RWANDA

Diagnostic Trade Integration Study

Final November 1, 2005

REPUBLIC OF RWANDA

Weights and Measures

Metric System

Fiscal Year

January 1 - December 31

Currency Unit

Rwandan Franc

Average Exchange Rates

2004: US$1.00 =573
2003: US$1.00 =538
2002: US$1.00 =476
2001: US$1.00 =443

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ACRONYMS

ACBF	African Capacity Building Foundation	EBA	Everything But Arms
ACP	African Caribbean and Pacific Group	EICV	Household Survey
ADAR	Assistance a la Dynamisation de l'Agri Business au Rwanda	EPZ	Export Processing Zone
AGOA	Africa Growth and Opportunity Act	EU	European Union
ASYCUDA	Automated System for Customs Data	FAO	Food and Agricultural Organization
ATI	Africa Trade Insurance Agency	FDI	Foreign Direct Investment
AVU	African Virtual University	GATS	General Agreement in Trade and Services
BACAR	African Continental Bank of Rwanda	GDP	Gross Domestic Product
BADEA	Arab Bank for Economic Development in Africa	HIPC	Heavily Indebted Poor Countries
BCDI	Bank of Commerce Development and Industry	ICAO	International Civil Aviation Organization
BCR	Commercial Bank of Rwanda	IF	Integrated Framework
BNR	Banque National du Rwanda	IFAD	International Fund for Agriculture Development
BRD	Rwanda Development Bank	IMF	International Monetary Fund
CAPMER	Center for Promotion for Small and Medium Enterprise	IRST	Institute of Research Science and Technology
CAS	Country Assistance Strategy	ITC	International Trade Center
CDF	Community Development Fund	ITF	International Task Force on Commodity Risk Management
CEIKs	Community Electronic Information Kiosks	ITU	International Telecommunications Union
CET	Common External Tariff	KIST	Kigali Institute of Technology
COMESA	Common Market for Eastern and Southern Africa	LARIS	Land Records Information System
COMTRADE	Commodity Trading Statistics Database of the UN	LDC	Least Developed Countries
DFID	Department of International Development	MDGs	Millennium Development Goals
DTIS	Diagnostic Trade Integrated Study	MFN	Most Favored Nations
MINICOM	Ministry of Commerce	RRA	Rwanda Revenue Authority

MINGARI	Ministry of Agriculture	RPSF	Rwandese Private Sector Federation
MINIJUST	Ministry of Justice	RSSP	Rural Sector Support Project
MININFRA	Ministry of Infrastructure	SADC	Southern African Development Community
MTEF	Medium Term Expenditure Framework	SIDA	Swedish International Development Agency
NABARD	National Bank for Agricultural Development	SME	Small and Medium
NGO	Non Governmental Organization	SPS	Sanitary and Phytosanitary
ONATRACOM	Rwandese National Transport Company	UNCTAD	United Nations Conference on Trade and Development
ORTPN	Rwanda Tourist Department	UNDP	United Nations Development Program
PIKs	Provide Public Information Kiosks	UNIDO	United Nations Industrial Development Organization
PPPMER	Rural Small and Micro Enterprises Promotion Project	UNR	Rwanda National University
PRSP	Poverty Reduction Strategy Paper	US	United States
RBS	Rwanda Bureau of Statistics	USAID	United States Agency for Development
RIEPA	Rwanda Investment and Export Promotion Agency	VAT	Value Added Tax
RITA	Rwanda Information Technology Agency		

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Executive Summary

Objective The primary objective of this study is to assist the Government of Rwanda in defining a strategy and an integrated approach towards greater participation in regional and global markets. A key element of the report is an assessment of the main obstacles to trade both within Rwanda and in foreign markets. To this end, the study aims to: (i) identify weaknesses and barriers preventing Rwanda's integration into regional and global markets; (ii) provide the basis for the implementation of an integrated approach to trade, investment, and sector development activities for traditional as well as non-traditional areas with high growth potential; and (iii) provide a framework to better integrate the efforts of key stakeholders (government, the private sector, multilateral and bilateral donors) to promote pro-poor trade and investment and assist Rwanda's progress towards the Millennium Development Goals (MDGs). The ultimate aim of the Integrated Framework, of which this diagnostic study is key element, is to mainstream trade issues into the national poverty reduction strategy. In the case of Rwanda, trade does not figure strongly in the current Poverty Reduction Strategy Paper (PRSP) although the Integrated Framework process has already contributed to improving the situation and the 2005 PRSP Annual Progress Report has much stronger attention to trade, based on the draft text of this DTIS.

