FIELD Report No. 20: Assessment of Financial Services for Agribusiness and Rural Farmers in Timor-Leste

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Cover photo by FHI. Rice fields in Timor-Leste.

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Acronyms List

ADB	Asian Development Bank
AMFITIL	Association of Microfinance Institutions in Timor-Leste
BCTL	Central Bank of Timor-Leste
BNCTL	National Commercial Bank of Timor-Leste
BNU	Banco Nacional Ultramarino
BOSS	Business Opportunities and Support Services
BPA	Banking and Payments Authority of East Timor
CCI-TL	Chamber of Commerce and Industry of Timor-Leste
CCT	Cooperativa Café Timor
CEDs	enterprise development centers
CGD	Caixa Geral de Depositos
CICO	"Cash-In Cash-Out"
CRIS	Credit Reference Information System
CU	credit union
CUFA	Credit Union Federation of Australia
DAC	Desenvolve Agricultura Comunitaria
DCA	USAID Development Credit Authority
FHM	Federation Hanai Malu
FSDMP	Financial Sector Development Master Plan
FSP	financial service providers
FSSA	Financial Services Sector Assessment
GAFSP	Global Agriculture and Food Security Program
GDP	Gross Domestic Product
GIZ	German Society for International Cooperation
HIES	Household Income and Expenditure Survey
IADE	Instituto de Apoio ao Desenvolvimento Empresarial
IFC	International Finance Corporation
IGL	Income Generating Loans
ILO	International Labor Organization
IMF	International Monetary Fund
IMfTL	Institute of Micro Finance of Timor-Leste
INFUSE	Inclusive Finance for the Under-Served Economy
JICA	Japanese International Cooperation Agency
MAF	Ministry of Agriculture and Fisheries
MCIE	Ministry of Commerce, Industry and Environment
MDF	Market Development Facility
MFI	Microfinance Institution
MNO	mobile network operators
MR	Moris Rasik

MSME	Micro-small and Medium Enterprise
MTIP	Medium-Term Investment Plan
MTOP	Medium-Term Operational Plan
NGO	Non-governmental Organization
ODTI	Other Deposit Taking Institutions
PFIP	Pacific Financial Inclusion Program
SDP	Strategic Development Plan
SEAPRI	State Secretariat for Support and Promotion of the Private Sector
SERVE	Serviço de Registro e Verificação Empresarial
SME	Small and Medium Enterprises
TRM	Tuba Rai Metin
UBSP	Usaha Bersama Simpan Pinjam (Joint Savings and Loan Groups)
UNDP/UNCDF	United Nations Development Program/UN Capital Development Fund
VCD	value chain development
VCF	value chain finance
WB	World Bank
WBDB	World Bank Doing Business Report

Executive Summary

The "Assessment of Financial Services for Agribusiness and Rural Farmers in Timor-Leste" was commissioned by USAID/Timor-Leste in order to determine definable gaps between current and future "effective demand" and "effective supply" of finance in the Timor-Leste rural agricultural sector, and to analyze the key constraints to expansion of agricultural finance markets.

The work was completed during mid-April to mid-June 2014—including preparation prior to travel, work in Timor-Leste, a preliminary presentation of results prior to departure from country, and production of the final report—by a team of two international consultants contracted by FHI 360 under its FIELD-Support LWA contract with USAID, with logistical support in country by World Vision Timor-Leste.

For a report of this nature, an extensive review was undertaken of a large number of prior and current Timor-Leste government, private sector and multilateral/bilateral donor reports, project documents, national-level strategies, statistical data, and other information related to the multiple subjects affecting agricultural sector finance. The most relevant issues and content of these secondary source documents are cited in the text of the report. All of the Timor-Leste specific documents are listed in the Annexes—as is a supplemental list of international best practice documents on agricultural finance, financial inclusion, agribusiness value chain development, "branchless banking" and other subjects that have been reviewed for their application to conditions in Timor-Leste.

With regard to primary sources, the consultant team held interviews in Dili with representatives of 46 private sector agribusiness companies, commercial banks, microfinance institutions (MFIs), financial cooperatives, government ministries and agencies, the Central Bank of Timor-Leste, donor agencies and NGOs. In addition, direct interviews and focus group discussions were held in field visits in four of the country's twelve districts outside Dili (Liquiça, Ermera, Ainaro, and Aileu) with roughly 100 individual smallholder farmers, farmers organized in producer groups or cooperatives, small scale traders and input suppliers, and smallholder household members of rural village savings and loan groups, as well as with branch office managers of both the National Commercial Bank of Timor-Leste (BNCTL) and Moris Rasik, respectively the principal commercial bank and MFI engaged in rural financial services.

The report's principal findings, conclusions and recommendations are summarized as follows:

A. Findings – Current and Anticipated Demand and Supply of Agribusiness/Rural Finance

<u>Current demand</u>: Current "effective demand" for credit in the agribusiness/rural sector by non-commercial ("subsistence") farm households, small-scale commercial farmers, producer groups/cooperatives, input suppliers, small-scale traders/collectors, end buyers (wholesalers, processors, exporters), and domestic retail outlets is estimated at approximately $2.9 million. This amount is disaggregated by each source of demand (six stakeholder categories, in many cases linked in identifiable agribusiness value chains), as well as by types of credit products including microcredit, seasonal crop loans, and SME short-term working capital and medium-term investment credits. Average amounts of current credit being provided are estimated, and all estimates (numbers of credit recipients, type of

credit, and average credit per recipient) are calculated conservatively based on evidence accumulated and described by the consultant team.

Current supply: The $2.9 million in credit demand is recorded as "current demand met" that is matched by a parallel estimate of current supply of agribusiness/rural finance. Of this amount, $2.2 million is verifiable supply by identified *financial service providers* (FSPs), with the difference of $0.7 million attributed to "value chain finance" (buyer or supplier credit provided within agribusiness chains, most commonly by lead firms/buyers to small-scale commercial farmers linked in supply chains). The $2.2 million is disaggregated by four FSP categories including village-level savings and loan groups/associations (UBSPs), financial cooperatives (credit unions), MFIs, and the government-owned commercial bank (BNCTL). Average amounts of each type of credit multiplied by numbers of credit recipients are calculated based on accumulated evidence collected in Dili and the districts. Important note: Offshore (overseas) working capital and trade finance accessed by Timor-Leste coffee processors/exporters and other trading firms is excluded in this analysis—see endnote for additional detail.[1]

Anticipated demand and supply (gap analysis): The analysis then shifts to medium-term projections of likely increases in agribusiness/rural credit demand, applying a five-year time horizon. Demand by the same six categories of stakeholders is projected to grow, conservatively, from the "current demand met" level of $2.9 million to $9.5 million or approximately three times the current level over the next five years. The calculations and assumptions used in estimating the anticipated expanded demand by each stakeholder category are detailed. Moreover, the assessment suggests that up to 20% of this additional projected demand is most likely "bankable" now, within the prevailing effective demand and supply limitations, only requiring marginal increases in commercial bank (BNCTL) and MFI lending capital to be met. On the other hand, the remaining 80% represents the projected gap that will need to be closed, requiring solutions or mitigation of constraints on both the demand and supply sides of the agricultural finance markets.

Savings (vs. credit) services: Demand and supply of savings/deposit financial services in the rural agriculture sector were also assessed. The "entry level" for first-time savers is the expanding network of informal village-level UBSPs that receive deposits from individual UBSP members as a secure means of savings and then lend out small amounts to individuals in the same UBSP group. The financial cooperatives (credit unions) operate in much the same way. MFIs now source less than half their lending capital from deposits (without restricting lending to depositors only). Commercial banks require any borrower to open a formal savings (bank) account as a condition of receiving a loan. Detailed estimates of current deposit services by all FSPs are provided in the report.

Equity capital: Equity finance is not addressed in this assessment. At the top end of agribusiness chains, lead firms (referred to as "end buyers") appear to have the ability to put together the equity required for new ventures without seeking institutional equity finance partners (in any case, venture capital or equity investment companies are not currently operating in Timor-Leste). However, as the lead firms and/or smaller scale SME agriculture enterprise suppliers, traders or processors begin to require higher levels of debt finance they will normally be expected by banks to show equity leverage (gearing ratios) on about a 1:1 basis, which can become a constraint on business expansion.

B. Financial System and "Financial Infrastructure" Status in Timor-Leste

Core financial sector institutions/laws/regulations: This section, preceding the detailed agricultural finance demand and supply analysis summarized above, reviews the Timor-Leste financial system as a whole, including financial sector policies, laws and regulations, the core institution (Central Bank of

Timor-Leste), the deposit and loan portfolios of the existing financial service providers (commercial banks, MFIs, financial cooperatives, and other entities), "branchless banking" as a financial inclusion solution, and the need for more detailed disaggregation of credit data.

Ancillary "financial infrastructure" and supporting organizations: This section, following the demand and supply analysis, presents and discusses eight key elements that affect all financial markets in Timor-Leste, and their specific impacts on the agribusiness finance markets, including: (1) land tenure issues; (2) movable collateral; (3) third-party guarantees; (4) credit reference information; (5) insurance; (6) company registration and investment incentives; (7) accounting and audit regulations; and (8) the judicial system and contract enforcement. Supporting organizations essential for financial sector policy advocacy are also reviewed.

C. Government and Donor Initiatives related to Agribusiness/Rural Finance

A summary of the government and donor projects and activities that are most relevant to agricultural finance is provided, including: (1) on the government side, the Central Bank, SEAPRI (the State Secretariat for Support and Promotion of the Private Sector), the Ministry of Agriculture and Fisheries, and the Ministry of Commerce, Industry and Environment; and (2) on the multilateral and bilateral donor agencies side, the World Bank Group, the United Nations agencies, the Australia-funded Market Development Facility, the Asian Development Bank, JICA (Japan), and USAID projects.

D. Challenges and Opportunities in Agribusiness/Rural Finance Markets in Timor-Leste

Ten conclusions on the principal challenges and opportunities for agribusiness/rural finance are elaborated, including discussions of: (1) "bankable borrowers"; (2) impacts of government policies and priorities; (3) diversification of agribusiness investments; (4) value chain development models; (5) value chain finance; (6) the BNCTL; (7) the MFIs; (8) the UBSPs; (9) the financial infrastructure; and (10) the key role of the Central Bank.

E. Recommendations – Medium-term Actions to Enhance Demand and Supply of Finance

Finally, eight specific recommendations are made for consideration by policy makers, donors and interested parties on actions to enhance both the current and future finance markets, as follows:

1. The Central Bank of Timor-Leste (BCTL) should form a "Working Group on Agricultural Finance" consisting of representatives of the commercial banks, microfinance institutions and other financial entities as well as representatives of the Timor-Leste private sector, to track both demand and supply of agricultural finance and advise the BCTL on measures to enhance the performance of agricultural finance markets.

2. Market-driven, private sector agribusiness value chains should be encouraged and expanded as the key means to accelerate agriculture and rural development in Timor-Leste, following best practice models of value chain development (VCD), and including diversification of investments in all agricultural subsectors.

3. Value chain finance (VCF), linking commercial banks or other financial service providers with lead firms, commercial smallholder producers, input suppliers, traders and other value chain participants, should be pursued as an integrated credit delivery mechanism, along with the development of financial products geared to the requirements of each category of agricultural enterprise.

4. The National Commercial Bank of Timor-Leste (BNCTL) should be strengthened, including expansions of lending capital, to play a central role in the provision of financial services in the agriculture sector.

5. Systemic improvements in the "financial infrastructure" affecting agribusiness and rural finance markets should be pursued, with near-term priority on the Secured Transactions Law and a Movable Collateral Registry permitting pledges of movable assets as collateral for loans to agriculture sector SMEs.

6. The network of UBSP village savings and loan groups in Timor-Leste, providing entry-level financial services and financial literacy orientation to "non-commercial subsistence smallholders" in rural communities, could be strengthened and expanded up to seven times its current level, extending geographic coverage across the country.

7. On the other hand, care should be taken to extend credit only to "commercial smallholders" deemed to be bankable borrowers, i.e., who can produce and sell at a profit that allows loan repayment, preferably linked to a sustainable agribusiness value chain, and to avoid supply-driven credit models that are not based on proven market demand for agricultural products.

8. Branchless banking, as a means to extend banking services in underserved rural areas using mobile phone technology as opposed to physical bank offices, is not yet economically feasible in Timor-Leste, but the BCTL should welcome branchless banking licensing proposals if and when conditions permit as an element of financial inclusion policy.

Section 1: Background – Stage-Setting Considerations for Agricultural Finance

Timor-Leste economy and current status of the agriculture sector: Data as of the end of 2012 records Timor-Leste non-oil GDP of $1.29 billion, equivalent to $1,175 per capita using a population figure of 1.1 million.[2] Between 70-80% of the population currently depends on agriculture as a primary income source—defined to include staple crops (rice, maize, cassava), tree crops (principally coffee), horticulture (vegetables and fruit), livestock (cattle, pigs, poultry, etc.), and fisheries and forest products. While no more than 25% of national non-oil GDP is derived from agriculture, 64% of the country's labor force (2011 figures) is employed in the sector, and it is agriculture that provides the livelihoods for the majority of Timorese.[3]

In rural areas agriculture provides 56% of annual income, the balance coming from a combination of non-farm wage income (including government employment), social transfers and private remittances.[4] In this context, a more thriving agriculture sector is recognized as the key to rural development and poverty reduction—to be based on increased agricultural productivity through a progressive "transition" from *subsistence* farming with low reliance on inputs to smallholder *commercial* farms selling higher value products in both domestic and export markets.

Timor-Leste domestic private sector and potential investment in agriculture/agribusiness: The domestic private sector is in a nascent stage of development, and new private investment in agribusiness ventures will be the *sine qua non* for expansion of agriculture-derived GDP. Current and future "lead firms" in agribusiness chains (end buyers including wholesalers, processors and exporters) will of necessity constitute the nucleus for agribusiness expansion, value-adding, and sustainable increases in income for new value chain participants including smallholder farm producers, input suppliers, traders, retail outlets and other private enterprises. At present the number of established firms and nascent entrepreneurs that are looking seriously at new agribusiness opportunities is thin, but there are some encouraging signs of activity. For example, new relatively small-scale horticulture chains as well as input suppliers for both crop and livestock producers are starting up, and larger domestic firms are diversifying operations into new products such as cassava flour, animal feeds, and crab farming.

The key common factor for domestic investors (independently or in joint ventures with foreign investors) will be their decisions to "diversify" into potentially profitable agribusiness ventures. This applies particularly to emerging SME-level entrepreneurs who choose to move beyond reliance on small-scale government-financed construction contracts ("Dutch disease" trade-off calculations) and invest in new sectors including agribusiness. An early indicator of movement in this direction will be the formation of formal agribusiness subsector associations – none exist at present – either as stand-alone entities or as sub-sections within the existing Chamber of Commerce and Industry of Timor-Leste.[5]

Government of Timor-Leste economic growth strategies/plans: A very comprehensive "Timor-Leste Strategic Development Plan—2011-2030" (SDP) is now in place as a guideline and blueprint for national development.[6] In addition to a heavy focus on human capital advancement (education, health care and social inclusion) and physical infrastructure (roads, ports, power, etc.), the SDP singles out the "broad-based agriculture sector" as one of three top national economic priorities—along with tourism development and downstream industries in the oil and gas sector. Specifically regarding agriculture, the SDP stresses actions that will help farmers increase productivity "so that our agriculture sector becomes a leading driver of private sector jobs." The SDP vision for 2030 is that "subsistence agriculture will have been replaced by commercial, smallholder agriculture," with Timor-Leste becoming "self-sufficient in food and producing a range of agricultural products for world markets including staples, livestock, fruit and vegetables and other cash crops, as well as forestry and fisheries products."

Other government ministry and agency strategies related to agribusiness and rural development, complementing and in sync with the SDP, include the 2014-2018 Medium-Term Operational Plan (MTOP) and Investment Plan (MTIP) of the Ministry of Agriculture and Fisheries (MAF),[7] and strategies for institutional strengthening of both production and financial cooperatives by the Ministry of Commerce, Industry and Environment (MCIE). A key unresolved issue in the MAF documents is the continuation of subsidized vs. market-priced agricultural inputs, although there is also a strong push toward promoting private sector led value chains. A similar tension exists regarding tighter regulation of "financial cooperatives" (credit unions) by the MCIE, which may hinder the spontaneous expansion of informal UBSP village savings and loan associations as entry-level financial service providers that are not ready or willing to convert into formal financial cooperatives.[8] Finally, four other government agencies/entities under the State Secretariat for Support and Promotion of the Private Sector (SEAPRI) play important roles in agribusiness strategy, viz., the BNCTL (the government-owned commercial bank), IADE (business development services institute), SERVE (business registry) and TradeInvest Timor-Leste (investment promotion agency).

<u>Financial Sector Development Master Plan and "financial inclusion" agendas</u>: The SDP does not directly address the financial system. This subject is thoroughly covered in a more recently published "Financial Sector Development Master Plan (FSDMP)," issued in November 2013 as a "consultative paper" by the Central Bank of Timor-Leste.[9] The FSDMP has a timeframe of 2012 to 2025 and contains a full agenda of action items spelled out in chapters on commercial banks, microfinance, insurance, the national payments system, prudential supervision of regulated financial institutions, and advancement of national financial inclusion objectives. Citing as the starting point the current "low levels of economic production and correspondingly under-developed financial system," the FSDMP sets highly ambitious goals aimed at achieving a fully "banked" population by 2025—key indicators showing a tripling of the number of persons with bank accounts from 245,700 in 2012 to 775,000 (90% of the adult population) by 2025, increases in the Deposits/GDP ratio from 11.9% to 70% and in the Loans/GDP ratio from 30.9% to 100%, an increase in microcredit clients served by MFIs and financial cooperatives from 17,940 in 2012 to 50,000 in 2025, and an increase in insurance premiums (general business insurance plus life insurance) from under $4 million to $60 million over the same time period.

On financial inclusion, the Central Bank is also playing a lead role in encouraging geographic outreach of savings, credit and other financial services in rural areas, with advice and assistance from a Timor-Leste Financial Inclusion Donor Group coordinated by UNDP/UNCDF and the IFC as well as the regional Pacific Financial Inclusion Program (PFIP). The donor group produces a comprehensive annual "Financial Sector Gap Assessment" (last issued in December 2013). Coincidentally, an INFUSE consultant team was in Dili in April-May 2014, compiling an updated "Financial Services Sector Assessment" (FSSA) at the same time as work was being conducted for this report. A comparison of the preliminary FSSA conclusions on the estimated current national microcredit gap, vs. the more narrowly defined agribusiness/rural finance gap calculated in this report, is summarized in Section 2.D.[10]

<u>Recognition of extensive Timor-Leste documentation/reports</u>: A large number of prior and current Timor-Leste government, private sector and multilateral/bilateral donor reports, project documents,

statistical data and other Timor-Leste specific information has been reviewed as part of the assessment. All documents consulted are listed in the Annexes. In addition to the sources already cited above, the most relevant items related to agribusiness/rural finance considerations include the World Bank 2011 "Timor-Leste: Expanding Near-Term Agricultural Exports" report, the Asian Development Bank (ADB) 2013 "Assessment of the National Commercial Bank of Timor-Leste (BNCTL)," the USAID-funded "Desenvolve Agricultura Comunitaria (DAC)" horticulture value chain project documents, the UNCDF and Australian Aid-funded INFUSE (Inclusive Finance for the Under-Served Economy) program reports on UBSPs, credit unions and branchless banking, and the International Labor Organization (ILO) and NGO (OXFAM-Australia and Mercy Corps) reports/studies on agricultural value chains and loan schemes.

