, enterprises who were primarily seeking financing for trade, services, and small investments had effective demands for loans in the range of \$5,000-\$50,000.

²²⁶ BPA, *Banking Indicators 2004-2009*, BPA, 30 Jun 2010 <http://www.bancocentral.tl/en/b_indicator.asp>

²²⁷ Based on BPA, *Interest Rate January-December 2009*, BPA, 30 Jun 2010

<http://www.bancocentral.tl/Download/Monetary%20Statistics/Interest%20rate-2009_en.pdf>.

²²⁸ Johansson.

Timorese exporter looking for \$25,000 to buy raw materials will be hard-pressed to obtain capital without a clear title to land or a government contract.

33. **There are efforts under way to tackle some of the above challenges.** *The BPA has developed a credit information reporting system.* The system has buy-in from the banks and the largest non-bank financial institution. The information system contains both positive and negative repayment information and detailed borrower identity information but reportedly falls short of a full registry. The BPA consulted MFIs in the design phase, and it is anticipated that the MFIs will join the information registry. *On microfinance, Moris Rasik and Tuba Rai Metin (TRM) are two institutions that are successfully lending with some scale to poor entrepreneurs in Timor-Leste.* Moris Rasik is trying to register as a local NGO and expand its services to take deposits. TRM is a smaller institution with an aggressive expansion plan underway in partnership with BASIX. INFUSE (a UNCDF/UNDP project that provides TA and capital to microfinance institutions) and the Better Business Initiative (supported by IFC) are assisting the BPA to establish appropriate supervision of Non-Banking Financial Institutions. Draft legislation has been prepared and was circulated by the BPA to a limited group of practitioners and experts for comment in May 2010.

34. **Banks and microfinance institutions do see the potential to increase lending to SMEs.** In many emerging economies, banks offer low value loans (between \$1,000-\$10,000) without collateral to SMEs. These loans are often approved within 2-3 days. One private sector company mentioned a plan to work with the banks to provide credit to reliable farmers in order to upgrade the farmers' productivity. These farmers have a track record as suppliers, and the company would help the farmers with a plan for production and to pay back the banks. Theoretically, the relationship with a reputable company should decrease the borrower's risk to the bank, though banks have not indicated any interest in this scheme to date.

35. **There are no specific trade finance products in Timor-Leste for exporters.** Letters of Credit are available from the commercial banks in Timor. The Letters of Credit are primarily tools to assist government procurement agents with importation. A contract with the GOTL is normally required to secure a Letter of Credit. During the DTIS mission, none of the commercial banks, microfinance institutions, and other members of the banking community identified any specific trade finance products. As those sectors develop and enterprises become capable of export, they will need capital to buy additional supplies, improve production or processing facilities, hire workers, or certify goods. *The establishment of trade finance products while export competitiveness improves is a measure to facilitate the capability of enterprises to export.*

36. **A national development bank to be established with initial public capital of \$8 million has been approved by the GOTL.** The objective is to address the lack of access to finance for Timorese nationals. A task force has been formed, headed by the Minister for Economy and Development, to finalize an initial MOU with the Bank Rakyat Indonesia (BRI) for joint venture partnership. The initial partnership is envisioned as 51% government ownership with the balance of capital from BRI and Timorese private investors.

37. **In summary, freer flow of capital is obstructed by the limited financial management capacity of businesses and by institutional weaknesses which prevent risk management.** Lenders have identified land issues as the predominant impediment to lending, and while bankers were generally positive about the macroeconomic prospects of Timor and the potential for lending, they were dismayed by the inability to collateralize loans. In order to improve access to finance, measures are required to further develop the credit information reporting system, enact enabling legislation for Non-Banking Financial Institutions, enable the provision of credit on the basis of contracts, and augment the capacity of business development services to provide financial management training to local businesses.

E. CONCLUSION AND RECOMMENDATIONS

38. **A challenging business environment and lack of access to finance places domestic producers at a disadvantage and impedes private sector development.** This chapter has focused on three specific issues, which pose particular challenges to the private sector, therefore impacting on potential exports. These are *burdensome business registration and licensing processes, weak contract enforcement, and lack of access to finance*. **It is also important to recognize the important progress that is being made.** For example, tax reforms have helped to reduce costs of doing business in Timor-Leste. The new *Investment Law* has been approved by the Council of Minister and is expected to be finalized by Parliament in 2010. Measures are being taken to create a new investment promotion agency, Investe Timor-Leste, which will assist both foreign and domestic investors. Clearly, there is much progress and addressing some of the issues above will help to further improve the business environment.

39. **Recommendations related to starting a business include:**

- (a) Build government capacity with respect to business registration and licensing and clarify to the staff and private sector the difference in responsibilities between MoJ and MTCL.
- (b) Establish a one-stop-shop for business start-up, including (i) creating a procedure of quick incorporation and registration of companies in the MoJ's business registration office and (ii) rendering possible the electronic sharing of information related to business registration between relevant ministerial departments.
- (c) Resolve issues regarding the language of application documents and assess the option for supporting English language registration.

40. **Recommendations regarding contract enforcement include:**

- (a) Develop a commercial arbitration or mediation facility, which can potentially be housed in the new *Chamber of Commerce or Investe Timor-Leste* and assess the option of allowing foreign investors to have recourse to the International Chamber of Commerce's International Court of Arbitration.
- (b) Develop a training program for commercial disputes for mediators and arbitrators and train judges on related matters.
- (c) Build the capacity of Timorese businesses to use contracts and educate the public about their role and advantages with relevant models for the agriculture sector.