The first message of this DTIS is that trade can, and indeed must, play a key role in achieving the ambitious targets that Rwanda has set for growth and poverty reduction. Rwanda has initiated a broad economic reform agenda since 1994, establishing the rule of law, providing macroeconomic stability, establishing new economic and financial institutions, privatizing state enterprises, developing human resource capacity and repairing infrastructure. Building on this reform agenda, ambitious targets have been set for growth and poverty reduction in the government's Vision 2020 and in the PRSP. The government has defined a vision of achieving significant progress in social indicators and reducing the share of the population in poverty from 60.3 percent to 32.5 percent under the baseline PRSP growth scenario of about 6 percent on average. At present annual exports per capita in Rwanda amount to just $18 compared to an average of $145 in sub-Saharan Africa. There is considerable scope, and indeed a necessity, for increased exports. To achieve the poverty reduction targets will require greater involvement of the poor, who overwhelmingly reside in rural areas, in commercial activities. This in turn requires the alleviation of a range of barriers that limit their participation in markets, both national and international. For trade to be the major vehicle for poverty reduction will require structural transformation of the rural sector and sustained efforts to reduce a wide range of constraints to supply.

The second message of this DTIS is that efforts to improve rural incomes need to focus both on increasing agricultural production and productivity in traditional export industries and on developing non-traditional activities. Agriculture is the dominant activity for the 90 percent of the rural population living in rural areas. The industrial sector is very small.[1] Two aspects of rural poverty in Rwanda are crucial. First, those employed in producing traditional commercial crops for export, coffee and tea, tend to be less poor than farmers involved in non-market production and such subsistence agriculture still dominates the rural architecture. Hence, encouraging farmers to shift into commercial crops whilst taking measures to raise returns to coffee and tea farmers will be strongly poverty reducing. Second, working outside of the farm sector is highly correlated with the probability of not being poor. Thus, initiatives that increase opportunities to work outside of farming or in high

[1] According to 2002/3 survey of enterprises, total employment in the industrial sector was only 36,000, most of it in the public sector enterprises. This is a very small industrial base in relation to the almost half a million farmers who grow, at least some, coffee.

value added agricultural sectors, such as horticulture, will also have a significant impact on poverty. However, the small size of the non-farm sector in Rwanda means that, whilst its incremental contribution to employment growth can be significant, initially it will be modest. So, in the short-term, reinforcement of the traditional export sectors through measures that suppress barriers that reduce returns to farmers, by increasing productivity and by raising quality will be the key to poverty reduction. Sustained growth over the medium to long-term will then need to be supported by a flourishing of non-traditional agricultural activities and the non-farm sector.

The third message of this DTIS is that strengthening traditional exports is complementary to a policy of diversification. Increasing returns to coffee farmers, for example, not only encourages other farmers to shift out of subsistence activities into the production of exportable crops but also increases the flow of cash into rural areas and thereby expands the scope for the development of other marketable activities and for increasing specialization. Providing access to transport and reducing transport costs is a crucial element in increasing returns to those producing traditional exports but is also vital in linking rural communities to markets. Access to transport is a key factor affecting the propensity of poor farmers to switch away from subsistence activities into the production of commercial crops. But is also important in allowing other activities in which Rwanda may have a comparative advantage, such as horticulture and handicrafts to prosper. ***Nevertheless, a substantial increase in non-farm employment will be required*** given population growth, the limited availability of land and the need to raise agricultural productivity. The government has identified ICT (Information and Communications Technologies) as a key sector to underpin growth in the long run, to provide for employment and to turn the country's high, but very young, population into a driver of development rather than a constraint. The ICT sector can contribute in terms of improving productivity in existing sectors and as a source of exports of services in its own right. However, substantial investments in developing human capacity and ICT infrastructure will be required for this vision to come to fruition.

The fourth message is that the key barriers to trade are supply-side restrictions in Rwanda. The background described above, which stresses support for traditional sectors whilst developing new higher value-added activities, is consistent with the growth strategy that the government has defined and the specific strategies that have been specified for the traditional export sectors. However, there are significant barriers to the effective implementation of the growth strategy and to poverty reduction. These are the focus of this report, the key barriers that constrain the impact of trade in fuelling higher and sustained rates of growth. The broadest conclusion is that the principal constraints are those on supply in Rwanda. Whilst there are still important initiatives that can be taken to improve access to overseas markets these alone will have a relatively small impact compared to actions that provide for a more effective supply response in Rwanda.