Best international practice applied in assessment report: Similarly, selected sources of worldwide experience and best practice in agricultural finance were reviewed and are listed in the Annexes. Among the most directly relevant documents are the GIZ 2011 report on "Agricultural Finance—Trends, Issues and Challenges," the IFC/Global Partnership for Financial Inclusion 2011 report on "Scaling Up Access to Finance for Agricultural SMEs," and the USAID 2011 report on "Rural and Agricultural Finance—Taking Stock of Five Years of Innovations" as well as USAID primers on both value chain development (VCD) and value chain finance (VCF).

Demand vs. Supply in financial market development: Lastly, this report is grounded on a fundamental observation regarding sequencing of demand and supply of agricultural finance. Regardless of the financial service or product discussed, demand will almost always drive supply. As elaborated in the assessment, bankable "effective demand" is the prerequisite for any consideration of finance, e.g., expanded credit for individual agribusiness enterprises, individual farmers, or producer groups or cooperatives linked in value chains, and will dictate the form, volumes and development pace of the supply response by financial sector providers. There is a compelling case in Timor-Leste, based on private sector and economic growth initiatives over the past decade, to continue to place priority emphasis on the stimulation of new private investment (domestic as well as foreign) in agribusiness value chains. As viable and bankable new enterprises are established and begin to seek credit finance from external sources, this will be the primary driver of demand for finance. On the other hand, there do appear to be significant levels of "latent" effective demand, for example, seasonal working capital loans for smallholder farmers, that is currently unmet due to the absence of supply. In these situations the case is also compelling to simultaneously emphasize the expansion and development (geographical reach, new finance products) of commercial banks or other providers to establish "effective supply" (in volumes needed), both to meet the currently defined unmet demand and be pre-positioned to offer anticipated finance to new agribusiness ventures as they gradually come on line.

Section 2: Status of Financial Sector and Agribusiness/Rural Finance as of Mid-2014

This section starts with a brief review of the Timor-Leste financial system as a whole, including financial sector policies, laws and regulations, the core institution (Central Bank of Timor-Leste), the portfolios of the existing financial service providers (commercial banks, MFIs, financial cooperatives, and other entities), "branchless banking" as a financial inclusion solution, and the need for more detailed disaggregation of credit data. The consultant team's detailed analysis of magnitudes of current and anticipated demand and supply of finance for the *agribusiness and rural farm sector* is then presented (Sections 2.B and 2.C)—resulting in identifiable gaps in financial market development and financial inclusion that need to be addressed in ensuing years (Section 2.D). The section ends with a listing and discussion of key ancillary "financial infrastructure" and supporting organizations (e.g., land tenure, movable collateral, insurance, and contract enforcement) that will have direct impacts on rates of expansion of agricultural finance.

A. *Policies, legal/regulatory framework, and financial institutions*

<u>Central Bank of Timor-Leste (BCTL)</u>: Established in September 2011 via the Organic Law of the Central Bank of Timor-Leste, the BCTL is the successor agency of the previous Banking and Payments Authority of East Timor (BPA) that performed central banking functions for the ten preceding years. The statutory BCTL objectives are to maintain domestic price stability and to promote and maintain a stable and competitive financial system based on free market principles. Under the dollarized economy, the BCTL does not operate an independent monetary policy, but the BCTL weighs in as necessary on fiscal policy (public sector finance) as a means to control inflation. In this context, the principal BCTL functions are:

- Licensing and prudential supervision of commercial banks, Other Deposit Taking Institutions (ODTIs), insurance companies, and other entities as established by law;
- Operation and oversight of the National Payments System (bank clearing house); and
- Leadership of financial system development strategies and initiatives, including operation of the Credit Reference Information System, quarterly reporting on financial system performance, and implementation of the Financial Sector Development Master Plan.

Overall, the BCTL receives high marks for its current management of the system—registered in the latest IMF Article IV Consultation (December 2013)—with due recognition of BCTL capacity limitations typical of a newly established central bank institution.

<u>Banks and other financial service providers</u>: As of mid-2014 the financial institutions operating in Timor-Leste consisted of four commercial banks, two microfinance institutions, approximately 27 financial cooperatives (credit unions), two general insurance companies and one leasing company. In addition, a network of 323 UBSP village savings and loan groups operate across all 13 districts of the country (see

details in Annex 5—information provided by INFUSE). The total portfolio operations for each FSP category are shown below; the estimated (quite low) proportions of current loan portfolios destined to agribusiness and rural farm finance are in Section 2.C.

- Commercial banks: Table 1 provides key figures on the operations of the four commercial banks. Three of the banks are foreign-owned. ANZ Bank caters primarily to Australian and other foreign clients operating in Timor-Leste, has a modest number of depositors and borrowers with loan accounts averaging $65,500 per loan, and operates out of a single office in Dili. Bank Mandiri has three times as many depositors, reflecting Indonesia's historic presence in Timor-Leste, but only 33 loan accounts averaging $339,000 per loan serving primarily Indonesian clients, and also operates from a single office in Dili. On the other hand, the Banco Nacional Ultramarino (BNU) – also referred to as CGD (Caixa Geral de Depositos), its Portuguese holding company – has the largest loan portfolio of the four banks (56% of total loans by value), showing 7,904 loan accounts averaging just $12,300 per loan. BNU also has branch offices in ten of the 13 districts and a stated commitment to continue to provide financial services at the lower levels of the economy.[11] However, it is no secret that roughly half of the BNU $97 million loan portfolio is classified as "non-performing" due to major disruptions of loan repayments linked to Timor-Leste's civil conflict in the mid-2000s, which has led to a severe contraction of new lending activity.

For two of the three foreign banks, ANZ and Mandiri, there is very pronounced excess liquidity (defined here as deposits minus loans), and it is unlikely that either bank will change this situation in the near future. By contrast and very significantly for this report, the fourth commercial bank, BNCTL, truly belongs in a separate category, and is treated as such in the report sections that follow. Formally established in January 2011 by the transformation to bank status of the former Microfinance Institution of Timor-Leste (IMfTL), BNCTL shows total deposits of just $23 million but a total of 129,600 deposit accounts averaging $177 per depositor. Similarly on the loan side, the $21 million BNCTL loan portfolio is divided among 17,900 borrowers or an average of about $1,175 per borrower. BNCTL operates in all 13 districts and much of the anticipated expansion of both microcredit and SME credit in rural areas, including loans to commercial agricultural farmers and small-scale rural and urban based agribusiness enterprises, will rely on BNCTL's ability to serve these markets.[12]

Table 1: Commercial Banks in Timor-Leste (September 2013 figures, BCTL)

Bank	ANZ	CGD	Mandiri	BNCTL	Total
Loans in Timor-Leste ($000)	$44,611	$97,098	$11,187	$20,977	$173,873
Deposits in Timor-Leste ($000)	$121,386	$106,175	$147,927	$23,108	$399,136
Loan accounts	681	7,904	33	17,904	- - - - -
Deposit accounts	15,945	54,509	45,635	129,665	- - - - -

- Microfinance institutions (MFIs): Table 2 provides figures for the two MFIs and the financial cooperatives. The critical factor for the MFIs is their ongoing conversion to BCTL-regulated entities pursuant to the December 2010 law on ODTIs.[13] A primary challenge is to satisfy the minimum capital requirements for ODTIs as a condition for their license to raise deposits in excess of $500,000 (and up to a maximum level of $1,000,000). It should be noted in Table 2 that the MFI loan portfolios amply exceed deposits, and the combination of MFI capital and long-term borrowings is and is likely to remain as important as deposits as a source of microcredit loan funds.

- Financial cooperatives (credit unions): As a group, the currently "active" credit unions show relatively minor amounts of both deposits and loans. The history of credit unions in Timor-Leste is uneven, with a sharp decline in recent years as many entities ceased operations. Unlike MFIs or banks, the credit unions rely solely on deposits for lendable funds; they are also regulated by the MCIE and not subject to BCTL intervention.[14]

Table 2: MFIs & Financial Cooperatives in Timor-Leste (September 2013 figures, BCTL)

MFI	Moris Rasik	Tuba Rai Metin	Total (2 MFIs)	Financial Cooperatives
Loan Assets ($000)	4,349	2,925	7,242	3,146
Deposits ($000)	2,356	791 (Dec 2012)	3,146	1,888

- UBSPs: By contrast, the network of UBSP village level savings and loan groups is in an expansionary phase. As reported in detail in Section 2.C, the current outstanding loan portfolio of the combined UBSP groups is approximately $460,000, divided among an estimated 3,200 borrowers.

Branchless banking: Given the fact that close to a third of Timor-Leste's population does not have access to banking services, and also given the widespread use of mobile cell phones throughout the country, much of the policy attention on financial inclusion strategies has been focused in recent years on alternative means of *"branchless banking"* (non-reliance on physical bank branches for conducting bank account transactions). In theory, this development could have positive impacts on rural agricultural finance, as has been the case elsewhere, particularly in several African countries.[15] Very detailed technical and financial feasibility analyses have been undertaken in Timor-Leste on branchless banking options including the use of rural-based "Cash-In Cash-Out" agents (CICO "human ATMs") who would interact directly with clients and use their mobiles to transact cash deposits, withdrawals and payment instructions on their clients' behalf, and/or direct access by clients to their bank with their mobile phones without the need for an intermediary agent. The feasibility initiatives have been commissioned by the Central Bank, donors led by the ADB and UNDP/INFUSE, and the most interested commercial banks (BNCTL and BNU due to their existing outreach in the rural districts). At present, however, the bottom line appears to be that none of the options are likely to gain traction for some time to come in Timor-Leste. IT platforms connecting the banks' core banking systems to mobile phones and agreements between banks and mobile network operators (MNOs) will need to be accomplished. A paucity of plausible CICO agents appears to rule out that option, and most importantly the low volumes of projected use of mobile banking at this time make the business model non-viable. A consensus recommendation is to wait for creative solutions to be put forward by the banks (and perhaps new MNOs) and for the BCTL to forego any drafting of licensing regulations pending the receipt of specific applications from interested parties.[16]

Data disaggregation: BCTL data on credits in the system (limited to the four regulated commercial banks) is not broken down sufficiently by sector, subsector, size of enterprise recipient/borrower, size of credit, type of credit, term of credit, etc. in ways that would permit detailed segregation and analysis. The classification of credits is only reported in broad consolidated categories; for example, "agriculture" accounts for no more than 0.3% of the $173.9 million in total commercial bank credit to the private sector reported for September 2013,[17] probably only capturing credits to small farmers and not picking up any credits to traders, retail shops, processors, etc., i.e., other agriculture value chain actors that are more likely to be classified under "industry and manufacturing" or "services." In any case, BCTL statistics rely on the commercial banks' information that is also likely to have a narrow definition of "agriculture" vs. "agribusiness." More detailed breakdowns of data are unlikely to become available unless insisted upon by the BCTL. This reality makes the supply side of agricultural finance estimates more challenging—reflected in the incremental piecing together of the supply side estimates in Section 2.C. On the demand side (Section 2.B), no data exists at any level of detail (demand by type of agriculture/agribusiness client, type of credit sought, differentiation by agricultural subsector, etc.), thus also requiring "ground-based" interviews with representative stakeholders and extrapolation assumptions to produce reasonably considered demand estimates.

B. Demand for financial services/products

This assessment appears to be the first to look exclusively at finance for the agribusiness/rural farm households sector. Many other assessments have examined demand for microcredit and/or SME credit in the economy as a whole, without disaggregating data for agriculture only. The most recent INFUSE assessment (reviewed in Section 2.D) looks at gaps in nationwide microcredit availability as a measure of progress on financial inclusion. Earlier comprehensive assessments by USAID, IFC and others, cited in the Annexes, were also not specifically disaggregated by sector.

In the assessment below, we segment the Demand side analysis in two principal ways: first, by six (6) categories of individuals/firms ("stakeholders") engaged in agriculture-related enterprises; and second, by types of financial service/products that are currently and likely in the future to be demanded. In addition to looking at each stakeholder category independently, we also consider the linkages of demand among actors in defined agribusiness value chains, including: (a) demand for finance that is sometimes met within the chain (supplier credit or buyer credit provided by one chain actor to another), referred to as "*direct value chain finance;*" and/or (b) demand for finance by value chain actors that is met by external financial service providers (commercial banks, MFIs, or other entities) on the basis of their confidence in the chain transactions, referred to as "*indirect value chain finance.*"

Regarding types of financial services, we segment the analysis into savings and credit products. The credit products are further divided into microcredit short-term working capital or lines of credit and medium-term investment capital. "Microcredit" as a rule is defined as a minimum of $50-$100 up to a maximum of $5,000 per loan. "SME credit" is in excess of $5,000 and up to maximum of $100,000 per loan. Loans above $100,000 are associated with large enterprise borrowers in the Timor-Leste context.

Equity finance is not addressed this assessment. At the top end of agribusiness chains, the lead firms (also referred to "end buyers") appear to have the ability to put together the equity required for a new venture without seeking equity finance partners (in any case, venture capital or equity investment companies are not currently operating in Timor-Leste). Going down the chains to smaller individual SME agriculture enterprise suppliers, traders or processors, as these firms seek higher levels of debt finance they will normally be expected to show equity leverage (gearing ratios) on about a 1:1 basis, which can become a constraint on business expansions.

Effective demand: Finally, in the demand analysis a clear distinction is made between stated (expressed but not actionable) vs. "effective" demand. Effective demand is defined as "bankable" or "viable" demand that could reasonably be expected to be met by one or more financial service providers, e.g., credit demand backed by solid business proposals, clear indications of credible end-market sales projections, sufficient collateral guarantees, or other factors required per the credit analysis models of the different credit providers.

Table 3 summarizes the results of the demand analysis, recording for each of the six stakeholder categories the estimates of effective demand corresponding to (a) "current demand met" and (b) "anticipated" future demand over the medium term (next five years). The evidence upon which we have based the demand projections, and the calculations and assumptions used, are explained below.

Table 3: Effective Demand for Current and Anticipated Agricultural Finance

Stakeholder	Requirement	Current Demand Met	Amount	Anticipated Demand	Amount	Comment
Input Suppliers	Working capital	0	$0	7 x $7000	$49,000	
Non-Commercial Subsistence Smallholders	Savings accounts	2900		16650		
	Micro-credit	200 x $100	$20,000	2000 x $100	$200,000	
Commercial Smallholders	Savings accounts	5900		28350		
	Crop/ Livestock working capital	a) 600 x $170 b) 400 x $250 c) 3240 x 370	$1,400,800	6,000 x 170 1,000 x $300 10,000 x $370	$5,020,000	Sources: a) Savings and Loan Groups, b) Microcredit, c) MSME loans
	Micro-credit for investment	200 x $2000	$400,000	600 x $2000	$1,200,000	
Small Traders	Working capital	320 x $200	$64,000	320 x $250	$80,000	
Wholesaler (End-Buyers)	Working capital	7 x $7,000	$49,000	21 x $7,000	$147,000	
	2-5 year Investment finance	7 x $25,000	$175,000	21 x $75,000	$1,575,000	
Retail Outlets	Working capital	a) 1600 x $35 b) 400 x $380 c) 240 x $620 e) 60 x $2450 d) $320,000	$823,800	a) 1000 x $35 b) 400 x $500 c) 240 x $1000 e) 60 x $4000 d) $525,000	$1,240,000	Stakeholders: a) Rural kiosks b) Rural shops, c) Urban kiosks d) Urban shops,

Stakeholder	Requirement	Current Demand Met	Amount	Anticipated Demand	Amount	Comment
						e) Lines of Credit.
Total Finance			$2,932,600		$9,511,000	

Input Suppliers

Description: Although it is Government policy to provide farmers with free inputs (seeds, fertilizer and agrochemicals) both at present and most likely for the next five years, a niche market exists for agricultural input suppliers to operate on a commercial basis. These suppliers provide inputs to smallholders, mainly vegetable seeds, small quantities of organic and inorganic fertilizer and insecticides, herbicides and fungicides as well as veterinary drugs. In some cases these are provided as part of the stock of a hardware store, but a small number of specialized input supply shops also exist whose current viability is evident from both stakeholder interviews and the fact that new input supply businesses continue to emerge. As of May 2014, there are about five specialized agricultural input suppliers in Dili. The value of their stock at any given time appears to range from $5,000 to $20,000, sourced almost exclusively from Indonesia. At least two other suppliers of similar nature are based outside of Dili. Timorese nationals own/operate a majority of these enterprises, but at least two are subsidiaries of Indonesian supply companies. All such businesses are assumed to operate bank accounts and they utilize wire transfer services to pay for goods.

Financial services required: The critical demand is for working capital liquidity to facilitate more rapid turnover of inventory and increase total sales otherwise constrained by cash flow limitations, which might be turned over up to six times per year assuming cash availability to replenish stocks.

Current demand met: Supplier finance is extended to subsidiaries of Indonesian companies. Locally owned companies have no access to working capital finance.

Anticipated demand: An average credit line of $7,000 per small-scale supplier is estimated. Currently, seven input supply companies could utilize this form of working capital finance, requiring a total credit provision of $49,000.

Evidence: Some input suppliers indicated that their turnover is constrained by cash flow. They are obliged to pay either cash on order, or once a relationship with a supplier had been established, cash on delivery, for all stock. Lacking access to finance from banks or MFIs, these businesses are obliged to expand from profits. This limits the volume of stock that can be carried and they report significant unmet demand as a result. Such businesses reported that a 100% increase in the volume of stock could be absorbed by the market. Subsidiaries of external companies are able to obtain supplier credit from their parent companies and are able to carry higher levels of stock as a result. In the absence of change in the availability of finance these companies can be expected to eventually dominate the market.

Rural Households

Description: The majority of rural households are smallholders that undertake a variety of on- and off-farm activities (HIES 2011 data indicates that 43% of rural income is derived from off-farm activities).

Smallholders do not segregate the income and expenditure associated with the specific enterprises undertaken by household members. Stakeholder interviews confirm that income is aggregated and expenditure is made from a single notional account. From this perspective, the concept of a *subsistence producer* (i.e., a smallholder whose production just matches household food requirements so that the household has no need to access the food market) has little basis in reality. A more appropriate classification and the term used in this report is ***non-commercial subsistence smallholder***, i.e., a household that will generally sell some of its own food production on an opportunistic basis, and may also produce cash crops (such as coffee) for sale to buyers on a commercial basis. By contrast, ***commercial smallholders*** are defined in this report as non-subsistence smallholders that engage in agricultural enterprise activities with the intention of generating a regular commercial surplus that can be consumed or reinvested as required. As of May 2014 we estimate from HIES data that 50,000 households subsist below the poverty line and can be considered as non-commercial subsistence smallholders that undertake non-commercial production. The balance of 137,000 households is deemed to be commercial smallholders. The two categories are considered separately, although in practice there is a gradual transition between them.[18]

Non-commercial subsistence smallholders

Financial services required: Although these smallholders subsist below the poverty line, they participate in the cash economy and require both savings and microcredit facilities.