41. **Recommendations related to increasing access to finance include:**

- (a) Provide support to evolve the credit information reporting system into a full-fledged credit bureau.
- (b) Enact the enabling legislation for Non-Banking Financial Institutions.
- (c) Enable the provision of credit on the basis of contracts with reputable private sector companies by developing an awareness campaign and trainings for local financial institutions, coupled with the development of recourse mechanisms in the event of default (e.g. legal framework for loan recovery and/or trade insurance). Activities may entail working face-to-face with the banks to evaluate current risk models and establish requirements for Timorese businesses as well as foreign or domestic purchasers in order to utilize a contract as collateral.
- (d) Augment the capacity of business development centers to be able to provide specific training on financial management practices and on preparing financial statements, business plans, and other documents required by a bank to receive credit.

SECTION IV: TRADE FACILITATION

CHAPTER 10: IMPROVING TRANSPORTATION AND TRADE FACILITATION

A. INTRODUCTION

1. **In Timor-Leste, opportunities for improvements in transport and trade facilitation are constrained by the same factors that limit trade: small economy, low density of population and production, shortages of skilled labor, relatively high cost labor, difficult terrain, and limited communications network.** The networks used to collect and deliver exports and to deconsolidate and distribute imports are relatively simple. They use Dili as the international gateway and hub for aggregation and distribution. The hub is connected to the major towns by narrow arterial roads with limits on travel speeds and truck size. From these, the network deteriorates into dirt roads providing limited access to rural areas. The capacity of the port and road network is adequate for the current level of economic activity. But with increasing volumes, congestion problems are expected to become relatively severe over the next few years, which requires that the infrastructure be strengthened.

B. ROAD TRANSPORT

2. **The road transport system in Timor-Leste is somewhat unusual in that the distances traveled are short and the loads are small, but travel times are relatively long and costs are high.** This is due primarily to the terrain, although even the coastal roads have low average travel speeds. Dili is connected to the larger towns through a network of narrow paved roads, typically 3.5-4.5 m wide. The average speed on these roads ranges from 20-40 kph depending on terrain and condition of the pavement. Truck size is limited by road alignments and grade with most of the fleet being 4-6 wheel trucks with capacities of 1.5 to 5 tons. There are some large trucks transporting containers and project cargo, but these operate primarily within the Dili area. They are sometimes used to carry project cargo to inland sites, but these are carefully controlled and relatively expensive movements. The trucking industry consists of:

- A small number (about 10) of construction companies and 3rd party transporters with fleets ranging from 10-20 trucks. Their fleets include a mix of smaller trucks for internal distribution and 10-14 wheel trucks for operation around the Dili area; and
- A large number of individuals owning 2-3 trucks with capacity of 1 to 3.5 tons.

The largest vehicles in the truck fleet are cement mixers, side loaders for transporting containers, and a few heavy chasses.

3. **Because of the terrain and road alignment, travel times will continue to be long, limiting utilization of trucks in terms of annual kilometers to levels well below international norms.** In this situation, restrictions on the age of imported trucks serve only to increase capital cost and therefore the cost for transport.²²⁹ It is more important to ensure the roadworthiness of both imports and the existing fleet and capacity for operating in the mountainous terrain.

4. **There is relatively little demand for transport of agricultural goods between towns other than for coffee.** Even this is limited in volume and season. The volume of imported goods distributed to the rural areas is relatively small since much of the consumption takes place in Dili. The principal demand for 3rd party transport is the movement of basic construction materials for roads and buildings.

²²⁹ Limiting environmental impacts remains important but given the low level of utilization, it is unclear whether requirements for meeting standards applied in more developed countries is appropriate.

5. **The core road network is approximately 3,000 km in length and provides reasonable coverage given the size of the country** (see Annex 10.1 for more details). The limitation in terms of road width restricts the speed but is adequate for the projected volume of traffic except in the area around Dili. *The basic challenge is to maintain the roads in good condition throughout the year.* In recognition of this need, the government has recently increased the maintenance budget. At the same time, it is working with the ADB to develop a project for rehabilitating around 230 kilometers of the major links in the network. This, combined with continuing private investment in truck capacity, should significantly improve the efficiency and quality of road transport.

Road Traffic Pattern

6. **The findings of the ‘Origin and Destination’ (O-D) survey conducted in 2009 under an ADB-funded TA clearly confirm the dominance of Dili in the countrywide traffic pattern.**²³⁰ Baucau also demonstrates the potential of becoming a regional center. Some interesting findings include:

- 65 percent of trips (57 percent if motorcycles are included) have either origin or destination in Dili;
- 25 percent of trips (35 percent if motorcycles are included) are intra-district/local;
- only 12 percent of trips (10 percent if motorcycles are included) are inter-district, about half of which are centered on Baucau;²³¹ and
- in general, the cross-island trips tend to use the longer coast roads. This is mainly due to the poor condition and difficult terrain of the north-south roads.

7. **Weather and coffee production are two major factors affecting traffic.** The rainy season has a direct impact on traffic patterns. The duration of the rainy season can vary in different areas of the country, between an average of 4 months (from December to March) and 8 months (from November to June). Landslides and flooding, which are common during that season, cause frequent road closures. Another factor affecting traffic patterns during the year is the coffee production and harvesting cycle. Five coffee-growing centers are concentrated in the western area of Timor-Leste. Coffee is picked up by small trucks and first brought to wet factories for processing. It is then sent to other factories for drying and finally to Dili for final processing and shipping. The coffee harvest season peaks between August and September. During that season, light and medium truck traffic in the coffee growing areas and between those areas and Dili increase significantly.

Key Trade Corridors

8. **Given the extensive road network and sparsely distributed population (particularly in the rural areas), road links with potential to grow into a trade corridor should be prioritized to receive funds from the road sector’s limited investment budget.** Related to this, the key issues faced in two of the important road links that function as trade corridors are discussed here (note, however, that these two trade corridors are not the only ones requiring capital investment). Other corridors, such as the one connecting Dili to Baucau, may also be considered as priority roads in the core road network development.