This report classifies the constraints into four broad categories in an indicative order of priority;

- Barriers that directly raise the costs of trade and limit linkages with markets
- Constraints on the ability of households to move into commercial activities
- Weaknesses in the climate for investment and for private sector development
- Lack of institutional support for trade and export diversification.

BARRIERS THAT DIRECTLY RAISE THE COSTS OF TRADE

These reduce the returns to those involved in trade in Rwanda. They should be treated as the main priority, since measures that reduce these costs are likely to be more directly translated into higher incomes for the poor so increasing the flow of cash into rural areas. In addition to the direct impact of raising incomes of farmers currently producing commercial crops, higher returns to commercial activities will be fundamental to encouraging other households to shift out of subsistence activities into producing marketable goods and services. However, for this to be effective will require the removal of barriers to a transition into commercial production, as discussed in priority two below.

The main factors that effectively increase the distance of Rwanda from world markets and that directly reduce the returns to trading activities in Rwanda are transport and communication costs and customs.

A. Transport Costs

There are two broad issues in the context of transport. First, is the cost and access to rural transport. Currently ***rural roads are in very poor condition***, which substantially increases vehicle operating costs and therefore the price of transport services. Improving rural roads will reduce these costs and improve the scope for effective logistics services. Provided there is sufficient competition amongst transport providers, lower transport costs should be reflected in higher returns to farmers. For many in rural areas, however, there is no effective access to transport services and this is a prohibitive constraint on their ability to participate in commercial activities. Improving rural roads is necessary to open the opportunity to more rural families to produce marketable goods and services and so the potential for higher returns and incomes. Poor roads are also a significant constraint to the development of the tourism sector. Second, ***the cost and reliability of using the corridor routes that provide access to gateway ports is a severe impediment to Rwanda's capacity to access world markets.*** The cost per ton of transport from Kigali to Mombasa can be as much as 70 percent higher than that between Kampala and Mombasa. Equally, if not more important than the monetary cost, are the extreme delays that goods to and from Rwanda face in transit along the corridors. The average transit time from Mombasa to Kigali is four weeks. The long delays on these routes reflect congestion in the ports but also substantial procedural obstacles that can explain up to half of the time in transit. Therefore, ***there is scope to substantially reduce transit times***, which will reduce costs and allow for more efficient planning and scheduling of transport services on the corridors.

B. Customs

Whilst times for customs clearance for imports (currently around 3 days) compare well with other countries in the region, ongoing computerization and the effective implementation of international approaches to risk assessment, selectivity and valuation should permit further reductions. The average time to clear export (2 days) is high and strong attempts should be made to substantially reduce the current times. The current MaGeRwa handling fee is disproportionate to the services provided to traders and is a disguised tax on trade. It should be replaced by a fee commensurate with the services provided.

C. Information and Communications

Communication costs, access to market information, direct contact to buyers and linkages to financial institutions and government are key elements in linking households and firms to markets. They are especially important for international trade and in facilitating the development of new and differentiated export products. Improving access to low cost ICT services will be an important factor determining the flow of information into and out of rural areas and the extent to which rural households can effectively participate in trade and shift into commercial activities. The spread of ICT services will in turn, depend on the provision of modern energy supplies to rural areas, as discussed below. In addition, as the ICT sector develops, it is expected that opportunities for exports of software and other ICT services will become available. This will reinforce the key role that the ICT sector will play in providing the employment that will be required as the rural sector develops and agricultural productivity improves. However, this will be very much dependent upon a significant and broad-based improvement in the Rwandan educational system. Whilst the government has enumerated a strong ICT strategy, infrastructure, institutions and human capacity remain very weak and limit the role of ICT in stimulating trade and development.