Current demand met: Savings capacity and small loans are being supplied through UBSP savings and loan groups (see Section 2.C). At the beginning of 2014, at least 323 such groups were active with 7,800 members. Savings are estimated to exceed $500,000,[19] most of which has been disbursed to members as 3,200 loans of $50 to $500, averaging about $150. Some of these savings are by commercial smallholders who will also access credit. Nevertheless, it is estimated that participation by non-commercial subsistence smallholders currently accounts for $185,000 of savings and 1,180 loans averaging $100 in value, of which an estimated 200 may be used for agricultural purposes, equal to $20,000 in current demand.

Anticipated demand: If the savings and loan group methodology could achieve the same degree of penetration nationally as it has achieved in Oecusse,[20] savings group members would be increased by a factor of 7.8. This would imply savings by subsistence households of $1.4 million and the disbursement of up to 2,000 short-term loans of $100 or $200,000 for agricultural purposes.

Evidence: Discussion with existing savings group members and with other farmers revealed a need to save seasonal income from the sale of coffee and vegetables as well as from livestock. Without a means to save cash, many households prefer to purchase rice or livestock from sales revenues as an alternative means of saving. Credit made available by savings groups is used predominantly for consumption (especially to meet the costs of school expenses and funeral expenses, as well as occasionally for food needs). As such, these groups provide a form of insurance as well as a savings facility. Some credit is used for production or trading, especially for the wholesale purchase of goods from Dili for sale through kiosk outlets in rural areas, but the proportion of loans made available for such purposes appears to be small.

Commercial Smallholders

Financial services required: Commercial smallholders are similar to non-commercial smallholders in their requirement for savings facilities and microcredit. In addition however, the focus by commercial smallholders on the production of a regular commercial surplus for sale requires access to working capital for crop and livestock production as well as for microcredit for the expansion of productive enterprises.

Current demand met: Savings capacity and small, 120-day loans are being supplied through the UBSP savings and loan groups. The participation by commercial smallholders is estimated at 63% so that their current savings is of the order of $315,000 and 2,020 members are accessing loans of $170 each. It is estimated that 600 of these loans will be for agricultural purposes, equal to $102,000.

Savings facilities are also being provided by the two MFIs and BNCTL, for whom saving is a conditionality of access to working capital for crop/livestock inputs. Currently the MFIs indicate that they have approximately 1,600 savings accounts from commercial smallholders, while the figure for BNCTL is at least 3,240 and potentially much higher (for example, in Aileu the BNCTL branch manager reported 5,000 savings accounts, equivalent at a rate of one account per household or 62.5% coverage of the district's 8,000 households, many of whom will derive a substantial proportion of their income from agriculture). For now, a total of 5,900 savings accounts are indicated.

As regards crop/livestock working capital, commercial smallholders have accessed a combined approximately 1,000 loans from the UBSPs plus MFIs valued at $202,000, while BNCTL has an agricultural microcredit portfolio of 3,240 accounts totaling $1,198,800, or a total of $1,400,800. A limited number of smallholders require microcredit for investment in new productive assets (e.g., additional greenhouses, livestock housing or handling facilities, mechanization and/or irrigation infrastructure). Many of those making such investments do so using working capital loans of $2,000 or less, and it is only a very small number who have the willingness to access longer term finance for investment. Loans to such producers from the MFIs and BNCTL are assessed from stakeholder interviews to be up to 185 in number with a total value of no more than $400,000.

Anticipated demand: As for non-commercial subsistence smallholders, participation in UBSP savings and loan groups could reasonably be expected to increase by a factor of 7.8, implying savings by commercial households of $2.4 million and the disbursement of up to 6,000 short term loans (average value $170) to commercial households. With increased outreach by MFI's and especially BNCTL, the number of commercial smallholder savings accounts is expected to increase threefold to 15,000, while combined working capital loans by MFIs and BNCTL are expected to increase to 11,000 loans, yielding the total estimate of $5,020,000. Investment credit is similarly expected to increase to 600 loans of $2,000 each, equal to $1,200,000.

Evidence: Discussions with savings and credit groups revealed that the commercial smallholder members made considerable use of these groups to save income from vegetable or other seasonal crop sales. Where a savings and credit group had been linked with a development program promoting commercial production, the levels of saving within the group grew rapidly. While most loans were for consumption, some members did take loans to provide business working capital. Loans were interest bearing (2% per month) so that savings yielded 24% interest p.a. that was divided amongst group members at the end of the year.

As regards seasonal "agricultural loans" Moris Rasik and Tuba Rai Metin indicated that between 3% and 5% of all group and individual microcredit loans on their books were made for agricultural purposes, while BNCTL reported that the number was 3,240. The numbers in all cases are substantially less than the numbers of smallholders who could access the services. In urban areas where physical access to finance should not be a constraint, 22% of household income is derived from the sale of the average household's agricultural production, but the proportion of finance used for agricultural purposes remains less than one quarter of that amount.

This suggests that demand for these products is constrained by other factors—particularly the current paucity of "well-articulated" value chains in which participating commercial smallholder producers, over the course of the next five years, can become linked to expanding and sustainable market-driven demand.

Small Traders and Wholesalers

Description: HIES data for 2011 suggests that the average urban household purchases $15.45 of locally produced foodstuffs each week,[21] while the average rural household spends $3.20 on the same commodities, equivalent to a national weekly turnover of $1.25 million. An unknown proportion of this amount consists of produce sold directly by one household to another bypassing the retail trade. This study has assumed the figure to be 20% reducing the notional working capital requirement for food-based value chains to $1.0 million. Moreover, most of those selling at *Suco* (village) markets are expected to be selling either the produce of their own household or that of their neighbors and to be doing so on the basis of internal value chain finance (supplier credit). It is estimated that this accounts for 75% and 25% of the trade of rural kiosks and shops respectively, reducing the total working capital requirement by a further $200,000 to $800,000. This requirement is divided between *small traders* and *wholesalers (end buyers).*

Small traders

Many small traders of agricultural produce are smallholders who are selling their own household's produce and that of a few other producers. The majority of small traders are operating with limited amounts of working capital selling agricultural produce to Suco stalls, District markets or in Dili. Their number is not easily estimated but is considered to be very large. Almost every rural household will send one member to market once a week to purchase goods and will take produce for sale at the same time, so that the number of small traders could be considered to be as high as the number of rural households, i.e., 150,000. Although most of these "small traders" are opportunistic in their trading and do not treat it as a business, they nevertheless represent a key component of agricultural value chains since it is through their agency that the majority of the agricultural produce in Timor-Leste is brought to market.

There is a much smaller number of traders who operate on a more regular basis, buying from farmers and selling to markets for whom trading is an important source of income and who may require financial services. Most such traders will use public transport to carry the produce that they have purchased to market, although some may group together to hire a "Microlet" vehicle to bring them and their goods into Dili. Within Dili, they may sell directly from their own stalls or some may sell to smallholders. The maximum number of such traders is estimated on the basis of 25 traders per district (with Dili being equivalent to four districts), i.e., 16 x 25 = 400 small traders altogether.

Financial services required: Trust between producers is limited, and in many cases traders will purchase directly from neighboring smallholders for cash and sell for cash as well. A small number selling to retail outlets may provide seven-day credit. In either case, short term working capital to cover the costs of purchase and transport is all that is required by the small traders who do not use specialized equipment or operate from specific premises (other than licensed market stalls).

Current demand met: Most of those selling at Suco markets are expected to be selling either the produce of their own household or that of their neighbors and to be doing so on the basis of value chain finance (supplier credit). Traders purchasing directly from farmers and selling at District markets or in Dili require short-term microcredit of $200 each. At 320 in number, they currently utilize no more than $64,000 altogether.

Anticipated demand: Value chain development is no reason to expect an increase in the number of Suco market traders, which is predicted to remain stable. Urban market trade may increase as a result of increased demand through urbanization more than of any other factor,[22] resulting in an increase in working capital requirement to $250 per firm and a total of $80,000.

Evidence: Discussion with traders selling at District and Dili markets indicated a clear initial dependence upon microcredit to operate their businesses, although in some profitable cases, microcredit could eventually be replaced by the use of own capital. Such traders were operating with small MFI loans of $200 each. The traders interviewed indicated that the finance was readily available through a group loan system and it would appear that the availability of finance to such traders is not a constraint to their contribution to value chain development. It was equally apparent however that the bulk of small trader working capital requirements are met from own resources or supplier credit. This amount appears to be as much as $650,000.

Wholesalers (End Buyers)

This description does not include the wholesalers of coffee, who are considered separately. Wholesalers are considered to be distinct from small traders both in size and in the nature of their business. Specifically they are buying product for sale in large volumes either as exports or through supermarkets. To achieve this they have developed linkages with a number of producers (generally in groups) and may either sell to supermarkets or own those outlets themselves. They have invested in the necessary cold chain infrastructure to bring fresh product to market and maintain specific quality standards. They also provide inputs (especially seeds) to the producers whose output they purchase and in this way they are able to exert a simple form of grower management. The consistency of their presence in the market has allowed producers to justify increased investment in their production systems both in terms of a higher level of inputs and (occasionally) investment in additional productive infrastructure.

Financial services required: Wholesalers have a requirement for core banking services (saving and transfer facilities) as well as for working capital. They pay cash to producers for product that they will often sell requiring use of a short-term line of credit. In addition, the provision of inputs to growers (which will not yield a benefit until the end of the growing season) can require short-term (210-day) credit. Finally, new entrants to the market require finance for the development of the infrastructure (vehicles, warehousing, cold storage) required to achieve efficiencies necessary to compete with imported product. Such finance would generally be of medium term (2-5 years).

Current demand met: There are estimated to be 5-10 wholesalers of domestically produced agricultural products operating in Timor-Leste. All are operational in horticultural value chains and include two supermarkets as well as at least three buyers who sell to supermarkets or other traders in Dili. The volume of vegetables handled by these wholesalers requires working capital of no more than $7,000 (equivalent to 7,000 kg of vegetables per week). This is available through MSME finance supplied by either of the two MFIs or from commercial banks, especially BNCTL. Assuming seven wholesalers, total current working capital demand is $49,000.

The investment capital required to implement a wholesale business within horticultural value chains can vary substantially according to the nature of the business. For this exercise, the cost of a vehicle, warehousing and cold storage are all included, the estimated cost being between $25,000 and $100,000 for each wholesaler, averaging $50,000. In practice, available loan facilities do not provide for more than $25,000 and much of the required capital investment has to be made from own resources, resulting in the estimate of $175,000.

Anticipated demand: It is estimated that over the course of the next five years the number of agricultural wholesalers will increase three-fold to 21 firms, and that demand for working capital will remain constant at $7,000 per firm increasing to $147,000. On the other hand, the level of investment finance required by wholesalers in the future is substantially greater than that currently assumed at present. If value chains are to be developed to a level of competitiveness with imported products, cold chain infrastructure will be required for both vegetables and meats, while testing for aflatoxin will be needed for grains (rice and maize), as well as other laboratory facilities to ensure standards are met. Such investment is expected to require at least $75,000 per firm, or a total of $1,575,000.

Evidence: Discussions with wholesalers indicated that those involved in horticultural value chains were willing to provide inputs (especially seed) to growers to ensure the availability of both the right types and volumes of vegetables at the right times. This can be financed through lines of credit advanced by commercial banks, but this option is available only to large wholesalers such as supermarkets. New entrants are currently unable to access such finance and must use their own resources. The USAID review of horticultural value chains indicates a need for improved access to finance in this area.[23]

Retailers

Description: Retailers sell food products to consumers in Timor-Leste. They include four large supermarkets with multiple outlets, several smaller supermarkets, shops and kiosks and market stalls at the district and Suco level. It is assumed that rural demand is met by shops at a ratio of 1 per 200 households and kiosks at a ratio of 1 per 50 households, i.e., 400 shops and 1,600 kiosks and market stalls across all rural areas, and that 50% of urban demand is met by the supermarkets with the balance by 60 shops and 240 kiosks and market stalls.

Financial services required: While all retailers require basic banking services, their key requirement is for working capital. In the rural areas, weekly turnover is estimated to be $510 per shop and $130 per kiosk, but supplier credit from producers is expected to account for 25% of the shop trade and 75% of the kiosk trade, reducing working capital requirement to $380 and $35 for shops and kiosks respectively. In the urban areas, where supplier credit is less common, working capital requirements are estimated from HIES data to be $2,450 per shop and $620 per kiosk plus $320,000 for the supermarkets in aggregate.

Current demand met: The demand is being met from a number of sources. While the instantaneous demand is considerable, volumes of product are turned over on a weekly basis so that the term of any loan can be short. Savings and loan groups report that some members take out small loans to undertake trading of produce, but the level of demand is not large. Some of the demand at the rural kiosk level is met through MFI loans of $50-100, providing $56,000. In the case of the 640 rural shops and urban kiosks, small business loans of up to $620 may provide up to $300,800 required, while urban shops can access small business loans to obtain the necessary $147,000. These amounts would comprise roughly 15% of the MFI small loans (for rural kiosks), 11% of the small business loans available from MFIs and BNCTL (for rural shops and urban kiosks) and 23% of the MSME loans available from BNCTL (for urban shops). The proportions suggest that existing financial products can readily meet the demands of retail outlets for working capital. For supermarkets, purchases financed through lines of credit are estimated at up to $320,000 when necessary. Adding all figures, total current demand is $823,800.

Anticipated demand: There is little reason to expect a rapid change in demand for working capital. If working capital constraints were eased and rural infrastructure improved, there might be a concentration of resources, leading to a smaller number of larger outlets, with an increased individual requirement for working capital. In the absence of such change, growth in finance demand will be constrained mainly by GDP growth, projected to be 8.5% (ADB, 2013)[24] over the next five years. Use of working capital by the food retail sector could therefore be expected to grow to $1.24 million, and it is expected that much of this will be sourced from small business loans.

Evidence: The primary evidence for the working capital requirements comes directly from the HIES 2011 survey, which provides data on household food purchases and sales of agricultural products. At the same time, interviews with traders and retailers indicated the pronounced need for finance in this aspect of the value chain, where little supplier credit is available. The weakness in this analysis lies in the unknown extent of direct sales from one household to another, which will undoubtedly reduce the overall requirement by the retail sector to some extent.

Demand Summary

Currently approximately $2.93 million of finance is invested in agricultural value chains, an amount that is expect to increase to $9.51 million over the next five years. It is evident that the majority of the current finance is used first by commercial smallholder producers and secondly by retail outlets, and that the intermediate chain of small traders and wholesalers access much smaller amounts. This is in keeping with poorly articulated value chains where producers are themselves operating as opportunistic traders, as opposed to trade being undertaken as a specialized occupation. The significant increase in demand for finance is anticipated to come from the producers, predicated upon the development of consistent markets that will encourage that increased investment, reflected in turn by the projected five-fold increased investment in value chain development by wholesalers/end-buyers.

C. Supply of financial services/products

On the Supply side, we also segment the analysis in two ways: (1) by financial service provider (commercial banks, MFIs, financial cooperatives (credit unions), and the UBSP village level saving and loan associations; and (2) by financial services/products currently offered or with potential to be introduced as viable new products. We also explicitly recognize the internal *"direct value chain finance"* that is occurring within agricultural chains in addition to credit provided by the financial institutions. Services/products are further broken down by: (a) savings, (b) short-term working capital, and (c) medium-term investment credits. Potential for *"indirect value chain finance"* (integrated credit platforms designed by commercial banks to simultaneously finance different participating actors in specific agribusiness value chains), as a rule organized between the bank and the lead firm in the chain and replacing in some degree the within-chain direct VCF, is further discussed in Section 4.

Effective supply: As with the demand analysis, the assessment endeavors to determine the capacities of all financial service providers to expand their "effective supply" of finance, i.e., well defined, pilot-tested, deliverable and profitable saving or credit products at prices (interest rates, fees) and terms that are acceptable and affordable by clients presenting effective demand.

Table 4 summarizes the results of the supply analysis, recording the current actual total supply figures for all clients and the current proportions of the total figures that correspond to agricultural clients. The detailed calculations (best estimates using available data and conservative assumptions) are explained and supported below.

Table 4: Current Supply of Agricultural Finance

Institution	Current Supply	Amount	Supply to Agriculture	Supply to Agritraders	Amount	Comments
UBSP						
Savings Accounts	7,800		7800			
Loans	3200 x $150	$480,000	800 × $152		$122,000	Loans to producers
CUs (Active)						
Savings Accounts	3,000		3000			
Loans	2000 x $300	$600,000	100 x $300		$30,000	
MFIs						
Savings Accounts	16,000		1600			
Group Micro-credit	a). 7500 x $390 b). 1500 x $533 c). 3294 x $325	$4,795,050	a). 375 x $390 b). 75 x $533 c). 100 x $325	d) 320 x 200	$282,725	a). MR-IGL b). MR-Special c). TRM2 d) Small Trader working capital
Individual Loans	1243 x $100	$124,300	36 x $100		$3,600	TRM1
SME Finance	a).1678 x $1,500 b).80 x $5,000	$2,517,000	a). 50 x $1500 b). 0 x 5,000		$75,000 $0	a). TRM3 b). MR SME loans
BNCTL						
Savings Accounts	128,000		5,600			
Women's Loans	300 x $100	$30,000	15 x $100		$1,500	
Agricultural Loans	3240 x $371	$1,202,000	3240 x $371		$1,202,000	
Business Loans	2589 x $1990	$5,152,110	130 x $1990	a) 7 x $7,000 b) 7 x $25,000	$482,700	a) Wholesaler working capital b) Investment capital
Value Chain						

Institution	Current Supply	Amount	Supply to Agriculture	Supply to Agritraders	Amount	Comments
Finance						
Buyer/supplier credit					$733,000	
TOTAL					$2,932,600	

UBSPs

As of December 2013 there were 323 UBSPs located throughout the rural areas of Timor-Leste, although the majority are concentrated in Oecusse (per INFUSE data, Annex 5). Each group has about 25 members and there are 7,800 members overall as of mid-2014. Groups are self-selecting and are set up by NGOs (OXFAM, CARE, Mercy Corps, World Vision and six others) to follow a rigid procedure designed to minimize elite capture of resources, maximize the security of savings and promote loan recovery. Members are obliged to attend monthly meetings and can be fined ($1-2) for non-attendance. There are no fees or costs other than a basic strongbox and bookkeeping materials which are usually supplied by the NGO. For the purpose of this analysis, all UBSP members are deemed to be agricultural in that while all earnings are fungible, the bulk of rural incomes and hence the bulk of the savings contributions are derived from agricultural activities.

Savings: The groups determine a mandatory monthly saving amount ($2-$5 range), although members can contribute more if they wish. UBSPs thus hold 7,800 deposit accounts. Savings amount to at least $50 per month per group, although in practice amounts can be much more than this (some groups save $5-$10 per week) and some groups had accumulated more than $3,000 within the space of two years. Savings earn a dividend derived from the interest charged on loans, which is distributed among members at the end of each year.

Loans: Loans are made from group deposits to selected members on a rotational basis subject to the approval of the group. Loans are for periods of up to four months and interest is commonly charged at a simple rate of 2% per month. Loans can vary in size from $50 to $500 or in some cases $1,000 (most frequently, loans appear to be of the order of $100-200). Roughly 40% of group members (3,200) take out loans, of which no more than 25% (800) are deemed to be loans to finance agricultural activities. The calculation in Table 4 of the 800 loans is based on 200 loans at $100/loan for non-commercial subsistence smallholders, plus 600 loans for commercial smallholders at $170/loan, equal to $122,000.