9. **Coffee Corridor: Dili – Tibar – Gleno – Ermera.** The coffee corridor connects the country's main coffee growing areas in Ermera district to the capital, where the commercial airport and seaport are located. This corridor includes road A03-01: Dili – Tibar (7.2 km); A04-01: Tibar –

²³⁰ ADB, *Technical Assistance to the Democratic Republic of Timor-Leste for Preparing the Road Network Development Project* (Manila, 2008).

²³¹ The percentages of the three categories total above 100 percent. This is because trips within Dili district were counted in both category (i) and (ii).

Gleno (33.3 km); and A04-02: Gleno – Ermera (11.5 km), totaling 52.0 km. The highland areas in Ermera district is the largest coffee growing area in the country, accounting for about 53 percent of total coffee production. The coffee corridor may therefore be considered in a pilot trade-corridor development program to demonstrate how improved road transport, together with other infrastructure, can facilitate trade-related activities. The coffee corridor could serve the important Dili – Gleno line. Road A03-01(Dili – Tibar) bears the highest traffic volume among national roads, about 1,500 vehicle-per-day (vpd), excluding motorcycles. Road A04-01 and 02 provide direct access for Ermera district to the north coast trunk road. The current traffic volume on these two roads are about 500 vpd, excluding motorcycles.

10. **While the traffic volume does not yet meet the road capacity and will not in the near future, improvements are necessary to address road safety and potential landslides.** This includes:

- Improving the geometric features of roads, particularly the section of Tibar – Gleno – Ermera, to address road safety concerns;
- Planning and implementing other road safety measures to enhance the corridor's capability of trade facilitation. The current road from Dili to Tibar was constructed along the coast line with an average width of 6.0 m. After Tibar, the coffee corridor turns into the mountainous area, and the road width is reduced to 4.5 m and even narrower around difficult terrains. The driver's sight distance is severely limited by the poor horizontal and vertical alignments; and
- Implementing slope protection measures along the road. Geotechnical stability is another major concern in the mountainous area of Ermera. Landslides during the rainy season have caused frequent road closure. As an interim solution, the corridor's vulnerability to geotechnical instability can be alleviated through: (i) bioengineering works on the road side; (ii) rehabilitation and maintenance of the drainage system; and (iii) emergency road repairs during the rainy season.

11. **Cross-Border Corridor: Dili – Tibar – Liquiçá – Batugade – Mota Ain.** The cross-border corridor connects Dili with the Mota Ain border to Indonesian. The corridor includes road A03-01: Dili – Tibar (7.2 km); A03-02: Tibar – Liquiçá (26.3 km); A03-03: Liquiçá – Batugade (75.8 km); and A03-04: Batugade – Mota Ain (3.0 km), totaling 112.3 km. The corridor may be further extended to connect the exclave Oecussi and even Kupang, the major city in Indonesian West Timor, to let Timor-Leste access the air and sea transport facilities of Indonesia.

12. In 2008, Indonesia was the largest source of Timor-Leste's imports (including rice, fuel, construction materials, and other commodities) and its third-largest export market (including coffee and livestock). The expected membership in the ASEAN will increase the opportunities for cooperation between these two countries. The cross-border corridor may improve the connectivity in border areas, thus creating economic benefits, reducing poverty, and promoting trade with Indonesia.

13. **The current traffic volume on the cross-border corridor is among the highest in the country, but it is still fairly light in terms of traffic capacity.** In 2009, the Average Daily Traffic (ADT) was about 500 vpd, excluding motorcycles. About 30 percent of the traffic uses large vehicles such as Jeeps, pick-ups, and trucks. Medium-size trucks are also seen traveling on the road from West Timor to transport construction materials and other goods. The road geometry is characterized by flat longitudinal gradient with occasional short sections associated with steep-sided coastal cliffs. The majority of roads have a width of 4.5 m. Generally the horizontal alignment is not severe with curvature of about 30 degrees per km. However, the curvature increases significantly in the vicinity of steep coastal cliffs where road alignments are compromised by the difficult terrain.

14. **With the trunk road connecting Dili to the border areas, the corridor may keep serving the highest traffic volumes in the future.** As a result, it will be important to address the problem of river flooding along the road since this is the main cause of road closure. Before road widening becomes necessary, the drainage system, including both longitudinal and transversal, should always be functioning. To minimize road closure, inspection of the drainage system before and during rainy season should be undertaken regularly.

Strategic priorities for developing a road network to facilitate trade

15. **Identifying trade corridors in the country-level strategy** – Timor-Leste's extensive road network provides reasonable access to basic socioeconomic facilities, such as markets, hospitals, and schools. However, the development of the road network must be programmed in a sustainable manner such that the country's economic development will not be held back by the operational costs of such a network. Among others, the population centers and trade-related facilities need to be well connected to support economic development. The role of trade corridors should first be clarified in the country-level strategy in order to guide capital investment and policy strategy for trade facilitation.

16. **Building a road maintenance scheme to reduce the vulnerability of the trade corridor** – The existing road network provides good connectivity within the country, but it is still vulnerable to severe climates and unstable terrains. *Road infrastructure must be preserved through routine and periodic maintenance.* Routine maintenance will clear drainage and small landslips promptly, keep vegetation under control, and repair surface damage in its early stages. Periodic maintenance to restore road surfaces damaged by traffic abrasion and wet season erosion could help to postpone the need for rehabilitation or reconstruction. *The maintenance works should be programmed systematically in the sector budget to allocate limited resources more efficiently and effectively over the entire road network.* The annual maintenance expenditure for the whole core road network in its present condition is estimated at \$25 million. But improving the roads to a maintainable condition will reduce the expenditure to about \$10.5 million.

17. **Monitoring trade activities to guide road sector capital investment** – A trade activity monitoring mechanism should be established after the DTIS to guide capital investment and policy reforms, monitor impacts of trade facilitation investments, and propose timely adjustment to capital investment, such as road widening, realignment, and upgrading. Only with such a mechanism, which will allow informed decision-making by the government, will road sector development contribute to trade facilitation and Timor-Leste's overall economic growth and development.