BARRIERS THAT CONSTRAIN THE ABILITY OF PRODUCERS IN RWANDA TO MOVE INTO NEW ACTIVITIES AND TAKE ADVANTAGE OF TRADE OPPORTUNITIES

Of particular importance to poverty reduction are factors that constrain the ability of farmers to move into commercial crop production and non-farm activities and that reduce the incentives to make such an adjustment. Reducing trade costs and raising returns to commercial production increase incentives to move into new activities but there are substantial barriers that limit farmers' responses. The key barriers identified in this report are:

Lack of access to credit. Shifting from subsistence into commercial production requires financial resources to purchase new plants or materials, to cover the initial period when the new activities do not generate income and to protect against the higher risks that accompany the higher returns from producing for commercial sale. These financial resources are simply not available to most households in rural areas. Currently, only 2.3 per cent of bank credit is used to finance activities in the agricultural sector (which employs 90 per cent of the population and accounts for 40 percent of GDP). This reflects, but at the same time sustains, a rural sector based around subsistence and informal activities. Whilst important, microfinance schemes cannot provide a broad solution to this problem. Without an increase in the activities of formal financial institutions in rural areas there will be little success from raising incentives to commercial production and in stimulating monetization and the development of rural markets.

Lack of organization of the rural sector. The lack of effective organization of the rural sector is a substantial barrier to the emergence of market oriented activities. The highly fragmented nature of the rural economy limits the scope for financial intermediation in rural areas and constrains the emergence of effective supply chains linking rural producers to local, regional, national and international markets. A key initiative must be to strengthen the role of cooperatives, first, by clarifying their legal standing and then by raising capacities to organize members, to develop business plans and to attract and manage credit.

Lack of access to energy. Access to modern energy (electricity and petrol) is crucial to export diversification, non-farm growth and poverty reduction. Attempts to add value to exportable products are often dependant on the availability and reliability of modern energy supplies. Access to electricity is a strongly significant determinant of the probability of being poor. Widespread extension of the electricity grid in rural areas is not feasible in the timeframe of achieving the objectives of the government's growth strategy. However, there does appear to be scope for the effective targeting of local "micro-hydro" based independent grids. What is required initially is the development of a strategy to maximize the returns to the available opportunities for bringing modern energy to rural communities.

Lack of extension services. Farmers need advice and assistance if they are to shift into new activities that require new techniques and skills. For example, for the objectives of the coffee strategy to be met, farmers will require extensive training in all aspects of production from planting through care and maintenance to harvesting and transportation. Around half a million farmers will need this training! At present the number of agronomists working in rural areas is totally inadequate to meet this need.

These first two broad priorities discussed above are fundamental to increasing returns to tradable activities in rural areas and to removing the constraints that directly limit the ability of farmers in rural areas to adapt to the opportunities that are available to produce commercial crops and to shift into non-traditional agricultural products and non farm activities. Whilst support for traditional activities is the main mechanism for poverty alleviation in the short-run, if the longer term objective for sustained growth is to be fulfilled then there will have to be a substantial expansion of private sector activities in Rwanda. Providing an environment conducive for investment and private sector development is therefore a critical requirement for long-run growth and employment generation.

MEASURES TO ENHANCE THE CLIMATE FOR INVESTMENT AND FOR PRIVATE SECTOR DEVELOPMENT

Whilst substantial steps have been made towards creating a new business environment which will enhance the competitiveness of Rwanda firms, there is still much that can be done to further reduce the costs of doing business in Rwanda and to make the business climate more favorable to both domestic and foreign investment. ***Legal reform is incomplete and there is a need to further strengthen the legal system and the capacity of legal professionals to effectively and consistently apply business laws.*** Regulations relating to land ownership, and improving the services of the cadastre system in order to modernize land titling and facilitate registration are of particular importance as are rules on competition and intellectual property to support the ICT strategy. Key elements of the costs of doing business remain high relative to neighboring countries, especially with regard to the costs of starting a business, the time and cost of registering property and the ability to effectively enforce contracts. There is plenty of scope to streamline business regulations, increase transparency and reduce the costs for firms in complying with the legal regulations. ***A further requirement to support private sector development will be the provision of reliable supplies of electricity.*** This will necessitate a fundamental restructuring of electricity tariffs and a solution be found for the severe financial imbalances in the energy sector.

MEASURES TO SUPPORT TRADE AND EXPORT DIVERSIFICATION

There is also a need to strengthen institutions that support trade and investment and that will be crucial in facilitating the move to a more diversified export base. The key institutions are those responsible for (i) trade policy and in defining and representing Rwanda’s interests in regional and multilateral negotiations; (ii) export promotion and export development; and (iii) standards and quality.