Evidence: Discussion with different UBSPs revealed that although they all share a common procedure of mandatory saving and group participation, they vary widely in their levels of saving, accumulated deposits and the purposes to which loans might be put. NGOs reported that the majority of loans are used for consumption purposes including school and medical expenses, and ceremonial expenses (weddings and funerals). Some loans are used to cover small business expenses (especially the purchase of goods such as soap, plastic goods and other household items for resale through kiosks). Use of loans for trading in agricultural goods is rare and for use in agriculture directly (e.g., for the purchase of crop inputs, animal feed or livestock) is rarer still.

It was reported that business development is the hardest aspect of the UBSP development process. The direct financial impact of UBSPs on agricultural business development is restricted to groups whose members benefit from significant cash incomes such as the sales of vegetables or coffee. Some groups closer to urban markets are well linked to buyers (in once case to a supermarket) and can save amounts of up to $50 per member per month. In those cases, some loans are used to finance agribusiness, but the proportion of such loans appears still to be significantly less than 50% within those groups and probably a maximum 25% if taken across all UBSPs, thus the calculation of 800 loans of the 3.200 loans outstanding.

Financial Cooperatives (Credit Unions)

Credit unions (CUs) in Timor-Leste are based upon the Principles of Financial Cooperatives established by the World Council of Credit Unions.[25] Organizations with a minimum of 15 members and minimum capital of $1,500 can be registered as credit unions under the Cooperatives Decree Law with the Ministry of Justice. An apex body, the Federation Hanai Malu (FHM), was reformed in 2010 but not all CUs are members (FHM records currently show 27 CUs reporting). The National Directorate of Cooperatives reports 54 registered CUs as of the first quarter 2013, and estimates that 25% are active. Of these, 5 are reported to be functioning effectively, 2 of which are based in Dili. The largest active CU has between 700 and 800 members and a loan portfolio valued at $120,000, while the smallest CU has 260 members.

The CU movement was established under Indonesian rule and has been subject in the past to subsidization leading to proliferation without adequate supervision, and the eventual collapse of the majority of CUs. Those that remain operate at a basic level, i.e., without standardized policies and procedures, regular reporting or good governance. Despite efforts to support CUs, including by the Credit Union Federation of Australia (CUFA) with training, exposure visits, and operational/capital subsidies, assessments found little progress as of mid-2014.[26]

Savings: The Cooperatives Decree Law requires a minimum saving per member of $5/month, but some CUs have reduced this to $2 and some have waived it entirely. The BCTL Financial Sector Development Master Plan indicates that, as of September 2013, 6,316 CU members had total deposits of $1.89 million, i.e., $300 per member, but more than 50% of these members belong to CUs that are not functioning effectively and the amount on deposit is questionable. Dividends derived from interest charged on loans less costs are paid out annually and amount to approximately 1% per month on deposits.

Loans: Loans are made to individuals upon application, subject to approval by a 3-person Credit Committee. The term is generally 12 months but can be up to 36 months. Interest is charged at 2% per month flat rate, or at 3% per month on the declining balance. Loans are classed as "productive", "consumption", or "emergency" with separate application forms for each type. Loan amounts can be up to $5,000 but average $200-$300. The delinquency rate is quoted to be less than 5%, but this would require verification. On the basis that savings are made in proportion to the source of income, it is reasonable to suggest that between 18% and 66% of savings with CUs are derived from agricultural activities in urban and rural areas respectively.[27] This would imply that up to 3,000 depositors in the active CUs are saving some proportion of their agricultural income with CUs. In terms of loans, however, the statistics from other sources suggest that no more than 5% of loans are made to agribusinesses. On that basis, and the estimate of a maximum loan portfolio of $600,000 distributed in loans of $300 each, it is estimated that 100 loans might be made by the CUs to the agricultural sector, or a total of $30,000.

Evidence: It is accepted that the amount of data available on the CUs is limited. Reporting is sporadic and a number of the CUs that reported in 2011 and 2012 have recently ceased operations (one of the largest, set up mainly for civil servants, collapsed in the last three months as a result of mismanagement of funds). Two aspects of CUs are however evident from interviews with CUFA and the FHM. First, the contribution made by the CUs to the financial sector is very limited. Official statistics would rank them some eight times larger than the UBSPs in terms of membership and deposits, but FHM data would suggest that they are in fact comparable in overall numbers, and much more limited in terms of geographic scope and accessibility. Secondly, the need for a $1,500 capital requirement constrains the setting up of CUs. This may be advantageous, since at present they require much greater oversight before they could be considered for development as a source of finance for the agricultural sector.

Microfinance Institutions

There are two MFIs operating in Timor-Leste, Moris Rasik and Tuba Rai Metin (TRM). Prior to independence there were several more and recently a third, the Institute of Micro Finance of Timor-Leste (IMFTL), became the publicly owned National Commercial Bank of Timor-Leste (BNCTL). The two remaining MFIs both hold customer guarantee savings of over $500,000 (and under $1,000,000) and as such fall under the BCTL ODTI Licensing and Supervision Regulations introduced in 2010. They are of similar size and serve a similar cross section of clients. Both rely upon external finance as well as deposits for their funds.

Moris Rasik (MR) applied in 2011 to become an ODTI but has yet to meet all conditions to receive the license. In the past it has faced problems of declining portfolio quality and a high client dropout rate, as well as outdated management information systems. MR is now in process of correcting these issues, and appears to be in a period of stabilization. Nevertheless, it is unlikely to meet its 2015 targets set in 2012 for either members (20,000) or borrowers (18,500). MR is active in all 13 districts with additional sub-units under development in Baucau, Aileu and Ermera. The operations of MR are strongly influenced by the principles of the Grameen Bank and group lending dominates its loan portfolio. Products offered include:

Savings: Two types, denominated **"**Open Access" and "Loan-linked Security Deposits." Open Access allows members to deposit very small amounts with MR during weekly meetings to build their savings to reach the minimum 20% required for obtaining a loan. Members do not earn interest on Open Access savings. MR currently holds about 1,000 Open Access accounts, and once 20% of the required loan amount has been mobilized they can be converted to Security Deposits. MR then pays interest at 4% p.a. on the monthly average balance of Security Deposits. MR currently holds 9,000 Security Deposits, and the total value of all deposits is reported to be $2,299,846.[28]

Loans: MR offers 3 loan products – 2 group-based products ("Income Generating Loans-IGL" and "Special Loans") and one individual product ("SME Loans"). The relative proportions of the loan portfolio are: IGL (69%), Special (22%) and SME (9%) – see full details of each product in the Annexes. Access to loans is based upon performance. The IGL requires a group of 5 members who upon first application can borrow up to $75 per member over a period of 25 weeks. Upon successful repayment, the group can borrow increasing amounts and for longer terms, reaching $500 each in round 4, after which the group is allowed to access the Special Loan facility if it wishes, again with increasing amounts and terms. SME loans are made to individuals on the basis of a business plan and adequate savings deposit. The highest SME loan made to date had been of $13,000.

MR indicates that microcredit loan repayment performance has generally been better than 98% but that SME loans are proving problematic with a high rate of default. They note that borrowers do not stick to their business plans, in which event MR has no effective recourse, lacking any form of lien other than the deposits held. For this reason they plan to implement a group-based loan product of the same value in the future.

Staff also noted that up to 5% of all loans were taken for agricultural purposes, although no SME loans had yet been used for agribusiness. On the basis of this estimate, MR is supplying loans totaling about $190,000 to 450 agricultural clients.

Tuba Rai Metin (TRM) is also in process of becoming licensed as an ODTI. Although smaller than Moris Rasik, TRM is expanding and now has branches in each district. TRM is also less influenced by the principle of group lending and although its 3 loan products were once all classified as group loans, as of mid 2012 only 53% of loans were made on this basis.

Savings: TRM offers three types of saving accounts: a) Voluntary Savings accounts in which depositors save money without reference to any loan; b) Compulsory Savings accounts, which act as the cash collateral for loans; and c) Fixed Term Deposits, which are unrelated to loans and pay interest. As of the end of 2013, 6,215 clients had deposited $1.2 million with TRM, i.e., $196 per depositor.

Loans: TRM offers three loan products: "TRM1" consists of small micro loans of $50-$150; "TRM2" comprises community based group loans of $150-$500 with mutual guarantees; and "TRM3" offers large individual loans of $600-$3,000 for the expansion of businesses that must have been in operation for at least one year. As of mid-2012, the proportions of these loans were TRM1 (20%), TRM2 (53%) and TRM3 (27%) – full detail in the Annexes. Although data was not available for 2014, at the end of 2013 TRM had a total loan portfolio of $3.71 million and 6,215 active borrowers, i.e., an average loan size of $597. TRM management estimated that only 3% of loans were used to finance agribusiness, implying that roughly 200 borrowers were taking loans for agricultural purposes with a total value estimated at $120,000.

Insurance: Both MFIs cooperate with one of the two insurance companies operating in Timor-Leste to implement insurance as a conditionality on all new loans disbursed. The insurance covers the outstanding loan balance on the death of a borrower and provides a lump sum payment of $500. Death of a spouse results in a lump sum payment of $250 but the loan must still be repaid. The cost of the premium is added to the borrower's charges.

Evidence: Discussions with management of both MFIs revealed an interest to lend more to the agricultural sector, but it was equally evident that the vast majority (>95%) of loans are used for non-agricultural purposes. This may be partly due to issues of access, in that neither MFI has yet reached out significantly beyond the District centers and many rural smallholders find it physically difficult to interact with the MFIs (especially to make weekly loan repayments). It is also possible that the repayment conditions of most MFI loans (not allowing for seasonal income flows of farmers) discourage smallholders who know that they may not get a return from their investment for up to 4 or even 6 months and will therefore not be able to make immediate repayments. On the other hand, the MFIs' classification of loans may omit those used for other agribusinesses in that loans required for the trading of vegetables and other agricultural products are classified as "trading" rather than "agricultural" loans.

What was most evident, however, was the reluctance of at least one of the MFIs to move into the provision of larger (>$5,000) individual loans unless measures could be taken to improve the security that could be taken against them. Thus while the MFIs do have products that while not entirely suited to the agricultural sector could be used by some of them, they are reluctant to provide the larger loans required by those who might seek to develop agricultural value chains.

BNCTL

As a government-owned bank, BNCTL is able to adopt strategies that might not be considered by privately owned banks. In March 2014 the bank received an additional $10 million funding from the Government, and BNCTL benefits as the main agency for government payroll distribution.[29] It is now adopting an aggressive strategy to provide services to new clients. It has established 13 branches (in all districts) and reaches out to clients both through mobile banking units enabling bank staff to reach clients by motorbike or vans to collect deposits/loan repayments.[30] The current status of the BNCTL portfolio is as follows:

Savings: As of May 2013, BNCTL reported 128,000 depositors and total deposits of $24.1 million, i.e., an average deposit of $190. The bank has just begun to take interest bearing time-based deposits. Other deposits can be withdrawn on demand except for those used as collateral for loans.

Loans: As of May 2013, the total amount on loan was $19.7 million, distributed over 17,000 borrowers, i.e., an average loan of $1,160. BNCTL provides four products: a) "Women's loans"; b) "Agricultural seasonal loans"; c) "Payroll loans"; and d) "Business (MSME) loans." A fifth product for the rehabilitation of coffee plantations is in development but not yet finalized. It is necessary to have an active savings account with BNCTL in order to take out a loan.

Women's loans are made exclusively to groups of women who each borrow $80-$1,000 for up to six months. Interest is charged at 18%; the loans are used predominantly to finance micro-level trade and account for less than 2% of total loans.

Agricultural loans account for about 20% of total loans. They are made to groups of about seven farmers for a period of nine months and average $25-$300 per group member, although they can be up to $2,000 in value. Interest is charged at 18% over the term of the loan. In most cases agricultural loans are used as working capital, although in some instances it was reported that small investments (e.g., additional greenhouse tunnels) were also made using this facility.

Payroll loans account for 60% of total BNCTL loans and are an important part of BNCTL business. The payroll loan depends upon employment (mainly by government) and effectively provides an advance against wages, which are assumed as guaranteed by contract of employment. Payroll loans are reported to be used mainly for construction (70%) or consumption purposes such as school expenses or the purchase of furniture, but rarely for business development.

SME loans represent about 20% of total loans. They can range from $500-$25,000 in size and have a maximum term of five years, although two years is more common. Interest is charged at a rate of 18% p.a. These loans are not available as start-up capital for new businesses, but as capital for business expansion. A business plan and the taking of business advice from IADE are a conditionality of these loans. SME loans are commonly taken by small businesses such as carpenters, restaurant owners, mechanics, cement block manufacturers as well as fish traders and agricultural traders. The average loan size is $525, although some businesses have accessed the maximum amount of $25,000.

Evidence: As of mid-2014, and not counting payroll loans, BNCTL management reports 300 women's loans averaging $100/loan valued at $30,000, 3,240 agricultural loans averaging $371/loan valued at $1,202,000, and 2,589 business loans averaging $1,990/loan valued at $5,147,000.[31] BNCTL also reports that both women's loans and business loans are rarely used for agricultural purposes. On the basis that BNCTL clients would mirror those of MR and TRM in their sector distribution it is estimated that 5% of both the women's loans and business loans would be used for agricultural purposes, equivalent to just $1,500 for women's loans and $258,700 for business loans.

Other Commercial Banks

In addition to BNCTL there are three foreign-owned commercial banks active in Timor-Leste: Banco Nacional Ultramarino (BNU), ANZ Bank and Bank Mandiri. The BNU is the oldest bank in the country with branches in ten districts other than Dili. As such BNU is best placed to expand into agricultural finance, pending internal improvements within the bank. ANZ Bank operates out of Dili and provides investment finance to one large wholesaler of coffee as well as lines of credit to some supermarkets selling vegetables. Bank Mandiri does not engage in agricultural finance.

The limited participation by the foreign commercial banks in agricultural finance reflects the high costs of servicing large numbers of small loans in an environment where physical access is difficult. All of the banks recognize the potential of branchless banking to reduce these costs. Nevertheless, they consistently report other more fundamental constraints to agricultural lending including lack of collateral (real and movable), low standards of accounting practice, low financial literacy rates among rural smallholders, and most of the other "financial infrastructure" weaknesses summarized in Section 2.E. Until such time as these are satisfactorily resolved, these three banks appear reluctant to engage in agricultural lending and they are not included as current credit providers in Table 4.

Value Chain Finance

The remaining amounts in Table 4 (Current Supply) represent quantities of current *direct (internal) value chain finance* in the agriculture sector. Cross-referring to Table 3 (Current Demand column), the direct value chain finance now consists of the $64,000 in small trader working capital, the $49,000 in wholesaler/end buyer working capital, and the $175,000 in wholesaler/end buyer investment finance. To these figures we have added another unidentified $733,000 in direct value chain finance, which then balances total current supply and total current effective demand at $2,932,600.

The $733,000 most likely corresponds to additional use of own funds and/or supplier credit by retailers and traders. The apparent discrepancy might be explained first by the fact that a substantial proportion of agricultural production will be sold directly by smallholders to neighbors, without the need for a trader or trade finance. Secondly, the movement of agricultural products along a value chain is very often facilitated by the use of own finance and/or within-chain supplier credit. While retail outlets would appear to be able to source most of their credit requirements from financial institutions, it is likely that a significant proportion of rural kiosks (possibly 75%) and rural shops (25%) use and will continue to use own finance (including informal loans from friends and neighbors) and supplier credits to obtain and replenish their stocks. The activities of small traders also appear to currently depend significantly on own resources, less so on supplier credit as only close friends or relatives will trust another household to sell their goods. This level of internal value chain finance is a reflection of the current informal nature of the value chains, that can be expected to gradually change toward reliance on credits from the formal financial institutions as value chains develop and the markets for *indirect (external) value chain finance* evolve.

D. Gap Analysis

Charts A, B and C below display respectively the Current Demand Met, Current Supply, and Anticipated Effective Demand for agribusiness and rural credit finance, broken down into their component parts.

Chart A: Current Effective Demand

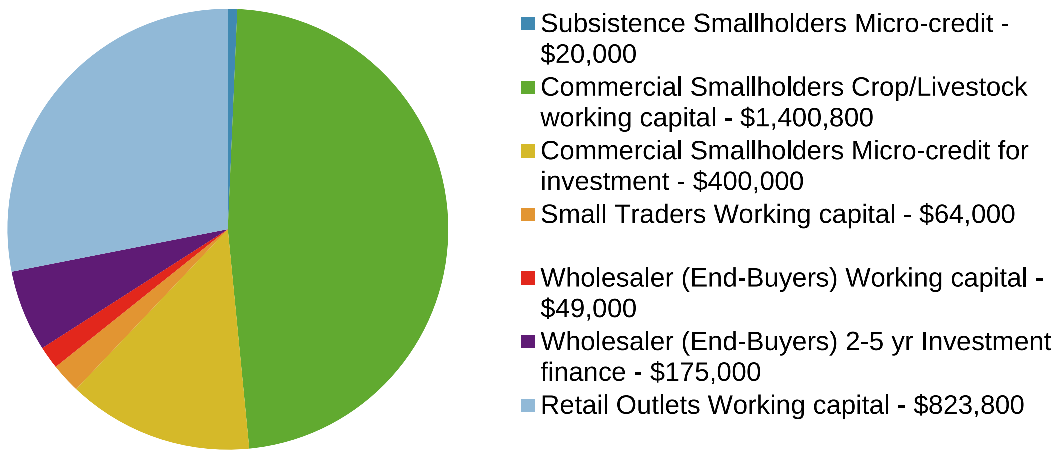


Chart B: Current Supply of Finance to Agribusiness

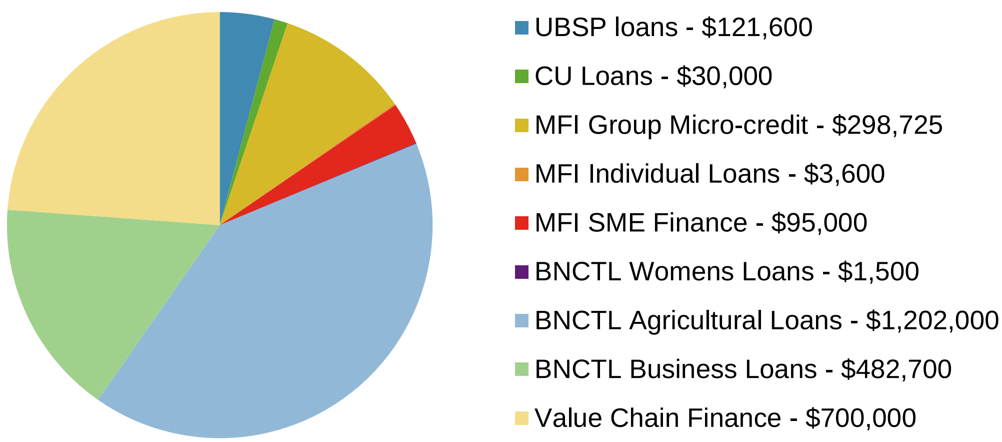
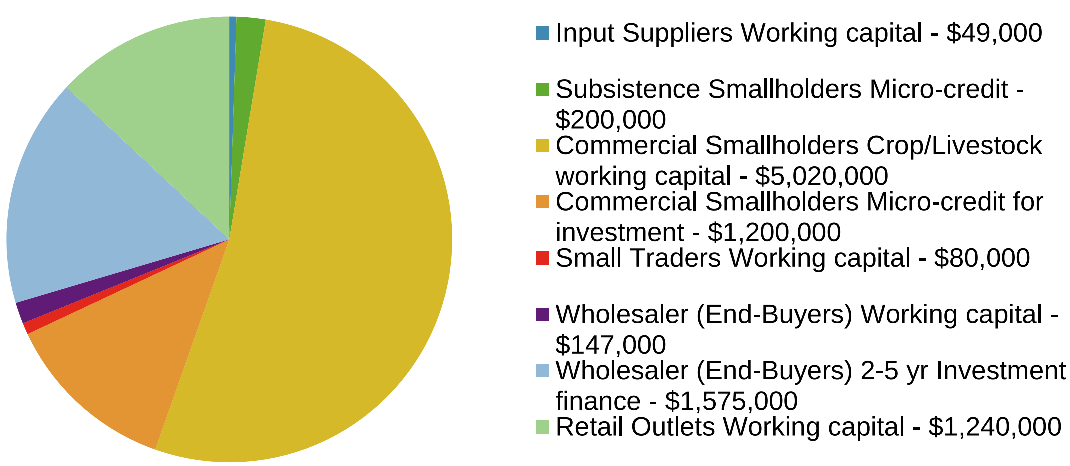


Chart C: Anticipated Effective Demand



Demand by stakeholders is projected to grow, conservatively, from the "current demand met" level of $2.9 million to $9.5 million or approximately three times the current level over the next five years. Moreover, the assessment suggests that up to 20% of this additional demand is "bankable" now, within the prevailing effective demand and supply limitations, only requiring marginal increases in commercial bank (BNCTL) and MFI lending capital to be met. On the other hand, the remaining 80% represents the projected gaps that will need to be closed, requiring solutions or mitigation of constraints on both the demand and supply sides of the agricultural finance markets.