C. PORTS²³²

18. **The Port of Dili is used to handle both container and breakbulk cargo.** The container traffic is loaded containers inbound and primarily empties outbound. While coffee and some other exports are containerized, these are very small in volume. The current volume of containerized imports is about 14,000 TEU per year. Nearly all is transported in 20' boxes because of limited handling capacity of both the vessels and the road network. Over half of these are multiple containers carrying a single consignment of homogenous goods such as bottled water, rice noodles, bagged rice, canned soda, etc.

19. **The port is a small facility originally designed for breakbulk operations.** It has a wharf length of 285 meters, which is nominally divided into three berths, and an alongside depth of about 7 meters. The port has a relatively short approach channel, and the bay is protected from waves by reefs. The available depth limits the size of vessels calling at the port to 500 TEU.

²³² See Annex 10.2 for more information on ports.

20. **Only one berth was operational in early 2010.** The other two should be operational by the end of the year, but so far this has not been a significant problem. Currently there are 3-4 vessel calls a week by feeder vessels operating out of Singapore, Darwin, and Surabaya. These are typically in port less than a day. Three shipping lines provide most of the container services using vessels in the range of 120-240 TEU. Delays in berthing these vessels occur only when there is bunching of arrivals, e.g. 5 per week. This does not occur often but the frequency is increasing and is expected to be a problem in the next year.

21. **Port capacity is limited not on the waterside but on the landside.** The backup area of the port is only about 2.7 hectares stretching along the coast with a maximum width of 75 meters. The eastern section of the yard has been recently rehabilitated, but there is a significant subsidence in one area and another section has been used for storage of construction material. The western section is in reasonable condition so far for its current application of relatively haphazard storage of containers, but it is not suitable for use as a high density container storage yard.

22. **The current yard configuration accommodates only about 360 TEU stacked three high.** Although the average amount of containers transferred per vessel call is only about 170 TEU, the average dwell time is 3 days. As a result, the average yard occupation is already nearly 70 percent even though the average occupancy for the single berth serving containers is only about 35 percent. More importantly, the larger vessels transfer 250-300 TEU, which requires the entire yard to be available for that vessel call. There is an additional constraint on port access from the landside. The trucks exiting the port not only must make a difficult turn onto a 2 lane road but also travel to the west on roads with the highest level of traffic in Dili.

23. **If the volumes continue to increase, congestion will become a severe problem, and this cannot be addressed through the independent actions of three competing stevedoring companies.** The vessels calling at the port are self-sustaining since the port lacks fixed or mobile container cranes. So far, this has not been a problem. While the ships have relatively low berth productivity, about 10 containers per hour at berth, their performance is limited primarily by the cycle time of the yard equipment. Container handling is done by private stevedoring companies, which supply their own equipment, primarily toploaders and reachstackers. There are three companies, each handling specific shipping services. They assume responsibility for unloading and loading the vessel, stacking and unstacking the boxes in the yard, and transferring the boxes to and from the road transport. The port authority has minimal involvement in operations. The result is that there is an excess of equipment but none of it designed to maximize the throughput of the storage area. *There is no system for managing the yard other than the record-keeping of the individual lines. There is no strategy for transferring boxes to an off-dock facility to prevent yard congestion.* So far, this arrangement has worked exceedingly well given the extremely difficult configuration of the port.

24. **In order to avoid congestion, it will be necessary to convert the port to a modern configuration.** This would involve block stacking of containers in designated slots to a maximum height of 4 boxes with rows 5 wide. This will require a unified management of the yard with a computerized system for controlling yard inventory. It will require investment in yard gantries and major physical modifications including:

- Removing all structures from the yard, including the passenger terminal;
- relocating the port and customs offices to the other side of the street;
- rehabilitating the new ferry terminal, closing the old one, and opening a separate gate for the ferry traffic; and
- repairing the yard in the western section and rehabilitating the yard in the eastern section.

25. **Such changes will allow the port to double its current capacity and continue operating without congestion for another 6-8 years.** The port throughput can be increased further by

establishing an off-dock yard together with procedures for transferring full vessel loads from the port to the yard at night. This would provide a further increase in capacity of 50 percent and allow the port to continue operating without congestion for another 4 years. At this point, it would be necessary to have developed a new port outside of Dili, and by that time, the volumes would be sufficient to justify the capital cost.

26. **Since these improvements require not just capital investment but a fundamental change in port operations, a new system of terminal management is required.** This can be done through a concession or other arrangement that produces an efficient, unified, user-oriented system of terminal management. Complementary improvements in customs activities would be required to ensure that these increases in capacity could be realized.

D. CUSTOMS

27. **Customs in Timor-Leste is confronted with the same set of problems faced by any customs department that is attempting to modernize its procedures, but there are a several factors that make its situation unique.** First, the introduction of a single band tariff and reduction in rates means not only that the revenues collected are a small portion of total government revenues but also that there is much less requirement for precision in the classification of cargoes. Second, although there is excess staff, most of the cadre has been involved in customs for less than *seven years*, and technical skills are still developing. Third, as a young customs service, it should be amenable to change but the lack of existing procedures has led to a lack of discipline. Fourth, the introduction of the ASYCUDA system is proceeding, but the lack of reliable communications system limits its effectiveness and requires a manual backup. Fifth, the borders remain porous although the formal border crossings are being upgraded. Sixth, although scanners have been introduced at the seaport and airport, the use of this equipment and the procedure for maintaining them have yet to be determined. Finally, most of the formal trade moves through the port so neither the airport nor the land borders have a significant customs presence.