(i) Trade policy could be used to support development by reducing to zero duties on raw materials and striving for lower tariffs on finished products and by joining the WTO Information Technology Agreement and offering to liberalize ICT-related services sectors through the GATS. This would support and enhance the ICT strategy. Such a move would provide a clear signal to investors both within and outside of Rwanda of the government’s commitment to a strong and open policy towards ICT. There is strong case for technical assistance to strengthen analytical capacities and support negotiating capacities. In preferential and regional agreements Rwanda should be pushing for more development-friendly rules of origin and progress on opening up services. There is also a need for technical assistance to improve the quality of trade data. Reliable data are a necessary input into careful trade policy analysis and to a well designed export promotion strategy.

(ii) Effective export promotion activities will be required to provide for sustained export growth and for export diversification towards non-traditional exports. ***Current export promotion activities and initiatives in Rwanda are*** fragmented***, uncoordinated and incomplete.*** There is an urgent need to coordinate and systematise these efforts through effective implementation of a targeted export promotion the key elements of which have been defined, although a more precise export diversification plan needs to be enumerated.

(iii) ***Diversification of exports into higher value-added products, such as horticulture, will require building the country's food safety and sanitary and phytosanitary management capacities and addressing the weaknesses that undermine product quality.*** The priority should be investments in awareness, recognition and application of basic good practices for hygiene and safety among farmers and entrepreneurs to provide the foundation for a strong food standards system. Technical assistance and training on good agricultural practices and Hazard Analysis and Critical Control Points (HACCP) are essential to support an export strategy for processed agricultural products.

The discussion above concentrates on the broad economy-wide constraints that limit trade and growth in Rwanda. However, this report also identifies a number of ***complementary sector-specific initiatives in the key sectors of coffee, tea and*** tourism ***that will be necessary for the targets of the growth strategy to be met***. In the main these reflect the need to strengthen institutions with particular responsibility for these sectors and to raise sector-specific skills. Within the tea sector, there is a particular need to address the issues of pricing and privatization, which are necessary for the strategy of raising quality and productivity to come to fruition.

Lastly, certain sectors, and in particular, ICT, horticulture and handicrafts, have been identified as the main potential drivers of diversification of the Rwandan economy.[2] These sectors have the potential for strong poverty reduction. Again, there are both physical infrastructure and human capacity constraints which must be addressed if these sectors are to flourish. A more effective organization of the rural sector and the reinforcement of cooperatives will be required for the effective transfer of knowledge and techniques that are necessary to support quality and the satisfaction of regulations and buyers standards in overseas markets that are crucial for export growth in these sectors.

Table 1 presents these priorities and the key actions that will be needed to address the underlying constraints to trade. The table also specifies an appropriate timeframe, the responsible bodies within Rwanda, a suggested monitoring indicator and finally the source of existing and potential donor support. Table 2 complements this action matrix by specifying whether implementation of these actions can be characterized as primarily requiring investment, policy or legislative change, capacity building or policy/strategy development and or further study.

[2] Subsequent to the main DTIS mission and the compilation of the draft of this report, the government identified hides and skins and minerals as strategic sectors. A study of these sectors has recently been initiated and the conclusions will inform subsequent policy developments.

Table 1. Action Plan for Major Trade Issues

Constraint	Recommended Actions/Measures	Proposed Timeframe	Responsible Bodies	Indicative target	Existing or proposed activities
Priority 1: Reduce Trade Costs and Increase the Returns to Exporting					
Transport and Customs A. High cost and limited access to rural transport reduces returns to trade and constrains the ability of rural farmers to produce commercial crops	Develop strategy to improve rural transport Implement rural transport strategy	2005 2005-10	MININFRA MINAGRI MINALOC RSSP	Increase number of farmers with access to a road by x% and reduce share of transport costs in farm gate prices	ADB, EU (W2)
B. Delays on the main corridors raise the costs of trade	Use participation in regional trade agreements, EPA negotiations and corridor organizations to enhance transit facilitation in gateway countries.	2005-06	MINAFFET MINICOM MININFRA RRA, RPSF	Lower transit times on both corridors by 50 percent Ensure national treatment for Rwandan transporters	WB (EATTF) (W2)
C. Lack of cold storage facilities reduces returns to horticulture	Continue to upgrade cold storage facilities along whole chain	2005	MINAGRI	Volume of cold storage capacity to support x tons by 2007	Dutch Embassy
D. Continued modernization and computerization of customs is required to reduce long clearance times and uncertainty	Effectively apply all modules of Asycuda and reinforce valuation unit in Customs	2005-06	MINICOM RRA	Reduce clearance time to 2 days - imports and 3 hrs – exports by 06.	DFID
	Enhance and sustain training of customs officials. Raise capacity and awareness of private sector.	2005-07	MINICOM RRA, RPSF	All officials receive annual training	DFID
E. Current MaGeRwa fee of 4% is a tax on trade	Replace with a fee based on services rendered and facilitate competition in warehousing	2005	MINICOM RRA MINECOFIN	New fee introduced and choice of warehousing available	
ICT D. Lack of access to low cost ICT services and the internet constrains linkages to international markets and the flow of information. Low awareness of the benefits of ICT, lack of human capacity and limited quality assurance for the IT industry constrains ICT's ability to reduce trade costs.	Improve infrastructure, human capacity and awareness of ICT, especially in rural areas. Support RITA and RURA to monitor the quality of ICT services, ensure a competitive local ISP market and join regional initiatives to reduce cost of internet access.	2005-2007	MININFRA MINECOFIN RITA, RURA	Relevant rural IT systems installed. Number of people with access to internet rises by x%. LARIS and other government back office systems with a direct impact on trade costs are fully implemented.	SIDA?