Some Specific Gaps by Stakeholder Group

Input Suppliers: The gap for input suppliers is clear. Liquidity finance permitting accelerated turnover of input inventories can be met with access to lines of credit by a commercial bank, most likely BNCTL. The key appears to be the removal of the collateral constraint on the supply side, specifically through the movable collateral registry that may be in place as early as 2016.

Non-Commercial Subsistence Smallholders: There is a gap between the savings and loan needs of this group. That these households would benefit from savings accounts is clearly demonstrated by the success and sustainability of the existing UBSPs. Even though these institutions save only small amounts, they clearly meet a need of smallholders, in terms of providing a mechanism for saving and microcredit that serves as a source of finance both for economic activities and as a form of insurance for emergency expenditure or expenditure on high cost household items.

Commercial Smallholders: While commercial smallholders are those who are willing to invest in the regular production of a commercial surplus for sale, not all such households will do so from credit. Many will prefer to use their own resources rather than take the risk of borrowing money that they might not be able to repay. This was regularly observed in the field, where farmers also noted the difficulty of accessing formal financial institutions and the need for immediate repayment of loans as being two other reasons for the limited uptake of finance. What is evident is that while there are issues of access, repayment and literacy that may constrain MFI lending to agriculture to between 3% and 5% of the total MFI portfolio, the same issues do not constrain MFI lending to other sectors of the economy, suggesting that there are other factors (such as loan repayment schedules not geared to seasonal crop production) contributing to the reluctance of farmers to borrow from these institutions. By contrast, BNCTL reports that 20% of its portfolio consists of agricultural loans, reflecting a more proactive approach to agricultural lending. Part of the observed reluctance may be due to the perceived risk in investing in poorly articulated value chains, where buyers are accessed through weekly visits to markets rather than by regular visits from the buyer to collect produce for sale. This would also partly explain the larger agricultural portfolio of BNCTL, which has positioned itself to provide external value chain finance in horticulture and other viable chains.

Small Traders: In the case of traders, those engaged in regular trade as a business (as opposed to the sale of own production to realize cash to meet household needs) report no problems in obtaining the credit that they require to operate their businesses, either from UBSPs, CUs or MFIs. In all cases, the interest rates are deemed reasonable and the volumes of finance required by each trader (of the order of $200) can be readily met. The evidence from interviews suggests that they see no gap in the finance available to them. What might be a "gap" is the difference between the very low volume of agricultural products moving through commercial trading channels and the total volume of such products being consumed. The nature of the substantial gap between estimated and effective demand lies in the nature of the trading process itself, which relies more upon regular household visits to markets than on services by specialized traders. The former activities now depend almost exclusively upon own finance and internal supplier credit, so that the potential for increased demand for credit from financial institutions will again depend upon value chain development more than any other factor.

Wholesalers/End Buyers: Among wholesalers there is a real constraint in terms of the availability of finance, which is limited by the maximum size of loans available from the MFIs and BNCTL, and by the reluctance of these providers as well as the foreign commercial banks to extend MSME finance in the absence of adequate collateral. Currently the amount of finance advanced to wholesalers, estimated at $175,000, may be less than half of what is now demanded. Future expansion of the wholesale sector is projected to increase this requirement to $1.58 million, but a financial market of this size will not be forthcoming without viable new agricultural chains and means to effectively guarantee bank lending.

Retailers: At the retail level, it would appear that finance is partly met from own finance and limited supplier credit and that the balance required by shops and kiosks is adequately available from UBSPs, CUs, MFI's, and BNCTL. Relatively minor increases in credit by the financial institutions should be sufficient to cover the gap between current and anticipated demand.

Comparison with Other Gap Analyses

This assessment finds that with the exception of savings facilities for smallholders, and finance for wholesalers, most stakeholders within agricultural value chains are able to access adequate domestic financial services to meet their current finance needs. The $6.6 million gap between current and anticipated effective demand (five year horizon) is a relatively low figure when compared to other analyses that estimate much larger financing gaps, especially with regard to supply and demand of microcredit. For example, the most recent report (draft version, May 2014) prepared as part of the INFUSE-sponsored Financial Services Sector Assessment (FSSA) for Timor-Leste, concludes that there is a microcredit gap of up to $33 million, based on an assumption that many (not all) households above the poverty line will require access to microfinance. This assessment—focused particularly on the rural agriculture sector—did not find this to be the case among smallholders. Where smallholders are able to link with an articulated value chain and an assured market for their products, they appear confident enough to seek microcredit for additional inputs and in some cases SME credit for business expansion. This assessment found such smallholders to represent a small minority of producers, close in proportion to the 5% of agricultural loan applicants observed by the MFIs. Once this difference has been accounted for, the level of finance required per household is actually quite similar across both assessments at approximately $300 per micro loan.

E. Key "financial infrastructure" and supporting organizations

Eight key ancillary "financial infrastructure" elements that affect all finance markets in Timor-Leste are recorded and discussed below. Their specific impacts on both the demand and supply sides of agribusiness and rural finance are highlighted, with indications on needs for improvements that will influence the expansion of financial services for the agriculture sector.

Eight is an arbitrary number of categories, chosen as the subjects that appear to carry highest priority for action. The categories reflect the more urgent agricultural finance constraints expressed in interviews and reported in analytical documents including U.S. Embassy and IFC investment climate statements and the most recent World Bank "Doing Business Report 2014 for Timor-Leste" (WBDB).[32] In the latter report, Timor-Leste is currently ranked 172nd out of 189 countries in the WBDB index, the low ranking due particularly to bottom scores on Registering Property, Enforcing Contracts, and Resolving Insolvency. Real property (land) and contract enforcement issues are discussed below; regarding insolvency, Timor-Leste does not yet have a commercial code or bankruptcy law—which may be advanced as part of the new Secured Transactions Law now under development.

(1) Land tenure: Real property and land ownership are highly complicated and politically sensitive issues. In urban areas, super-imposition of competing claims is a commonly cited problem, resulting in insecure property titles, an inability to register mortgages against loans, and a brake on business development (for example, securing long-term land leases for factories). In rural areas, where traditional land use customs predominate, agribusiness investors are as a rule unable to acquire or lease land for nucleus farms, and small rural farm households with rights to land use choose not to invest significantly in on-farm infrastructure improvements, contributing to the slow pace of agricultural development.[33] While a package of land laws was passed by Parliament in 2012, they were subsequently vetoed and new drafts are still being debated—one of the basic questions being how to clearly separate "state land" from "community land." In this context, land and real estate (immovable property) cannot be relied on as collateral for commercial bank loans, leading to a search for other forms of collateral guarantees (next two items below). [Note: It is important to record that Timor-Leste is not alone on this issue. Rural land assets worldwide tend not to be suitable as loan collateral; even if registered with clear title, there are cultural and social impediments making it difficult to foreclose and sell rural land.][34]

(2) Movable collateral: "Secured Transactions" laws and "Movable Asset Registries," otherwise referred to as collateral laws/registries, are being put in place in most countries and in fact are a primary measure used in the WBDB "Access to Credit" index. Viable secured transactions systems are characterized by ease (low cost) of pledging equipment, inventories, accounts receivable (purchase orders), anticipated crop sales, and other priced assets as collateral against bank loans, including importantly a clear order of priority (for the lender) to repossess assets in case of loan defaults. A draft secured transactions law for Timor-Leste has been in development for several years, assisted by the ADB's Pacific Private Sector Development Initiative—the latest information is that further amendments to other legislation (most likely company and/or bankruptcy laws) will be required.[35] For potential application to agribusiness finance, based on the present assessment there is a consensus on both the demand side (small-scale SME inventory suppliers, retail shops, commercial farms) and the supply side (BNCTL, ANZ and BNU commercial banks) that use of the contemplated movable collateral registry will aid in expanding agriculture-related SME credit.

(3) Third-party guarantees: Except for personal guarantees by associates of an applicant borrower, mentioned particularly by BNU as its "default" form of collateral, no other third-party guarantee options are currently available in Timor-Leste. Donor-backed institutional guarantee facilities such as the USAID Development Credit Authority (DCA) are not present. If offered, DCA guarantees would normally be on a 50% partial risk coverage basis for qualified (solvent) commercial banks with excess liquidity that seek to "buy down" risk in lending to a new category of borrower, e.g., small-scale commercial farmers. One exception to third-party guarantees in the current market is the microcredit group lending model, used by the two MFIs in which the borrowers guarantee each other's loans; such cross-guaranteeing among otherwise individual microenterprise or SME borrowers rarely works and is not present in Timor-Leste.

(4) Credit reference information: The public credit information registry (Credit Reference Information System or CRIS) was established in 2009 and is operated by the BCTL. The four commercial banks are mandated by law to provide the CRIS with credit data on all borrowers receiving bank credits, which the other banks can then access as needed for credit analysis purposes. Feedback received is

that the CRIS currently has about 45,000 entries (individuals plus corporations) but only about 600 requests per year for credit information records (primarily by BNCTL and BNU). No data is yet in the CRIS from other creditors such as utilities or mobile phone operators. The system will be relevant in rural areas as the numbers of small-scale rural borrowers increase, and as regulated MFI ODTIs are required to participate. Curiously, one of the MFIs reported no interest at this point in access to the CRIS, citing no current concerns with over-indebtedness among its credit applicants.

(5) Insurance: For agribusiness and rural farm activity, two types of insurance are particularly relevant. Larger and medium-size agribusinesses require *general insurance* for buildings, casualty and public liability risks, as well as to support applications for loans where insured property is required as collateral (highlighted by BNU as a major lending constraint). Two Timor-Leste insurance companies are now offering general insurance products, principally in Dili. On the other hand, *crop insurance* against weather-indexed or other risk parameters, often mentioned as desirable, is not economically feasible and not available (in Timor-Leste or elsewhere)—crop insurance markets worldwide are almost uniquely focused on large mono-crop agribusiness operations where insurance premiums can be accurately priced against risks. One special product, provided on a mandatory basis to MFI microcredit borrowers including rural clients, is the "Credit Life Plus" micro-insurance policy covering unpaid microcredit balances in the event of a micro-borrower's decease.

(6) Company registration/investment incentives: Very recently, in June 2013, the government established Timor-Leste's first company registry known as SERVE (Serviço de Registro e Verificação Empresarial) or the Company Registry and Verification Service. While some functions were previously managed by other government entities, SERVE is set up as a "One-Stop-Shop" to facilitate all business registration, licensing and other formalities. SERVE district-level offices are to be co-located with the district offices of IADE (Instituto de Apoio ao Desenvolvimento Empresarial), the national business development services agency—discussed further in Section 3. The SERVE director reports very few agricultural enterprises among companies that have registered thus far, about half of which are in the construction sector. Another agency, TradeInvest Timor-Leste, manages the government's investment incentives programs for both national and foreign investors. Since 2006, 164 "investment certificates" providing tax credits and import duty exemptions have been issued, of which 111 have been for foreign investors. However, very few (no more than five) certificates were for agribusiness investors, and the director of the agency reported that those investments have generally not gone forward due to land lease issues or other problems.[36]

(7) Accounting/audit regulations: A fundamental constraint in lending to all sectors, including agribusinesses, is the lack of adequate financial accounting and record keeping practices, particularly among SMEs. This factor was stressed by the commercial banks, who need to comply with BCTL bank supervision credit risk parameters in addition to making informed decisions on credit applications. MFIs, as they "scale up" to serve SME clients, expressed the same concerns. Firms, banks (and the tax authorities) have a shared interest in strengthening accounting practices, and there is a consensus that improvements will correlate with higher volumes of lending. The BCTL recommends that the banks, private sector, universities and business services organizations work on a priority basis to put in place an educated business sector served by an effective accounting profession in Timor-Leste.[37]

(8) Judicial system/contract enforcement: There is a universal consensus among all interlocutors that lack of enforcement of contracts in Timor-Leste is the basic constraint affecting all business and financial transactions. Phrases such as "contract enforcement is non-existent" or "there is no investment protection" are frequently expressed. The justice system—police, prosecutors, and

courts—is still evolving and short-staffed, and the court system lacks specialized technical expertise (qualified judges and attorneys) for commercial dispute cases.[38] The 2014 WBDB report gave a "zero" score for Timor-Leste on contract enforcement, recording a current 51 procedures and 1,285 days required to file and serve a case, proceed to trial and receive a judgment, and enforce the judgment. The costs of the process for the claimant were recorded at 163% of the value of the claim, revealing graphically the futility of seeking court action.[39] In these circumstances, agribusiness expansion and finance as well as general investment in the economy will be discouraged, both among larger firms and the banks, but at lower levels as well—for example, speedy trials are essential for small enterprises, which may lack the resources to stay in business while awaiting the outcome of a long court dispute.

Finally, with regard to supporting organizations, all countries attempting to improve the financial system's response to private sector development requirements rely to significant degrees on organized advocacy groups such as national chambers of commerce, industry groups, commercial bank associations and other professional organizations such as accounting and bar associations. These are the interest groups directly affected by the financial system infrastructure, the quality of legislation and implementation/enforcement of laws and regulations, and specific government financial sector policies. In Timor-Leste, there are few such advocacy groups and more will be needed to keep up the pressures for reforms. The Chamber of Commerce and Industry of Timor-Leste (CCI-TL) is in an early phase of organization. There are no formal agribusiness associations, such as the typical associations of coffee exporters found in other coffee-producing countries. While there is an informal commercial bank association that appears to be emerging as a formal entity, the former microfinance association (AMFITIL) no longer functions due to the reduction of the microfinance players to just two MFIs. On all fronts, more work is needed.

Section 3: Government and Donor Initiatives Related to Agribusiness/Rural Finance

No past or current projects in Timor-Leste have addressed agricultural or rural finance per se. On the other hand, there are many prior, current and planned government and donor initiatives addressing the multiple factors that impact agricultural finance, the most relevant of which are briefly referenced as follows:

Government initiatives

- BCTL: The leadership roles of the BCTL have already been highlighted. Implementation of the Financial Sector Development Master Plan in its entirety, particularly its financial inclusion elements but also core objectives of strengthened bank supervision, the national payments system, and improvements in statistical reporting and financial sector performance analysis are all essential ongoing activities. Technical assistance by the IMF, and continued participation in the PFIP and other regional groups focused on central banking issues is anticipated.

- SEAPRI agencies: SEAPRI (the State Secretariat for Support and Promotion of the Private Sector) has the formal government oversight responsibility for the BNCTL, IADE, TradeInvest Timor-Leste, and (soon) SERVE. The synergies among these agencies are apparent for private sector development in general—particularly the convergence of BNCTL lending linked to IADE business development services, but also the anticipated district-level co-locating of the IADE and SERVE offices. SEAPRI is also the successor entity to SME promotion activities under the former Ministry of Economic Development aimed at finding ways to encourage sustainable SMEs (independent of reliance on government contracts that have been their original source of business). The International Labor Organization (ILO) has played a prominent role in technical assistance for IADE and its district-level network of enterprise development centers (CEDs) working on entrepreneurial training (business plans) and SME business linkages in value chains, through the Business Opportunities and Support Services (BOSS) project financed by Irish Aid.[40]

- Ministry of Agriculture and Fisheries (MAF): The MAF is in the process of revitalizing and reforming Timor-Leste's agricultural extension services, with support from multiple donors including Germany and Portugal. GIZ is currently providing comprehensive assistance on the implementation of the Medium-Term Operational Plan (MTOP) focused on extension services, and among many other agendas the MAF is leading the newly formed Horticulture Working Group aimed at promoting and expanding new value chains.[41]

- Ministry of Commerce, Industry and Environment (MCIE): The MCIE, regarding agro-industry and finance, is engaged in institutional strengthening programs to build capacities of both production and financial cooperatives. The degree to which this work conforms to demand-driven market demand vs. historical supply-side approaches will be important to watch, particularly the avoidance of market-distorting subsidies or over-regulation.[42]

Multilateral and bilateral donor agency initiatives

- World Bank Group (IFC and WB): Among multiple planned World Bank activities is a new land administration project, dealing with the land tenure issues and building on results of a WB "Land Governance Assessment Framework" report currently underway, to include new "Guidelines for Managing Communal Lands" covering use rights where "land is not alienable." Another new project to continue work on agricultural productivity increases among subsistence farmers is also in a design phase, with possible grant funding by the Global Agriculture and Food Security Program (GAFSP).

The IFC, on its side, has a long history of supporting overall financial sector assessments in Timor-Leste, with a special focus on microfinance institutions including current assistance on the conversion of both Moris Rasik and TRM to ODTIs and a capital investment in the latter. IFC also provided the technical assistance leading to the formation of the CCI-TL in 2010 and more recently the SERVE company registry. IFC is a lead entity for the Donor Financial Inclusion Group and the annual Financial Sector Gap Assessments. IFC also coordinates the technical work for the annual World Bank Doing Business (WBDB) reports as well as assistance on WBDB-related improvements such as streamlined business registrations.