28. **An efficient customs is essential for efficient operation of the port, and at present, the dwell time of import containers is determined almost entirely by customs procedures.** This includes not only the time to complete procedures but also the uncertainty due to lack of consistency in these procedures. *So far, customs has succeeded in clearing goods within 2-3 days.* This would place it well ahead of most developing countries, except that it has been accomplished through omission rather than commission. The documentation process is cumbersome, but the level of due diligence is minimal. A high percentage of shipments are subject to physical inspection, but these are cursory and generally expedited through informal payments. In addition, a large percentage of shipments involve multiple containers for which only one is inspected. There is provision for clearance of goods at bonded warehouses and the facilities of some of the larger traders, but there is no formal program for expediting the shipments of the more reliable imports.

29. **The biggest challenge for customs is to introduce a more rigorous system while maintaining the short clearance times that currently allow Dili port to continue functioning.** Improvement in transparency is important not only to expedite the clearance of cargo but also to maintain the integrity of the customs procedures. Some of the government's ongoing efforts to improve customs transparency and efficiency include:

- Increasing the use of ASYCUDA to expedite submission and processing of declarations;
- allowing electronic submission of manifests to support a program for pre-arrival clearance;
- developing a simple commodity value database;
- introducing basic risk management using random sampling and simple risk profiles; and

- developing a post-audit capacity.

30. **As part of these initiatives, it is important to recognize the ineffectiveness of a border control strategy based on a high level of physical inspection.** Not only is it less effective than a targeted approach but it also encourages carelessness and can lead to malfeasance as has been observed in Dili. Other initiatives that need to be taken up include:

- Integrating the use of x-ray scanning into both the inspection procedure and the flow of containers;
- recognizing Customs as the lead border agency responsible for coordinating border control; and
- introducing an ‘Authorized Economic Operator’ (AEO) program for the major shippers.

31. *The first* requires coordination with the port. The facilities currently provided for customs activities are poorly placed and inadequate. While it is not uncommon for port authorities to treat customs as a necessary inconvenience, this is not an option for Dili port. Close coordination in the layout of the storage and customs facilities is essential if congestion is to be avoided. A proposal for such a layout is addressed in Annex 10.3. *The second* is necessary to avoid delays in clearing cargo as a result of lack of coordination among border control agencies. Since customs initiates the clearance procedure and secures the basic documentation, it is the appropriate choice for coordinating the inspection activities of immigration, security, and health among others. This is a common practice and a necessary precursor to establishing a single window procedure, as has been done in Papua New Guinea, Fiji, New Zealand, and elsewhere. *The third* initiative is extremely important since more than half of the imports are shipped by large consignees in multiple container loads. These would be ideal candidates for an AEO program since they are familiar with the procedures and would be willing to agree to a post-audit or other procedure in exchange for expedited clearance.

32. **There are currently various TA activities directed at strengthening the customs service, most notably from New Zealand.** This is being complemented by the establishment of a new customs office opposite the port and by upcoming improvements in the reliability and bandwidth of the communications services used by customs. These should improve the general quality of customs services. *What is missing is a prioritization of initiatives based on their contribution to trade facilitation with top priority given to reducing port dwell time.* While not needed immediately, there will eventually be a need to develop a system for the transfer of containers to bonded off-dock yards based on the manifest rather than bills of lading. Accordingly, additional measures to improve the port system include simplifying procedures, formalizing the customs regime at the border, developing a procedure for moving long-stay cargo to the off-dock facility, and eliminating delays in clearance of duty exempt cargo.

E. TRADE AND SUPPLIER DISTRIBUTION NETWORK

33. **Complementing the focus on the performance of the international gateway is the performance of the network of domestic supply chains that link Dili with the rest of the country.** These supply chains serve three types of trade. The first is the distribution of imported consumer goods to retail outlets in Dili, larger towns, and rural areas. The second is the collection and processing of agricultural exports, especially green coffee, and their delivery to Dili for shipment overseas. The third is the internal trade in agricultural goods, in particular fresh produce and meat shipped from rural areas for sale in Dili, especially to the expatriate community. The existing network has a simple structure based on direct movements of small shipments over short distances at relatively high costs. While the exports of coffee are well organized, the other trades are largely unstructured.

34. Nearly all of the formal trade passes through the Port of Dili. Informal movements of goods across the border from Indonesia are largely intended for consumption in the rural areas. The delivery of imported consumer goods is managed by larger trading companies, which act as wholesalers. They operate large retail outlets within Dili and sell to retailers from throughout the country including Dili. They distribute the goods from their storage facilities, which vary from a collection of containers to large warehouses. They are not involved in distribution of these goods but rather smaller retailers collect the goods from the central facilities. In some cases, these smaller retailers transport the goods to intermediate storage facilities in the large towns for distribution to retail outlets in the rural areas.

35. **While this system works reasonably well given the low density of demand outside of Dili, there is potential for establishing secondary distribution hubs in a few of the larger towns.** The principal advantage would be to reduce transport costs by increasing the size of shipments. There would be some advantage in providing shorter delivery times from the secondary hubs to the rural outlets, allowing them to better manage their stock but this would be marginal. The establishment of these secondary wholesale hubs requires a private sector initiative but could be encouraged through collocation of hubs for the distribution of public services as part of a strategy for fostering economic growth. An obvious choice for a secondary hub would be Baucau, the second largest town in Timor-Leste. It has good road connections to Dili allowing for the shipment of containers. Hermara is an agricultural center, and Hera is the third largest town. But both are too close to Dili as is Liquiçá. Maubisse and Malianna are smaller but already have some small wholesale operations. The latter could serve the southern coast and act as a collection point for agricultural goods to be shipped to Dili. The development of these secondary hubs would also be supported through improvements in infrastructure, specifically by giving priority to the rehabilitation of the roads linking these locations with Dili and by improving the quality of utilities and the capacity of their communications services.

36. **Shipments of agricultural goods, especially fresh fruits and vegetables, from the rural area to Dili will increase only when the quality, quantity, and reliability of supply to the retail market improves.** This will require integrating the supply chain linking rural producers with retail outlets. The question is whether this can be accomplished by integrating up the supply chain from urban grocery stores to the farmer through production contracts or by organizing farmers groups and processors in the rural areas and integrating through supply contracts to the urban markets.

37. **So far, the retailers have shown no interest and the only effective processors have been the coffee mills.** In lieu of these two solutions, farmers markets and NGOs have provided small-scale outlets for rural produce in the urban area. The latter is not sustainable, but the former can be upgraded. The challenge is to organize collection in the rural areas through farmers markets, deliver from these markets to the farmers market in Dili, and upgrade the hygiene and organization of the latter. The farmers market in Dili is a collection of small stalls in an unpaved area. An earlier attempt by the government to provide better facilities was unsuccessful. This suggests that a joint effort by the government and the private sector is required.

38. **Although it is not clear which solution is appropriate, there is little likelihood that Timor-Leste can develop agricultural exports if it cannot compete in the domestic expatriate market.** One alternative might be to take advantage of the supply chains developed by the coffee industry. However, these are not designed to deliver fresh agricultural products to the urban market or to sell to small-scale purchasers.

39. **Aside from the distribution network that links Dili to the 12 nearby districts, improvements are also required in the trade network connecting Oecusse with the rest of Timor-Leste and Indonesia.** The former requires improving the arrangement for transit movements on the route between Batugade and the eastern border of Oecussi. Current negotiations with Indonesia on visa and border procedures should work towards seamless cross-border movements. This need not include a TIR arrangement or other insurance schemes or costly monitoring

technologies since the travel between the two crossings is relatively short. The trade with Indonesia can be facilitated by designating Oecussi as a Special Economic Zone (SEZ). The primary benefits of this status are for imports from Indonesia. There is little likelihood that it will attract FDI or container shipping services. Also, it will require additional customs controls on trade with Timor-Leste by road and ferry.

F. CONCLUSION AND RECOMMENDATIONS

40. **With respect to the road network, basic challenges exist in maintaining the condition of the roads throughout the year, reducing road closure, and improving road safety concerns.**

There is also a need to prioritize road links that have a potential to grow into a trade corridor. With regards to ports, the current port configuration and operations risks congestion as the volume of exports and imports increase. This would constrain the expansion of exports. Customs activities are also important for ensuring timely movement of goods, and they require measures to reduce delays caused by the lack of coordination and high levels of physical inspections.

41. **Recommendations related to road transport include:**

- (a) Identify trade corridors and clarify the role of trade corridors in the country-level strategy. This will help guide capital investment and policy strategy for trade facilitation.
- (b) Build a road maintenance scheme to reduce the vulnerability of the trade corridor. This would include routine maintenance (clearing drainages and small landslips, keeping vegetation under control, and repairing surface damage in its early stages) as well as periodic maintenance to restore road surfaces damaged by traffic abrasion and wet season erosion.
- (c) Establish a trade activity monitoring mechanism to guide capital investment and policy reforms, monitor impacts of trade facilitation investments, and propose timely adjustment to capital investment, such as road widening, realignment, and upgrading.
- (d) Plan and implement road safety measures to enhance the coffee corridor's capability of trade facilitation. This includes improving the geometric features of roads (particularly the section of Tibar-Gleno-Ermera) and implementing slope protection measures. Interim solutions to the geotechnical instability include: (i) bioengineering works on the road side; (ii) rehabilitating and maintaining the drainage system; and (iii) conducting emergency road repairs during the rainy season.

42. **Recommendations related to ports include:**

- (a) Convert the port to a modern configuration to avoid congestion. This would require: (i) removing all structures from the yard including the passenger terminal; (ii) relocating the port and customs offices to the other side of the street; (iii) rehabilitating the new ferry terminal, closing the old one, and opening a separate gate for the ferry traffic; and (iv) repairing the yard in the western section and rehabilitating the yard in the eastern section.
- (b) Develop a new system of terminal management. One option to consider is a concession arrangement that produces an efficient, unified, user-oriented system of terminal management.

43. **Recommendations related to customs include:**

- (a) Integrate the use of x-ray scanning in both the inspection procedure and flow of containers. This will require close coordination in the layout of the storage and customs facilities.
- (b) Delegate Customs as the lead border agency responsible for coordinating border control.
- (c) Introduce an ‘Authorized Economic Operator’ program for the major shippers.
- (d) Eliminate unnecessary steps in customs procedures (e.g. first check requirement) and develop standard procedures for targeted inspections with penalties for misrepresentation.
- (e) Formalize gradually the customs regime at the border in such a way that the benefits of facilitation exceed benefits of informal trade.
- (f) Develop a procedure for moving long-stay cargo to the off-dock facility.
- (g) Eliminate delays in the clearance duty exempt cargo.

44. **Recommendations related to the trade and supplier distribution network include:**

- (a) Encourage private sector initiative in the establishment of secondary wholesale hubs, potentially through the collocation of hubs for the distribution of public services.
- (b) Assess potential models (production, contracts, supply contracts, etc.) for integrating the supply chain linking rural producers with retail outlets.
- (c) Improve the trade network connecting Oecussi with the rest of Timor-Leste and Indonesia by: (i) improving the arrangement for transit movements on the route between Batugade and the eastern border of Oecussi; (ii) promoting seamless cross-border movements in current negotiations with Indonesia on visa and border procedures; and (iii) assessing the option of designating Oecussi as a SEZ.

SECTION V: IMPLEMENTATION AND NEXT STEPS

CHAPTER 11: IMPLEMENTATION AND NEXT STEPS

A. IMPLEMENTATION ARRANGEMENTS

1. In order to mainstream trade into the national development agenda, assist in the coordinated delivery of trade-related technical assistance, and improve Timor-Leste's trade competitiveness through capacity building and reducing obstacles to trade, the GOTL agreed in 2007 to engage in the IF process. According to IF requirements, the GOTL would have to designate a Focal Point (FP) and establish a NSC and National Implementation Unit (NIU).