- UNDP/UNCDF—Inclusive Finance for the Under-served Economy (INFUSE) program: The INFUSE program (2008-2014) has focused on the ODTI regulations for MFIs, direct support to Moris Rasik and TRM, the design and implementation of the "credit life plus" micro-insurance product, technical assistance for credit unions through a partnership (2009) with Credit Union Foundation Australia (CUFA), and most recently the technical leadership for the network of UBSPs in Timor-Leste. The latter involves collaboration with the key NGOs engaged in UBSP promotion including OXFAM-Australia, Mercy Corps, World Vision and many others, aimed at unifying the network around best practice methodologies and future advocacy capacities. INFUSE has also just released (May 2014) an updated "interactive map" of all current financial services access points in Timor-Leste (banks, credit unions, MFIs and UBSPs combined) that will be highly useful for planning purposes related to rural finance expansion strategies.

- Market Development Facility (MDF): MDF operations in Timor-Leste began in 2013 with funding by AusAID. The program is aimed very directly at investment "partnerships" with Timorese SMEs, with a priority focus on agribusinesses and other rural SMEs. Thus far, a reported four partnerships have been "closed" with an eventual goal to have a pipeline producing two new partnerships per month. Average total value of a given investment is projected at roughly $130,000, with MDF funding a maximum of 60% share principally for up-front technical assistance and capital equipment purchases. A particular goal is to support sustainable, market-driven investments in value-adding ventures, including import substitution via competitively priced local products. Debt finance alongside the investments is not yet part of the equation but will be important—the MDF director indicated that he has seen very little evidence to date of bank of MFI credit availability. Overall, the MDF "quasi-equity" partnership model is similar to other investment encouragement programs elsewhere and should have good prospects for success in Timor-Leste.[43]

- Asian Development Bank: The ADB is playing very key roles related to the financial sector. First, the ADB has been at the center of the BNCTL story, going back to the formation of the IMfTL and then its conversion into the BNCTL in 2011 (preceded by divestment of ADB shares to the government), and continuing with intensive involvement in an advisory capacity on all dimensions of BNCTL strategic planning and action plans. Second, the ADB (along with INFUSE) has provided much of the leadership on the branchless banking feasibility analyses. Third, the draft Secured Transactions Law is largely the product of ADB technical assistance. With this broad scope of action, the ADB also is quick to advocate for a "systemic" perspective required for Timor-Leste financial sector development, stressing the strengthening of the BCTL and improvements in all of the financial infrastructure elements as presented in Section 2.E.

- Japan—Cocomau (Coffee Cooperative/Maubisse): Formally organized in 2004, Cocomau is located in Maubisse, Ainaro District. It now has 450 smallholder coffee producer members in 18 villages, and exports "top grade" organic coffee beans (cherry) to Japan while selling the remainder lower grade beans on the local market. The operation has been supported and technically led since inception by PARCIC, a Japanese NGO. All financing for annual purchases of coffee beans is provided by PARCIC through its for-profit export company PTC based in Dili. The farmers do not have bank accounts nor do they currently receive credit from financial institutions. Cocomau did set up a savings group for members in 2009, maintaining the group's account at the BNCTL branch bank in Aileu. The Cocomau model remains highly dependent on PARCIC; asked if there was an exit strategy, the PARCIC director candidly replied "maybe in the next generation," indicating the tenuous long-term sustainability of this agribusiness chain.

- USAID—DAC and CCT projects: USAID/Timor-Leste has two "flagship" projects, the Desenvolve Agricultura Comunitaria (DAC) horticulture value chain project and the Cooperativa Café Timor (CCT) coffee production and export initiative. The DAC (2010-2015) is truly also the "flagship" value chain development project in Timor-Leste, pioneering the way toward market demand-driven sustainable agribusiness chains, in this case locally produced fresh vegetables competing successfully with imports. The key DAC accomplishments include: the organization of farmer groups that share horticulture production facilities and negotiate terms and conditions with buyers; direct involvement of end-buyer supermarkets as "lead firms" in the chains, including provision of inputs (primarily high quality seeds) and technical advice costed out as direct value chain finance; linkage of farm producers to BNCTL for access to seasonal working capital and on-farm infrastructure improvements; and the launching of the national level Horticulture Working Group with the MAF.

The CCT initiative over the past 10+ years has helped create one of the country's largest coffee producing and export enterprises. With some 21,500 smallholder coffee producer members, CCT is poised to operate fully independently from USAID grant support—recently, CCT has also begun to diversify into cattle, cocoa and cassava product markets in addition to coffee. Finance for CCT operations comes primarily from a line of credit with a Swiss source; currently there is no significant banking relationship with Timor-Leste commercial banks, and (unlike DAC) there has as yet been no significant demand for credit by the individual cooperative members.

This listing of government and donor initiatives is clearly non-exhaustive and has been kept to the above entries due to space requirements.

Section 4: Challenges and Opportunities for Agribusiness/ Rural Finance in Timor-Leste

Taking into consideration the combined findings in all parts of Section 2 and the government and donor initiatives in Section 3, conclusions on the principal challenges and opportunities for Timor-Leste agribusiness/rural finance are presented below.

1. Bankable Borrowers

It is important to be realistic about smallholder farmers becoming "bankable borrowers." Most are not natural entrepreneurs or risk-takers, and are unlikely to want to access finance unless they are certain that they can both produce and sell at a profit that allows loan repayment. Only a small percentage of smallholders are likely to progress to small commercial farm status and seek credit. In particular, temptations should be avoided to offer/push credit to those not able or ready to handle it, i.e., stay away from "supply-driven" models. Limited commercial ambition among smallholders is a fundamental constraint to agricultural development and much needs to be done in terms of extension and demonstration to overcome that constraint before agricultural growth and effective demand for finance can occur.

On the other hand, virtually all interviewees and particularly the representatives of lead firms, commercial banks and donor agencies stressed the need for increased financial literacy and business planning capacity at all levels of the agricultural economy. The challenges here are medium to long term and involve both basic education related to finances (savings and bank accounts, interest rates, risks of borrowing) and standard business development services (business plans, loan applications, marketing, cost and quality controls, etc.). The opportunity is to gradually increase the number of bankable borrowers participating in profitable enterprises.

2. Impacts of Government Policies and Priorities

Government policy can have either positive or negative consequences for agribusiness development, affecting investments by SMEs as well as larger lead firms and participation of smallholder producers in agricultural value chains. Particular current government interventions exert both push and pull factors that act to drive investment away from the sector. On one side, the government has "pulled" investment away from agriculture through its financing (government procurements) of small construction contracts that are regularly made available to SMEs and recognized as providing high rates of return (including loose monitoring of costs). When looking at investment opportunities, these SME entrepreneurs have to date preferred the certainty, and quick and high return, of such contracts to more risk-prone and uncertain investments in agricultural activities. The same calculus applies to medium to large domestic investors, who have naturally been drawn to large construction and physical infrastructure as a business priority.

On the other side, government has also "pushed" potential investors away from agriculture through its intervention in agricultural markets. Specifically, the program in 2010 whereby government purchased from farmers at high prices and then sold the produce to consumers at a subsidized rate was a major disincentive to private investment. Government-subsidized inputs (current policy) can also be a major disincentive to efficient production, as smallholders will prefer to wait for the delivery of free inputs rather than plant on time using commercially purchased seed and fertilizer. The challenges for the government will be to move away as much as possible from subsidy models in favor of market-driven private investments, per the stated top priority for agriculture in the Strategic Development Plan.

3. Diversification of Agribusiness Investments

Diversification is essential if the agricultural sector is to expand as planned. When investors do turn in greater numbers to agriculture as "next best" opportunities, it will be important to diversify investments in all subsectors based on market demand and relative return projections. The current heavy attention placed on the emerging horticulture (fresh vegetables) value chains as well as the established coffee export industry can and should be increasingly complemented by opportunities in livestock and animal feed (cattle, pork, poultry), fish and crab production, and a range of other frequently cited opportunities in fruit, cereals, cassava, cocoa and other agriculture and forest products. Import substitution is most often indicated as the early model to follow, but new exports of food products are likely to become profitable as well. Demand for agribusiness finance will follow the viable investment projects.

4. Value chain development models

The development of "well-articulated" agricultural value chains is one of the greatest challenges to rural development in Timor-Leste. Principal characteristics of sustainable profitable chains are: (a) leadership of chain operations by an "anchor" or lead firm, usually the end buyer/processor of products for competitive sale in defined domestic or export end markets; (b) clearly understood transactions among all actors and fair, equitable sharing of benefits; (c) strong producer groups or associations that represent and negotiate the terms of participation of small-scale producers; and (d) effective technical assistance to assure product quality integrated with credit provision. In Timor-Leste, only a few well-defined chains now exist, but their development and expansion will be the centerpiece of future agribusiness investments—a central theme repeated throughout this report.

Among the chains developed thus far, most have relied on substantial donor support and encouragement to get established. Examples are the long-established Cooperativa Café Timor (CCT) and Cocomau Cooperative (Maubisse) coffee export chains, and the relatively new domestic market horticulture chains supported by the DAC project and by ILO/IADE. The two coffee chains remain heavily dependent on external technical assistance and marketing support, and the long-term sustainability of their operations (without external funds) is an open question. By contrast, the model followed in the horticulture chains' development is more closely allied with best practice sustainability approaches, emphasizing time limit considerations in the duration of external involvement, exit strategies passing leadership to the end-market firm, and concentration on demonstration effects whereby other investors observe and decide to commence similar operations with or without any donor funding. The new Market Development Facility (MDF) managed by Cardno/Australia is organized along these lines, targeting SME agribusinesses among other rural non-farm enterprises with partial funding of initial operations. The overall challenge for donors (and government counterparts) will be to find ways to identify and support new lead firms at SME or medium-large enterprise levels in initiating their ventures, particularly via linkages with smallholder producers and in access to finance.

5. Value chain finance (VCF)

While buyer and supplier credit (direct VCF) between firms within a chain is a long-established practice, the integration of formal lenders into value chains (indirect VCF) is a new development both internationally and, in an early stage, in Timor-Leste. The closest example at present is the BNCTL working capital credit to individual horticulture producers linked to the DAC-inspired chains in the Aileu District. However, in a fully developed VCF operation, the bank would also be a principal creditor for the lead firms (in this case the Dili-based supermarkets and wholesalers), and credit provision would be arranged in an integrated way to producers, input suppliers, traders/transporters, and any other actor based on a detailed understanding and financial partnership with the lead firm, and on collateral guarantees linked to contracted transactions within the chain. The indirect VCF model is attractive to both lenders (effective cross-guaranteeing of credits) and borrowers (for lead firms often replacing use of own funds with bank credit, and for small producers providing pre-negotiated and favorable credit terms). Going forward, the model should present positive opportunities for Timor-Leste.[44]

6. BNCTL

BNCTL is singled out as the most important financial supplier for an expanding agribusiness sector. While it is possible that the foreign commercial banks may offer more finance, in the near term and particularly at SME levels only BNCTL is likely to be responsive. The challenges here are multiple and difficult. First, BNCTL is just starting up as a full-fledged commercial bank, and is still formulating its long-term strategic plan. Second, BNCTL has very limited lending capital (deposits plus equity contributions by the government) to meet credit demand from all parts of the economy, by no means focused uniquely on agriculture, and will need to significantly expand its capital base. Third, BNCTL will not be able to escape the reality of being 100% government-owned, meaning that it will inevitably be pressured to undertake finance programs that may not be economically sound, e.g., smallholder coffee rehabilitation loans that may be made without reference to end markets. Fourth, BNCTL is emerging from its past as a microfinance institution operating on rural development rather than commercial viability principles, and lack of effective collateral supporting new credit products for agricultural and rural SMEs may result in an increasing proportion of non-performing loans in the future. Nonetheless, the assessment finds high promise in BNCTL management to deal with all of these challenges successfully, meriting concerted technical support by donors and additional capital contributions by the government.

7. Microfinance institutions

Discussions with both Moris Rasik and TRM management reveal cautious optimism regarding future development. Both MFIs have positioned themselves for greater outreach, but both remain relatively small and neither has grown at the rates envisaged two years ago. This is especially true of the agricultural sector. Management of one MFI explained this quite succinctly noting that there had been very little fundamental change in terms of agribusiness opportunities and that, until such time as change did occur, agricultural investment would remain low. This statement highlights the key constraint to agricultural finance from the lenders' perspectives in general, namely the paucity of commercially bankable businesses in the sector. Challenges faced at present by both MFIs are the (now overdue) deadlines to meet the BCTL licensing requirements as regulated ODTIs, inability to expand lending portfolios without increases in their capital base, and difficulties encountered in "scaling up" (offering larger loans to individual SMEs) due to lack of effective collateral guarantees. Opportunities center on the favorable reputation of both MFIs, their relatively long presence as financial service providers with operations spread across most districts of the country, and the high expectations of the roles the MFIs can play in Timor-Leste's financial inclusion programs.

8. Village Savings and Loan Groups--UBSPs

This assessment found that the UBSPs provide an effective entry point for financial services, meeting especially the savings needs of smallholders but also providing microcredit of a similar size and duration as that provided by the Credit Unions and MFIs. While the success that UBSPs have had in the Oecusse District may be in part due to historical context, the experience in that district (and a key challenge and opportunity for financial sector development) suggests that UBSPs could be organized to a much greater extent throughout the rest of the country, with concomitant benefit. UBSPs provide a useful counterpart to value chain development, providing households with a means of saving the income earned from commercial sales. The use of those funds for productive purposes is less evident, although it tends to occur more with increasing household income. The challenge in this instance is to ensure the sustainability of UBSP development. Some NGOs had supported UBSPs intensively for three months, followed by less regular mentoring over the next nine months, and then expected the groups to continue unassisted. That such an approach is feasible highlights the sustainability of the methodology, but it misses the potential of the UBSPs as groups where aspiration can be developed as well as basic financial literacy skills that will help develop the capacity of smallholders as borrowers. Some UBSPs have been approached to become Credit Unions. There appears to be little benefit to this change and a separate challenge for UBSPs as well as NGO sponsors is to permit successful groups to remain as UBSPs in which peer pressure can ensure good financial management rather than converting to a more complicated and potentially self-defeating CU model.

9. Financial infrastructure

Among the eight "financial infrastructure" categories presented in Section 2.E, the most actionable opportunity with near-term impact potential for the financial sector is the early passage and implementation of the Secured Transactions Law. Once the law is passed, the challenge (based on experience in other countries) will be its careful introduction to users (both on the demand and supply sides), the professional staffing and cost structure (reasonably low fees charged to users) of the new Movable Collateral Registry, and in time a means to register and monitor pledges of movable property electronically (allowing access from any point in the country without necessity of transacting pledge commitments in Dili).

10. Central Bank of Timor-Leste

Finally, the BCTL is the nerve center of the financial system including its financial inclusion leadership role. The challenge at the BCTL, regarding agribusiness and rural finance, is to organize a more direct and deliberate focus on the sector, including mandating regulated financial intermediaries (now commercial banks and ODTIs) to report much more detailed breakdowns of data on agriculture sector credits. Based in part on the methodology used in this assessment, but also on a consensus approach agreed with the intermediaries, a working group could be formed and chaired by the BCTL to follow agricultural finance developments as a specific subset of national level performance on financial inclusion.

The data, available to all on an equal basis, should prove useful to all interested parties in tracking and promoting finance in the sector.

Section 5: Recommendations – Actions to Enhance Growth of Agribusiness/Rural Finance Markets

From the above, eight primary recommendations are made for actions to enhance current and future agribusiness and rural finance markets in Timor-Leste.

1. The Central Bank of Timor-Leste (BCTL) should form a "Working Group on Agricultural Finance" consisting of representatives of the commercial banks, microfinance institutions and other financial entities as well as representatives of the Timor-Leste private sector, to track both demand and supply of agricultural finance and advise the BCTL on measures to enhance the performance of agricultural finance markets.

2. Market-driven, private sector agribusiness value chains should be encouraged and expanded as the key means to accelerate agriculture and rural development in Timor-Leste, following best practice models of value chain development (VCD), and including diversification of investments in all agricultural subsectors.

3. Value chain finance (VCF), linking commercial banks or other financial service providers with lead firms, commercial smallholder producers, input suppliers, traders and other value chain participants, should be pursued as an integrated credit delivery mechanism, along with the development of financial products geared to the requirements of each category of agricultural enterprise.

4. The National Commercial Bank of Timor-Leste (BNCTL) should be strengthened, including expansions of lending capital, to play a central role in the provision of financial services in the agriculture sector.

5. Systemic improvements in the "financial infrastructure" affecting agribusiness and rural finance markets should be pursued, with near-term priority on the Secured Transactions Law and a Movable Collateral Registry permitting pledges of movable assets as collateral for loans to agriculture sector SMEs.

6. The network of UBSP village savings and loan groups in Timor-Leste, providing entry-level financial services and financial literacy orientation to "non-commercial subsistence smallholders" in rural communities, could be strengthened and expanded up to seven times its current level, extending geographic coverage across the country.

7. On the other hand, care should be taken to extend credit only to "commercial smallholders" deemed to be bankable borrowers, i.e., who can produce and sell at a profit that allows loan repayment, preferably linked to a sustainable agribusiness value chain, and to avoid supply-driven credit models that are not based on proven market demand for agricultural products.

8. Branchless banking, as a means to extend banking services in underserved rural areas using mobile phone technology as opposed to physical bank offices, is not yet economically feasible in Timor-Leste, but the BCTL should welcome branchless banking licensing proposals if and when conditions permit as an element of financial inclusion policy.