2. On June 19, 2008, the GOTL approved Resolution No.12/2008 which provides the legal framework to meet these requirements. More specifically, the resolution establishes the National Implementation Arrangements required to supervise, coordinate, implement, and monitor and evaluate in-country IF activities and defines the responsibilities of the NSC, NIU, and the FP. The implementation arrangements are outlined below.

3. **National Steering Committee.** The NSC is a high-level inter-ministerial committee that provides senior level engagement, political commitment, and coordination on trade policy. The NSC is chaired by the Prime Minister and consists of six Ministers (Ministers for Foreign Affairs; Finance; Economy and Development; Justice; Agriculture, Forestry, and Fisheries; and Tourism, Commerce, and Industry). It has the following responsibilities:

- Monitor the overall IF process and activities, including mainstreaming trade into national development plans and Poverty Reduction Strategy Papers;
- Elaborate the strategic plan within the area of trade;
- Ensure effective coordination and buy-in among relevant GOTL agencies, the private sector, civil society, and development agencies;
- Approve DTIS recognized pilot-projects and trainings;
- Evaluate the DTIS and its action matrix as well as approve priority interventions;
- Ensure that trade-related issues are included and receive due attention in Development Partners' Conferences; and
- Evaluate matters submitted to the Committee and approve the necessary measures to move matters forward.²³³

4. **Advisory Council.** The NSC is supported by an Advisory Council which consists of 9 development agencies (World Bank, IFC, IMF, EU, ADB, AusAID, GTZ, JICA, USAID) as well as 3 representatives from the private sector and 3 representatives from civil society. The private sector and civil society representatives will be appointed by the NSC.

5. **National Implementation Unit.** The NIU is the Secretariat to the NSC and is intended to lead IF implementation at the national level and be responsible for coordinating in-country IF activities. The Minister of Economy and Development and the Minister of Tourism, Commerce, and Industry are the co-chairmen of the NIU and the FP is the manager of the NIU. Organizationally, the NIU is set up as a joint government agency belonging to the MED and the MTCI with the FP reporting to the co-chairmen. The NIU will have administrative and technical staff, both national and international, and the staffing terms and conditions will be determined by the NSC. The NIU's responsibilities include:

²³³ GOTL, *Resolution No. 12/2008: Cria a Comissão Directiva Nacional do Quadro do Comércio Integrado e Alargada para Países Menos Desenvolvidos* (Dec 2008).

- Ensuring that priorities identified in the DTIS Action Matrix are integrated into national development plans and Poverty Reduction Strategy Papers;
- Assisting in the preparation and evaluation of projects, including converting the priorities defined in the DTIS Action Matrix into projects that can qualify for funding and recommending priority interventions and strategies to the NSC;
- Monitoring the implementation of the trade strategy and projects supported by the IF initiative, which includes assessing progress of the IF initiative, reporting to NSC about the ongoing implementation of the IF, and organizing, as appropriate, IF implementation meetings;
- Promoting inter-ministerial and donor coordination as well as dialogue between the public and private sector on trade issues; and
- Promoting awareness of the IF process among relevant stakeholders.²³⁴

6. The development of the NIU will be supported by a number of activities under the pre-DTIS funding. This includes a country visit to Lao and Cambodia to observe the operation of their NIUs and identify lessons learned from the establishment of their NIUs.

7. **Focal Point.** On September 1, 2008, H.E. Prime Minister Dr. Kay Rala Xanana Gusmão appointed Mr. Jose Guterres, the former manager of the Small Enterprise Program, to be the FP. His responsibilities include overseeing the functioning of the NIU, managing the NSC funds, advising the NSC, and reporting to the NSC and the Executive Secretariat of the Enhanced IF on a quarterly basis on IF progress. The FP is also responsible for establishing links between the NSC, development partners, IF Executive Secretariat, and other stakeholders and for taking measures to ensure the preparation of the DTIS and its updating.

8. **Donor Facilitator.** Resolution No.12/2008 indicates that the DTIS will be conducted by the World Bank in the initial phase of the IF. While there is no discussion in Resolution No.12/2008 regarding the Donor Facilitator (DF), the EIF guidelines indicates that it is “vital that an effective local Donor Facilitator, with clear terms of reference adapted to the local situation, be appointed by donors in consultation with the local authorities.” The main role of the DF is to ensure timely implementation of the DTIS Action Matrix by assisting in mainstreaming trade into development partner programming. Discussions are underway to identify a permanent DF who would be responsible for assisting GOTL to enlist and coordinate development partner responses to the Action Matrix, including liaising with development partners to ensure effectiveness, complementarity, and harmonization of interventions and exploring possibilities for pool funding arrangements for the implementation of the Action Matrix. Additional responsibilities of the DF include:

- Following up on the Action Matrix, especially on development partners' responses, to optimize coordination among development partners;
- Supporting the NIU and the FP in the conduct of their responsibilities as per the established TOR;
- Assisting the NIU in formulating and appraising projects;
- Facilitating the GOTL's contacts with the development partners by functioning as a link between the development partners and the GOTL;
- Providing regular briefing updates to development partners on IF progress and arranging for consultation and coordination possibilities for the development partners in Timor-Leste; and
- Assisting local authorities in creating knowledge and understanding the IF process in the country, especially at the higher political and public servant level.²³⁵

²³⁴ GOTL, *Resolution No. 12/2008*.