Annex 1. Contacts and Meeting Schedule

Institution	Contact	Date	Time
Cooperativa Café Timor (CCT)	David Boyce/Bency Issac	28 Apr	4 PM
DAC horticulture project (DAI)	Catherine Johnston, COP	29 Apr	9 AM
DFAT (Australian Govt Dept of Foreign Affairs and Trade)	John Breusch	29 Apr	2 PM
World Vision Timor-Leste	Rebecca Domondon	29 Apr	11 AM
IADE and ILO (BOSS project + value chain develoment)	Jenny Ikelberg and Rolly Damayanti	30 Apr	9 AM
Mercy Corps	Wahyu Nugroho	30 Apr	3 PM
International Finance Corporation (IFC)	Milissa Day, Resident Rep Tiago Luis de Vilhena Teixeira Guerra	30 Apr	4.30 PM
Kmanek Trading	Clarence Lim	1 May	11 AM
BNCTL (Banco Nacional de Comercio de Timor-Leste)	Brigido de Sousa, Chairman Marcelo da Cruz Carvalho, Manager, Credit & Operation	2 May	9 AM
ANZ Bank	David Dennis, CEO Warren Bobin, Head/Business	2 May	11 AM
Chamber of Commerce and Industry of Timor-Leste (CCI-TL)	Kathleen Gonçalves, Vice-President	2 May	2 PM
Tuba Rai Metin	Angelo B. C. Soares, CEO Subhash Chander Jindal	2 May	3 PM
Catholic Relief Services	Torrey Peace	2 May	3.30 PM
UNCDF/UNDP + PFIP (Pacific Financial Inclusion Program)	Reuben Summerlin, Reg. Fin. Inclusion Advisor	2-10 May, Discovery Inn	
Credit Union Federation of Australia	Angelo Moniz Jong	5 May	9 AM
Min. Agriculture & Fisheries	Gil Rangel da Cruz	5 May	10 AM
Seeds of Life	Wayan Tambun Mr Buddi	5 May	11 AM

Market Development Facility (MDF)	Mujaddid Mohsin (Deputy Country Rep)	5 May	1.30 PM
Moris Rasik	Joao Magalhaes Ximenes Steve Judson	5 May	3 PM
Central Bank of Timor-Leste (BCTL)	Rafael Borges, Lic. & Reg. Jofino Fernandes Reci, CRIS	5 May	3.30 PM
CARE	Mirko Gamez	5 May	3 PM
Josephina Farm Lda.	Guido Sequeira	5 May	6 PM
Hidayat (Heavy Equipment Supply) Unipessoal Lda.	Mr. Helmi Alkatiri	6 May	9 AM
Asian Development Bank (ADB)	David Freedman, Economist	6 May	9 AM
Timor Global	Afonso de Oliveira	6 May	11 AM
National Insurance Co. (NITL)	Mr. Eugene Ong	6 May	2 PM
Ministry of Commerce, Industry & Environment (MCIE)	Nivio Magalhaes, Leovegildo dos Santos (General Director Cooperatives)	6 May	3 PM
Timor Corp Ltd	James Rutherford	7 May	9 AM
Banco Nacional Ultramarino (BNU) (CGD)	Miguel Malheiro Reymao, Deputy GM	7 May	11 AM
Fitun Manelima Farm	Joao Campos	7 May	3 PM
OXFAM Australia	Ms. Sharon Alder, Program Director	7 May	3.30 PM
Dilimart Supermarket	David Jong	7 May	4 PM
FarmPro Lda.	Peter Dougan		6 P.M.
FSSA Team (INFUSE/PFIP)	Reuben Summerlin, Raunak Kapoor, Manoj Sharma	8 May	7.30 AM
World Bank	Luis Constantino, Cty. Director	8 May	9 AM
Bank Mandiri	Mr. Yosephus Kurnianto Tri Prakoso	8 May	4 PM
Trade Invest Timor-Leste	Luduvina Pereira, Direcror	8 May	10.3
SERVE (Servico de Registo e Verificaçao Empresarial)	Florencio Sanches, Executive Director	8 May	10.30 AM
GIZ	Beate Quilitzsch Schuchmann Alwin Schuchmann	12 May	9 AM
Timor Alimentar	Agus Puwanto	12 May	9.30 AM
Input Suppliers (2)	c/o Mr. Nilton Aniceto (DAC)	12-May	11 AM
PARCIC/Cocomau coffee coop.	Ms. Ito Junko	14-May	9 AM
EU RDP4	Mr. Yusufo Menezes	14-May	10 AM
Conoco Phillips	Jose Lobato, General Manager	14-May	2 PM
Ebai Co (EDS Compania)	Mr. Elizio	14-May	2:30 PM

UNDP/INFUSE project	Apolinario Guterres & Dongjie Zhang	14-May	4:00 PM
World Bank (ex RDP3)	Hermann Koopman	19-May	10 AM
World Bank	Philip Young	19 May	7 PM

Annex 2. Field Visit Itineraries and Meetings—Aileu, Ainaro, Ermera and Liquiça Districts

Financial Assessment Field Trip I (May 3, 2014) -- Aileu District		
Time		**Contacts**
Saturday May 3		
8.00	Meet outside Discovery Inn	
8.15	Depart Discovery Inn	
10.30	Arrive Moris Foun (Seloi area) Discussion with group of farmers that have received credit from BNCTL (facilitated by DAC)	Catherine Johnston
11.30	Depart Moris Foun	
12.00	Arrive Aileu Town Visit input supply kiosks Visit local outdoor market	
12.30	Lunch	
13.30	Meet World Vision Aileu Office Staff and travel to Maurusa	Agustinha da Costa Imaculada Martins
14.15	Discussion with HOKIFU UBSP group	Abril Brinamo
14.45	Travel to Fatulmau	
15.00	Discussion with HIKHMOR UBSP group	Lurdes Ramos
15.30	Travel to Fatubesi	
15.45	Discussion with HALIBUR UBSP group	Delfina da Silva
16.15	Travel back to World Vision Office Aileu	
16.30	Travel to Dili	
18.00	Arrive Dili	

Financial Assessment Field Trip II (May 9-11, 2014) -- Ainaro District		
Time		**Contacts**
Friday May 9		

7.45	Meet outside Discovery Inn	
8.00	Drive to Aileu	
9.30	Arrive Aileu to meet with BNCTL Branch Director	Lucas Manual Da Silva
10.00	Drive to Maubisse	
11.00	Arrive Maubisse to meet with Cocomau General Secretary at PARCIC	Mr. Shigehito
11.30	Meet with CDE IADE (co-located with PARCIC)	Mr. Helder
12.00	Lunch in Maubisse	
13.00	Meet Josephina Farms Brigada Group Leader	Mr. Octavio
15.00	Meet Josephina Farms Aetalo Group Leader	Mr Fernando
17.00	Return to Maubisse	
	Stay overnight at Pousada Guesthouse	
Saturday May 10		
7.30	Depart Maubisse for Ainaro Vila	
10.30	Arrive Ainaro Vila, meet Mercy Corps District Coordinator at MAF office, drive to Casa	Mr. Norberto Gomes
11.30	Meet Mercy Corps Savings Group: Grupu Homar, in Casa	
12.30	Lunch with Casa Community	
13.00	Travel to sites of other Mercy Corps Savings Groups	
13.30	Meet Savings Groups: Grupu Tedi Adulas and Grupu Dilika	
15.00	Depart for Maubisse	
18.00	Arrive Maubisse	
	Stay overnight at Pousada Guesthouse	
Sunday May 11		
8.00	Depart Maubisse	
11.00	Arrive Dili	

Financial Assessment Field Trip III (May 13, 2014) -- Liquiça and Ermera Districts		
Time		**Contacts**
Tuesday May 13		
8.00	Meet outside Discovery Inn	

8.15	Drive to Dili Rock	
8.30	Meet Mr. Bency Isaac (CCT, drive to CCT plant	Mr. Bency Isaac
8.45	Visit CCT drying field, warehouse and Modified Cassava Flour production facility	
9.30	Drive to Liquiça	
10.30	Arrive Liquica, visit Moris Rasik: Liquiça branch office	1. Mr. Joao Magalhaes 2. Mr. Vasco Pinto, Regional Manager 3. Fransisco Goveia
11.30	Visit BNCTL: Liquiça branch office	Mr. Adriano N. Belo
12.30	Lunch in Liquiça	
13.00	Drive to Railaco, Ermera District	
14.30	Meet MAF Chief, Dept. Extension Officer, Ermera District	Mr. Alfonso Asunsao de Jesus
14.45	Meeting with Farmers (coffee producers)	
16.00	Depart Railaco for Dili	
17.00	Arrive Dili	

Annex 3. Consolidated List of Documents Consulted: Timor-Leste Specific

Government of Timor-Leste

Government of Timor-Leste, "Timor-Leste Strategic Development Plan—2011-2030," final version (2011)

Central Bank of Timor-Leste (Banco Central de Timor-Leste) (BCTL) website, www.bancocentral.tl

BCTL, "Economic Bulletin," Volume 20, December 2013 (quarterly publication)

BCTL, "Timor-Leste Financial Sector Development Master Plan," Consultative Paper, November 2013

BCTL, "Strategy for the Development of the Timor-Leste National Payments System," consultative paper, January 2014

BCTL, "On the Licensing and Supervision of Other Deposit Taking Institutions (ODTIs), December 2010

BCTL, "Credit Registry Information System" (public credit registry in Timor-Leste)

Ministry of Finance, "Timor-Leste's National Accounts 2004-2010, Vol. 1 Statistics and Analysis," MOF General Directorate for Analysis and Research, National Directorate of Statistics, April 2012

TradeInvest Timor-Leste (export and investment promotion agency under SEAPRI), "Total of Private Investment Certificates Approved 2006-2014," latest data

Ministry of Agriculture and Fisheries (MAF), "Agriculture Sector Development: Medium-Term Operation Plan (MTOP)—2014-2018," mid-2013

MAF, "Agriculture Sector Development: Medium-Term Investment Plan (MTIP)—2014-2018," mid-2013

GIZ, "Peer Review" of the MTOP and the MTIP, followed by detailed response by the MAF, May-June 2013

U.S. Government

Embassy of the United States in Timor-Leste website, http://timor-leste.usembassy/gov, including "Doing Business in Timor-Leste" webpage

International Monetary Fund (IMF)

IMF, "2013 Article IV Consultation" for Timor-Leste, December 2013

IMF, "High-Level Conference: Harnessing Natural Resource Wealth for Inclusive Growth and Economic Development," held in Dili, Timor-Leste, September 17-19, 2013.
Presentations include:
"Financial Sector Development and Economic Diversification," Scott Roger, IMF
"Promoting Diversification: Financial Sector Development," Glenn McGuire, ANZ Bank
"Promoting Diversification: Private Sector Development," Kathleen Gonçalves, CCI-TL

World Bank

World Bank Group, "Country Partnership Strategy for the Democratic Republic of Timor-Leste for the Period FY 2013-FY 2017," February 2013

World Bank Group, "Doing Business 2014 Report—Timor-Leste," October 2013

World Bank, "Timor-Leste: Expanding Near-Term Agricultural Exports," June 2011

World Bank, "The Lay of the Land: Land Access and Dispute Resolution in Timor-Leste," June 2010

World Bank, "Timor-Leste Access to Finance for Investment and Working Capital," John Conroy, 2006

World Bank, "Road for Cultural Heritage Project" and "Road Climate Resilient Project", 110 km Dili-Alieu-Ainaro road (north-south link) starting 2014

International Finance Corporation (IFC)

"IFC in Timor-Leste" website, www.ifc.org

IFC, "Turning Around the Private Sector in Post-Conflict Timor-Leste" (refers to WBDB Report for Timor-Leste), 2013

IFC, "Success Story: Uniting the Business Community of Timor-Leste" (formation of the CCI-TL), 2010

Banking with the Poor (BWPT) network, "Microfinance in Timor-Leste," article by Milissa Day, IFC, June 2010

IFC, "Increasing Access to Investment Credit for SMEs in Timor-Leste: A Review of Options," Lene M. P. Hansen, August 2009

IFC, "Financial Sector Diagnostic—Timor-Leste," August 2007

Commercial Banks (4)

BNCTL (Banco Nacional de Comercio de Timor-Leste) website, http://bnctl.com

BNU (Grupo Caixa Geral de Depositos) website, www.bnu.tl (includes Jan 2014 data)

ANZ Bank in Timor-Leste website, www.anz.com/timorleste

PT Bank Mandiri (Indonesia) Timor-Leste website, www.bankmandiri.co.id

Microfinance institutions (MFIs)

Moris Rasik (MFI) webpage, www.morisrasik.com

TRM (Tuba Rai Metin) (MFI) webpage, www.tubaraimewtin.com

Association of Microfinance Institutions in Timor-Leste (AMFITIL), "Financial Services Sector Assessment in Timor-Leste," Lene Hansen and Novanto Agus, January 2005 (funded by UNDP and USAID)

AMFITIL "Code of Ethics for Member MFIs," 2004 (MFI best practices/Timor-Leste)

Chamber of Commerce and Industry of Timor-Leste (CCC-TL)

CCC-TL website, www.ccitl.org

CCI-TL, "Agribusiness Investment in Timor-Leste: Guidelines Supporting Win-Win Outcomes," January 2012 (produced with IFC/World Bank support)

CCI-TL, "Working with Agribusiness Investors: Guidelines for Community Members," January 2011 (produced with IFC/World Bank support)

UNDP/UNCDF + Australia Aid (AusAID)

INFUSE (Inclusive Finance for the Under-served Economy) program fact sheet (2008-2014), plus 2008 program document/financial sector analysis, UNDP/UNCDF, AusAID and GoTL-funded program, www.tl.undp.org

INFUSE, "Map of Financial Services Access Points," updated May 2014

INFUSE, "Financial Services Sector Assessment (FSSA)," terms of reference, mission in Timor-Leste led by Reuben Summerlin, PFIP, completed in May 2014

INFUSE, "Saving and Credit Groups/Associations" (UBSPs) in Timor-Leste," spread sheet as of March 2014 showing 323 groups and 7,799 members, by NGO support entity, Timor-Leste partner entity, and district location

INFUSE, "Testing *Financial Services on Wheels* – Situation analysis report," MCIF, February 2014

INFUSE, "2013 Financial Sector Gap Assessment as of December 2013," produced and updated periodically by the *Financial Inclusion Donor Group of Timor-Leste (FIDGTIL)*, plus detailed minutes of meetings of the FIDGTL

INFUSE, "Mobilize Social Business to Accelerate Achievement of Timor-Leste Millennium Development Goals" factsheet + project document, 2012-2015 with South Korea funding

INFUSE, "Rural Client Survey for Branchless Banking/Mobile Money Market Research in Timor-Leste," presentation of results, June 2013

INFUSE, "Discussion Paper: The Credit Union Movement in Timor-Leste, as of September 2011," updated to June 2013

INFUSE, "Microfinance and Financial Inclusion: Evolution and What it could Mean for Timor-Leste," Till Bruett, March 2010

Pacific Financial Inclusion Program (PFIP): Timor Knowledge Centre, www.pfip.org. Compendium of articles on Timor-Leste financial sector development – PFIP helps oversee the INFUSE program in Timor-Leste.

Asian Development Bank (ADB)

Asian Development Bank (ADB), "An Assessment of the National Commercial Bank of Timor-Leste" (Mariano Cordero), March 2013

ADB, "Branchless Banking in Timor-Leste: Opportunities and Challenges," (Erik Aelbers), June 2013

ADB, "Assessment of the Potential for G2P Disbursement, Cash Management, Field Agents and Mobile Banking Payment Service Provision in Timor-Leste," March 2013

ADB website, www.adb.org/countries/timor-leste

USAID/Timor-Leste

USAID/Timor-Leste, "Request for Information" (RFI) re "Concept Paper: Economic Growth Integrated Project for Private Sector Competitiveness, Agriculture and Global Climate Change," October 2013

USAID/Timor-Leste, "Country Development Cooperation Strategy 2013-2018"

USAID, "Accelerating Economic Growth in Timor-Leste" (Final Report), April 2013

USAID FrontLines article (March/April 2014 online edition), "Timor-Leste and ConocoPhillips Improving Incomes for Rural Farmers," by Dennis Wesner and Lisa Rogers, USAID/Timor-Leste

USAID/Development Alternatives Inc. (DAI) "Developing Agricultural Communities (Desenvolve Agricultura Comunitaria = DAC)" project documents

USAID/DAC Project, "The Fresh Vegetable Value Chain in Timor-Leste," Catherine Johnson and Nilton Ancieto, November 2013

ConocoPhillips/Australia – Timor-Leste website, www.conocophillips.com.au (including current partnership with DAC project)

USAID, "Demand for Second-Tier Credit in Timor-Leste" (Final Report) December 2005

Other value chain and financial scheme development documents

OXFAM—Australia, “Saving and Credit Groups” (UBSPs), updated list of 96 groups supported by OXFAM as of May 2014

GIZ and Ministry of Agriculture and Fishery (MAF), “Market analysis and support to Value Chain Development,” March 2014 = new activity announcement, part of “Managing Agro Biodiversity for Sustainable Livelihoods in Timor-Leste” project

International Labor Organization (ILO), “Business Opportunities and Support (BOSS) Project (2010-2014)”—Ministry of Economic Development as counterpart, funding by Irish Aid

ILO, “Report on Value Chain Analysis of the horticulture sector in Ainaro district, Timor-Leste,” 2013, produced for Ministry of Economic Development under the BOSS project

ILO, “Report on Value Chain Analysis of the cattle sector in Bobonaro and Lautem districts, Timor-Leste,” June 2012, produced for Ministry of Economic Development under the BOSS project

Mercy Corps, “Final Report: Study of Agriculture Loan Scheme in Ainaro and Manufahi Districts of Timor-Leste,” September 2012

Mercy Corps, “Preliminary Findings on Demand Side of the Agriculture Financial Scheme Study in Ainaro and Manufahi Districts,” June 2012

Cooperativa Café Timor (CCT) website, http://coopcoffees.com

“East Timorese Sell Their Coffee to Starbucks, Starve at Home,” Time Magazine article by Charlie Campbell, October 25, 2013

World Vision, “Savings Groups Project Model” website, www.wvi.org/timor-leste

Catalpa International, “Mobile Banking Agent Survey – General Overview,” Timor-Leste, 2012

Annex 4. Reference Documents: Worldwide Experience Relevant to Timor-Leste Assignment

<u>International organizations/foundations/firms</u>

World Bank, "Global Financial Development Report 2013: Rethinking the Role of the State in Finance," 2012

International Finance Corporation, "Agribusiness Investment Climate" (worldwide practice website) and "IFC Advisory Services/Access to Finance, Annual Review 2013"

IFC/Global Partnership for Financial Inclusion (GPFI), "Scaling Up Access to Finance for Agricultural SMEs: Policy Review and Recommendations," October 2011

IFC, "Stories of Impact: Making Microcredit Accessible for the Poor in Rural Peru," October 2013

Asian Development Bank and Pacific Private Sector Development Initiative (PSDI),"Pacific banks go branchless to reach the unbanked," January 2014 – plus multiple other articles on PSDI "Access to Finance" website

Foundation for Development Cooperation (FDC) – extensive publications on financial inclusion, most recently "Asia-Pacific Forum on Financial Inclusion: Innovation and Regulation—Meeting the Challenges of Policy Reform and Capacity Building," June 2013
[Note: FDC also leads the Asia/Pacific regional Banking With the Poor (BWTP) Network from its secretariat based in Brisbane, Australia.]

MicroSave "market-led solutions for financial services" publications -- most recently "The Mor Committee Report—The Demand Side Conundrum," (February 2014 article by Graham Wright)

Development Alternatives Inc. (DAI), "Financial Services Via Mobile Phone," John Jepsen, Winter 2013

GIZ, "Agricultural Finance—Trends, Issues and Challenges," produced for BMZ, German Ministry for Economic Cooperation and Development, July 2011

GIZ/BMZ, "Contract Farming Handbook: A practical guide for linking small-scale producers and buyers through business model innovation," Margret Will, 2013 – plus Agrilinks review by Veronica Letelier, February 2014

Pacific Financial Inclusion Programme (PFIP) and Alliance for Financial Inclusion (AFI), "Lessons learned for national financial inclusion strategy development," April 2011

PFIP, "Building supervisory capacity to create inclusive insurance markets in the Pacific," Russell Leith and Ramanthan Subramanian, November 2013

USAID publications

USAID Microlinks webpage, "What is Value Chain Finance?" (with updates)

USAID, "FS Series #5: Value Chain Finance—primer, diagnostic checklist, model scope of work," (September 2009)

USAID, "FS Series #8: Rural and Agricultural Finance for Food Security—primer," (April 2010)

USAID, "Rural and Agricultural Finance—Taking Stock of Five Years of Innovations," produced by ACDI/VOCA and Cardno Emerging Markets Ltd. under the USAID AMAP project, (December 2011)

USAID, "Key Lessons for Mobile Finance in African Agriculture: Three Case Studies," briefing paper last updated January 2013

USAID AgCLIR methodology = "Agribusiness: Commercial Legal & Institutional Reform Diagnostics"—building on earlier USAID BizCLIR and World Bank Doing Business analytical frameworks

USAID, "Doing Agribusiness in Latin America" series—Nicaragua and Guatemala, 2011

USAID/Haiti, "Evaluation of the Haiti Financing for Value Chains and Enterprises (HIFIVE) Program," as of August 2012 (project implemented with 2014 end date by FHI 360). Also, multiple FHI 360 HIFIVE reports on access to agricultural credit, agro-ecological finance for coffee cooperatives, critical roles of MFIs and credit unions, and other topics.