B. PRE-REQUISITES FOR SUCCESS

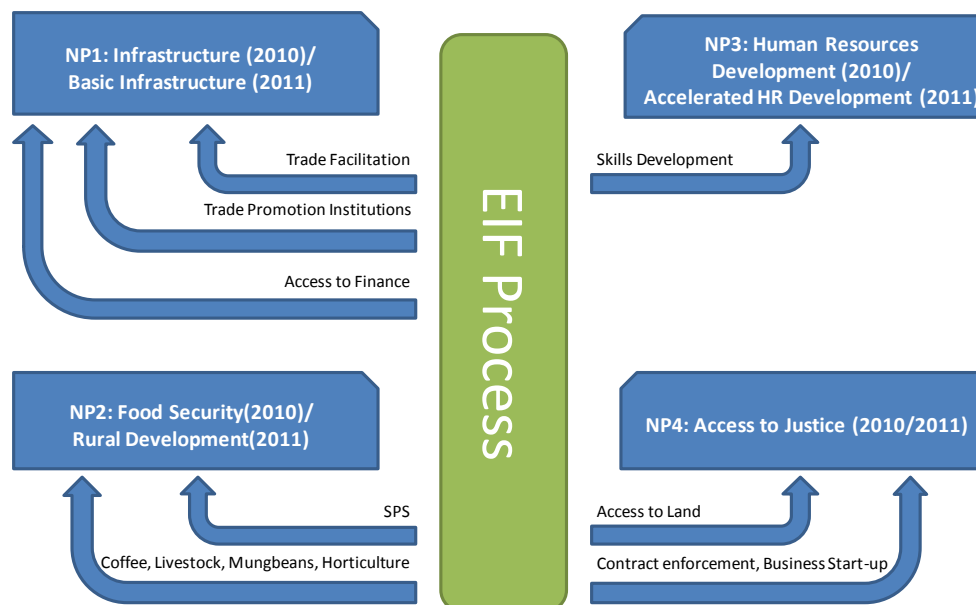
9. Improved trade policy formulation and successful implementation of priorities identified through the DTIS will depend on a variety of factors:

- **Political commitment.** High-level support and endorsement of trade is critical since the implementation of IF activities and priorities identified through the DTIS will require coordination and comprehensive changes across a number of government ministries and agencies. Timor-Leste, through its official request to participate in the IF process, has demonstrated a strong initial commitment by government to integrate trade into its national development strategy. The existing challenge is to ensure that high-level support is sustained throughout the IF process. In most countries, the NSC is typically active throughout the DTIS process and one lead ministry is designated to drive forward the IF agenda. Given the different set-up in Timor-Leste, it is important that the NSC becomes active as soon as possible and exerts strong leadership over the IF process.

A number of activities have already been approved through the pre-DTIS funding to strengthen the government's vision and appreciation of how the DTIS can improve the standard of living of the Timorese. This includes a 'Ministerial Working Visit' from the Minister of Commerce of Cambodia, which has been identified as a model DTIS country for Timor-Leste.

- **Intergovernmental coordination and linkages.** Strong intergovernmental coordination over the implementation and monitoring of reforms is important since trade policy involves a range of government institutions and agencies that need to work closely together to ensure that trade effectively contributes to development. As an inter-ministerial committee, the NSC will be the key institutional mechanism to ensure coordination and consensus building across government.

Figure 11.1: Synergies with National Priorities Process in 2010/2011



²³⁵ Based on the Integrated Framework, *Guidelines for the Implementation of the Enhanced Integrated Framework for Least-Developed Countries* (IF, Jun 2008).

In addition to the NSC, it is anticipated that the specific areas of the DTIS (agriculture, trade facilitation, land, business enabling environment, etc.) will link into the National Priorities (NP) process in 2011 and beyond. The NIU will be responsible for lobbying for the inclusion of trade-related targets into the NP process as well as monitoring, supporting, and reporting on relevant trade-related targets. All eleven sections of the DTIS map directly into the 2010 and 2011 NP (see Figure 11.1).

- **Sustained, regular public private dialogue (PPD).** Extensive dialogue with private sector, civil society, and other trade-related stakeholders has been integral to the identification of actions in the DTIS. Also, a number of thematic roundtables (with participation from a broad range of stakeholders) will be held in the lead up to the National Validation Workshop. In particular, the MED and MTCI will be hosting four roundtables which will correspond to the areas in the NP.

Equally important is the need for sustained PPD subsequent to the identification stage, in particular as the government translates priorities in the DTIS Action Matrix into projects and as policies are being driven forward. Options include institutionalizing PPD through the NP process. To date there has been no direct representation of the private sector in NP working groups. However, with the creation of the Chamber of Commerce this year, an opportunity now exists for the NP process to liaise directly with a coordinated private sector representative body (as they have done previously with the NGO community), thus increasing private sector representation in the working groups.

It is important that the NIU actively advocate for the inclusion of private sector representation by way of goals, objectives, and targets in the 2011 NP process. By instilling PPD in the 2011 NP, this will help ensure that PPD is sustained as a government priority as the NP process transitions from an annual to a multi-year planning process.

- **Donor coordination.** As discussed above, the DF will facilitate donor coordination by mainstreaming trade into development partner programming and assisting the NIU in coordinating the donor response to the DTIS Action Matrix. This may involve the organization of donor meetings to consider the funding gaps for priority areas and implementation meetings between government and donors to conduct stocktaking exercises and identify next steps in the implementation process. Advisory Board Meetings also provide a forum to ensure harmonization of donor interventions with respect to the implementation of the DTIS Action Matrix.

C. NEXT STEPS

10. The implementation of the IF comprises of three broad stages with the DTIS falling under the second stage of IF implementation—the diagnostic phase. The follow-up activities, which is the final stage, involves the following steps:

- Validation of the DTIS Action Matrix through a National Workshop;
- Official endorsement and approval by the government;
- Public-awareness building to ensure broad-based support;
- Incorporation of priority TA needs and interventions into donor programs; and
- Integration of trade policy priorities into the national development agenda, including the NP process.

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