FHI 360 FIELD-Support LWA publications

FHI 360, ACDI-VOCA and USAID, "Value Chain Finance Guide: Tools for Designing Project Interventions that Facilitate Investment in Key Value Chain Upgrades," (TBD, forthcoming)

FHI 360 and Action for Enterprise (AFE), "Finding the Links in Value Chain Development: A Handbook on Working with Lead Firms," Microlinks article by L. Reid, March 2014

FHI 360, "FIELD Report No. 18: Smallholders and Inclusive Growth in Agricultural Value Chains," produced by Elizabeth Dunn, Impact LLC, January 2014 – plus Annex with "Models for Inclusive Growth"

FHI 360, "FIELD Brief 19: Making the Case for Mobile Money—A Look at Social Cash Transfers for Development," Chris Statham, August 2012

FHI 360, "FACET—Fostering Agriculture Competitiveness Employing Information and Communications Technology" program (Sub-Saharan Africa region), multiple FACET publications on mobile banking by commercial MFIs (Opportunity Bank Malawi), digital payments, micro-insurance, warehouse receipts, other topics (2011-present)

FHI 360, "Challenging Assumptions on Savings for the Poor," June 2012

Annex 5. UBSP Savings and Loan Groups in Timor-Leste (December 2013)

SAVING GROUPS IN TIMOR LESTE*

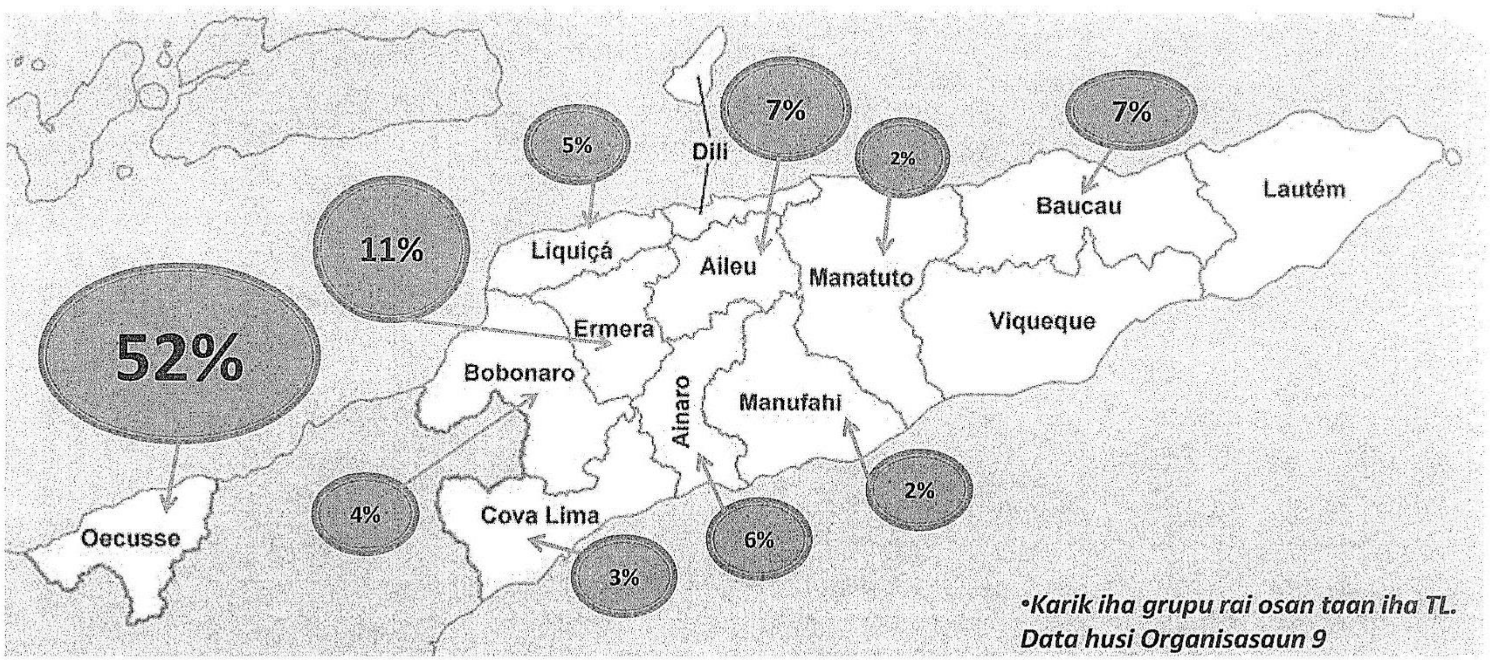
Mar-14

GROUPS	Number of saving and credit groups/associations																							
Organization	UNDP	CARE	OXFAM											CARITAS	WORLD VISION	MERCY CORPS	SEEDS OF LIFE	WORLD NEIGHBORS				RAEBIA	TOTAL GROUPS	% total per District
Facilitator	FEEO/UNDP		Y-ACTS	ACHAE	CECEO	BIFANO	FPWO	SUHU RAMA	JEF	FE	HADER	FHF	ALEBAO	CECEO/Yacts/ALEBAO/Funibes/Topohonis				FFSO	BIFANO	CECEO	ACHAE	(EX usc Canada)		
OECUSSE	34		35	4	6	6	6						2	43				7	9	9	6		167	52%
ERMERA	24	13																					37	11%
AILEU															24								24	7%
BAUCCAU															21		1						22	7%
LIQUICA		11									5						1						17	5%
AINARO								3				10				7							20	6%
COVALIMA									7	3													10	3%
BOBONARO		6													7								13	4%
MANUFAHI																6							6	2%
MANATUTO																						7	7	2%
TOTAL groups	58	30	35	4	6	6	6	3	7	3	5	10	2	43	52	13	2	7	9	9	6	7	323	
			87															31						
% per organiza	18%	9%	27%											13%	16%	4%	1%	10%				2%	100%	

MEMBERS	Number of saving and credit organizations' members																							
Organization	UNDP	CARE	OXFAM											CARITAS	WORLD VISION	MERCY CORPS	SEEDS OF LIFE	WORLD NEIGHBORS				RAEBIA	TOTAL MEMBERS	% Total members
Facilitator	FEEO/UNDP		Y-ACTS	ACHAE	CECEO	BIFANO	FPWO	SUHU RAMA	JEF	FE	HADER	FHF	ALEBAO	CECEO/Yacts/ALEBAO/Funibes/Topohonis				FFSO	BIFANO	CECEO	ACHAE	(EX usc Canada)		
OECUSSE	410		1,344	68	60	429	88						36	490			200		459	281	122		3,987	51%
ERMERA	402	311																					713	9%
AILEU															387								387	5%
BAUCCAU															308								308	4%
LIQUICA		620									74												694	9%
AINARO								22				151				194							367	5%
COVALIMA									77	44													121	2%
BOBONARO		811													170								981	13%
MANUFAHI																93		-	459	281	122		955	12%
MANATUTO																						107	107	1%
TOTAL membe	812	1,742	1,344	68	60	429	88	22	77	44	74	151	36	490	865	287	200	903				107	7,799	
			2,393																					
% per organiza	10%	22%	31%											6%	11%	4%	3%	12%				1%	100%	

Grupu rai osan iha Timor Leste

- Grupu 323* **no 7,799 members** iha Distritu 10 – liu taan 50% membru sira feto



Annex 6. MFI Data Tables: Moris Rasik and Tuba Rai Metin

Moris Rasik – Loan Product Details

Loan product	Group Loan (IGL)	Group Loan (Special)	Business loan (SME)
Loan Size	US$ 50-5,000	US$ 400-5,000	US$ 2,000-10,000
Repayment frequency	Weekly		Monthly
Loan term	25 or 50 weeks	25, 50 or 75 weeks	12, 18 or 24 months
Interest rate	18% pa flat	15% pa flat	15% pa flat
Service Charge	0.25% of loan	1% of loan	2% of loan
APR	35.7%	30.9%	29.6%
Compulsory security deposits	20% of loan amount		10% of loan amount
Interest paid on savings	4% pa on monthly average of compulsory deposits		
Number of Borrowers	7500	1500	80
Total Value of Loans	$2.9 million	$800,000	$400,000

Source: Moris Rasik Institutional Rating Update and Interviews

Tuba Rai Metin – Loan Product Details (2013)

Loan product	TRM1	TRM2	TRM3
Loan Size	US$ 50-150	US$ 150-500	US$ 600-3,000
Number of Borrowers	1,243	3,294	1,678
Proportion	0.2	0.53	0.27
Amount of loan (ave. US$)	100	325	1,500
Total Value of Loans	124300	1070550	2517000

Annex 7. Map: Financial Service Access Points in Timor-Leste (December 2013)

Endnotes

[1] In both the demand and supply estimates, working capital and trade finance required by lead firms in the principal coffee chains in Timor-Leste are excluded from the analysis. These finance needs are met in most cases by overseas sources of credit. For example, CCT (Cooperativa Café Timor) currently accesses in excess of $8 million annually to finance its coffee and other operations, and other coffee exporters similarly rely on overseas credit. While some of the estimated $2.9 million in current domestic credit for the agriculture sector may be destined to coffee smallholders, the much larger overseas finance figures (supporting CCT, Timor Corp Ltd., Cocomau/Maubisse, others) are explicitly excluded in order to not distort the assessment's focus on domestic agricultural credit availability.

[2] IMF Article IV Consultation, December 2013, p. 29. The same $1.29 billion non-oil GDP figure (2012) is used by both the World Bank and the Asian Development Bank (ADB), at odds with other sources that record non-oil GDP at much higher levels.

[3] USAID DAC project, "The Fresh Vegetable Value Chain in Timor-Leste, " p. 3.

[4] "Timor-Leste Household Income and Expenditure Survey (2011)" – National Statistics Directorate, General Directorate for Analysis & Research, Ministry of Finance of Timor-Leste.

[5] The CCI-TL, with IFC/World Bank support, has produced two detailed guides for agribusiness value chain participants – for use by lead investors and farm communities, respectively entitled "Agribusiness Investment in Timor-Leste: Guidelines for Win-Win Outcomes" (January 2012), and "Working with Agribusiness Investors: Guidelines for Community Members" (January 2011). An interview with the current CCI-TL leadership confirmed its continuing interest in promoting new agribusiness investments.

[6] Government of Timor-Leste, "Timor-Leste Strategic Development Plan—2011-2030," final version published 2011. Of primary relevance for this Report, the 227-page SDP document includes specific sub-chapters on Agriculture, Rural Development, and Private Sector Investment as well as sections on agribusiness, value chain development, company registration, investment incentives, business development centers, cooperatives, land tenure, irrigation and road infrastructure, and commodity-specific strategies for rice, maize, cassava, fruit and "high-value" vegetables, cash crops (coffee, candlenut, coconut), livestock and animal farming, fisheries and other agricultural subsectors.

[7] Information per interview with Gil Rangel da Cruz, until recently the coordinator of the Horticulture Working Group led by the MAF. The MTOP and MTIP documents (issued in May 2013) are heavily focused on strengthened MAF agricultural extension services. See also Section 3.

[8] UBSP = "Usaha Bersama Simpan Pinjam"(Indonesian for "Joint Savings and Loan Groups"). MCIE promotion of financial cooperatives (credit unions) vs. UBSPs is also discussed in Section 3.

[9] The "Financial Sector Development Master Plan" (FSDMP) is an innovative, comprehensive initiative led by the BCTL. Its implementation, which will formally begin in 2014 after final feedback on the "consultative paper" is received, will require close coordination and participation of the government, the financial institutions and the private sector, including adjustments as needed and revised targets pending progress.

[10] As of the writing of this report, the "Financial Services Sector Assessment" (FSSA) was still in preparation by the PFIP team, coordinated in country by the UNDP/Timor-Leste office. It will be useful, once both exercises are issued as final documents, to compare them more closely regarding demand and supply assumptions and calculations for national level vs. agriculture sector finance.

[11] Information per interview with Miguel Malheiro Reymao, Deputy General Manager of the Banco Nacional Ultramarino (BNU) in Dili.

[12] BNCTL Information has been assembled from direct interviews and follow-up correspondence with the BNCTL Chairman and BNCTL Manager/Credit & Operations at BNCTL headquarters in Dili, as well as meetings with BNCTL branch office managers in both the Aileu and Liquiça Districts. The most comprehensive diagnostic of BNCTL capacities, strategies, capital requirements and many other considerations is in "An Assessment of the National Commercial Bank of Timor-Leste," Asian Development Bank (ADB), March 2013.

[13] The ODTI (Other Deposit Taking Institutions) legislation is motivated primarily by the need to regulate MFIs or other financial service providers that exceed the stated $500,000 in total deposits (protection of depositors in same way as for commercial banks). The ODTI "public instruction" (regulation) is not a "microfinance law" per se –

although as observed there are currently only two MFIs operating in Timor-Leste and both are large enough to be subject to ODTI rules.

[14] Credit Unions must be set up according to legally specified conditions, including a minimum membership of 15 and a minimum capital of $1,500. They have been widely supported, most recently by the Cooperative Union Federation of Australia, which continues to provide technical assistance. The Government also provides close to $500,000 to support their administration. Nevertheless out of approximately 50 credit unions that have been initiated over the last ten years, only 27 remain in evidence, of which 13 are active an 5 could be said to be operating successfully.

[15] See USAID Briefing Paper, "Key Lessons for Mobile Finance in African Agriculture: Three Case Studies, January 2013.

[16] Among the many surveys and analytical reports on the different "branchless banking" options in Timor-Leste, the most thorough and comprehensive summary is in the "Assessment of the Potential for G2P Disbursement, Cash Management, Field Agents and Mobile Banking Payment Service Provision," Asian Development Bank under the Pacific Private Sector Development Initiative, Phase III, March 2013. Other reports are listed in the Timor-Leste Specific documents in the Annexes.

[17] BCTL Economic Bulletin, Volume 20, December 2013.

[18] Figures are based upon the 2010 census data for rural population and household size using the observed rate of rural growth to extrapolate the current number of rural households.

[19] Most groups have been in existence for over 12 months and each member is required to save at least $5 per month, i.e. accumulated savings of at least $468,000. In practice, additional voluntary savings often occur raising the total accumulated above $500,000.

[20] See comprehensive table in the Annexes showing the distribution of savings and loan groups at the end of 2013.

[21] Including tubers, meat, vegetables, and fruit, but excluding eggs, cereals and oils.

[22] Comparison of 2004 and 2010 census data suggests that while rural population growth is 1.45% p.a., urban growth is more than three times greater at 4.76% p.a.

[23] USAID, "Accelerating Economic Growth in Timor-Leste" (Final Report, April 2013).

[24] There have been various projections for the growth of non-oil GDP, but those of the Asian Development Bank appear to be the best informed. In its 2013 Country Report for Timor-Leste, the ADB projects non-oil GDP growth to remain constant throughout 2014 and 2015 at 8.5%.

[25] Principals of Financial Cooperatives from World Council of Credit Unions (WOCCU):

- Credit unions are democratic, member-owned financial cooperatives. Each member may run for the board and cast a vote in elections.
- As financial intermediaries, credit unions finance their loan portfolios by mobilizing member savings and shares rather than using outside capital.
- Credit unions exist to serve their members and communities. As not-for-profit cooperative institutions, CUs use excess earnings to offer members more affordable loans, a higher return on savings, lower fees or new products and services.
- Credit unions are safe, convenient places to access affordable financial services. CUs offer a full range of financial services.

[26] UNDP, INFUSE discussion papers on credit unions, periodically updated.

[27] HIES 2011 data suggests that income from agricultural sources makes up 17.6% and 65.5% of total household income in urban and rural areas respectively.

[28] Data sourced from reports submitted to MIX Market for Q1 2014.

[29] HIES statistics indicate that 57% of all wage income comes from government employment. Hence this agency provides BNCTL with a substantial number of clients.

[30] The Ministry of Economic Development supplied 6 vans as mobile banking units to BNCTL in 2014.

[31] Data provided by BNCTL Chairman, May 2014.

[32] "Doing Business 2014: Economy Profile—Timor-Leste," World Bank and International Finance Corporation, October 2013.

[33] See CCI-TL publications (World Bank-supported) on guidelines for agribusiness investors and community groups in reaching land-use agreements for new commercial ventures, op. cit.

[34] GIZ, "Agricultural Finance—Trends, Issues and Challenges" (July 2011), p. 13.

[35] Status of the Secured Transactions Law obtained per discussions with ADB staff economist in Dili and subsequent information provided by ADB regional office in Sydney.

[36] Information based on interviews and subsequent data provided by Florencio Sanches, Executive Director of SERVE, and Ludovina Pereira, Director of TradeInvest Timor-Leste. Note: SERVE, TradeInvest Timor-Leste, IADE and also BNCTL (the government commercial bank) are all overseen by SEAPRI, State Secretariat for Support and Promotion of the Private Sector.

[37] FSDMP, p. 29.

[38] U.S. Embassy, Investment Climate Statement, 2013.

[39] WBDB 2014 report on Timor-Leste, pp. 72-82.

[40] In the team's field visit to Maubisse (Ainaro District), we met with the local IADE enterprise development center (CED) leader who elaborated on current CED/Maubisse initiatives to link small cattle farmers with a Dili-based buyer (slaughterhouse undergoing rehabilitation). The ILO value chain research on both cattle and horticultural value chains, referenced in the Annexes, are sources of information guiding CED business advice and linkage efforts. In addition and regarding synergies among the SEAPRI agency network, the Maubisse leader mentioned a recent visit by Veneranda Lemos, the national director of SEAPRI, who also emphasized the need to find ways to integrate BNCTL finance with viable new agricultural chains.

[41] GIZ is particularly well placed to advise the MAF. GIZ participated directly in the "peer review" of both the MTOP and MTIP. As one of the lead organizations providing implementation assistance (under the European Union-funded Regional Development Program 4 (RDP 4), GIZ draws on its extensive worldwide experience, e.g., its "Contract Farming Handbook: A practical guide for linking small-scale producers and buyers through business model innovation" (2013). On other value chain development, a new GIZ and MAF document has just been released, "Market analysis and support to Value Chain Development" (March 2014) as part of a parallel "Managing Agro-Biodiversity for Sustainable Livelihoods in Timor-Leste" project.

[42] There may be correct reasons (for some of the larger UBSPs) to consider becoming credit unions under MCIE rules and regulations. However, in the meeting held with the MCIE Director General of Cooperatives it was not clear how deliberately or consistently the MCIE may choose to follow this course.

[43] MDF-type investment "partnerships" with established large or medium size agribusinesses as well as SME investors starting up new agribusiness ventures have been particularly successful in Sri Lanka (under USAID "Biz-Plus" and prior activities in Sri Lanka). See also the FAO study on Agribusiness Investment Funds (2010) summarized in the GIZ paper, "Agricultural Finance—Trends, Issues and Challenges" (July 2011), pp. 23-24.

[44] On value chain finance (VCF), among the most useful sources for applicability in Timor-Leste are the GIZ paper (op. cit., pp. 44-47) and sections of the USAID paper, "Rural and Agricultural Finance—Taking Stock of Five Years of Innovations" (December 2011), pp. 4-5 and 10-16.