W2 = suggestions for funding under Window II, of the Integrated Framework Trust Fund

Table 1. Action Plan for Major Trade Issues					
Constraint	Recommended Actions/Measures	Proposed Timeframe	Responsible Bodies	Indicative target	Existing or proposed activities
Priority 2: Remove Barriers to Participation in Commercial Activities and Trade					
A. Lack of access to credit is a major constraint for farmers and SMEs	Improve information on available financing	2005	MINECOFIN, BNR, RIEPA RPSF, UBPR	Increase amount of credit to rural sector from 2.3 – 5% by 2007	FSAT study Road map for financial sector
	Provide training to suppliers, bankers and cooperatives on project preparation, evaluation and finance	2005-08	CAPMER, NBR	X cooperatives, suppliers and bankers receive training	
B. Weak organization of the rural sector limits role of market activities and constrains ability to access credit	Strengthen legal basis and develop a national policy on cooperatives and farmers' organisations	2005	MINICOM, MINAGRI	Increase productivity of existing coops and raise number of coops	
	Support financial development of cooperatives and farmers' organisations	2005-06	MINECOFIN,MINICOM	Increase no. of cooperatives providing financial services to members	
C. Lack of access to electricity constrains rural development and expansion of non-farm activities	Define strategy for rural electrification and support schemes to develop small-scale local electricity supplies and undertake feasibility studies	2005-10	MININFRA, RIEPA	Identify potential beneficiary projects by 2005 and implement by 2010	Royal Netherlands Embassy? WB UEP? (W2)
D. Lack of knowledge of potential markets limits ability of farmers to efficiently choose which crops to produce and lack of extension services limits ability of farmers to produce cash crops and raise quality	Disseminate existing research and undertake new research focused on providing farmers with a business model for reaching new markets	2005-10	MINAGRI, RIEPA, ISAR, MINICOM	Increase proportion of farmers producing commercial outputs	(W2)
	Increase the number of agronomists and the reach of extension services – target poor households with propensity to produce commercial crops	2005-10	MINAGRI, ISAR, MINALOC	Increase the number of agronomists by x Increase coverage of extension services by x number of farmers	

Table 1. Action Plan for Major Trade Issues					
Constraint	Recommended Actions/Measures	Proposed Timeframe	Responsible Bodies	Indicative target	Existing or proposed activities
Priority 3 Improve the Climate For Investment and Competitiveness					
A. Legal reform is incomplete and the capacity to effectively and consistently apply business laws needs to be strengthened	Review and replace obsolete laws and regulations in the following areas commercial code, contract laws, bankruptcy, land registration, competition law, intellectual property law	2005-07	MINICOM, MINIJUST	New laws in place consistent with international best practice and external commitments	(W2) WB CEDP
	Enhance training and legal education of judges, lawyers and the business community – ensure effectiveness of arbitration centre	2005-07	MINIJUST	Business arbitration centre seen as effective (survey)	WB CEDP
	Improve system of land registration	2005-06	MINITERE	LARIS implemented	WB CEDP
B. High costs of doing business limit competitiveness and investment	Streamline business regulations and reinforce one-stop centre	2006-08	MINICOM, RIEPA	Improvement in cost of doing business indicators and increase % of registered investments operationalised from 50-75% by 2006	WB CEDP
C. Lack of business skills and knowledge constrain growth of the SME sector	Implement SME business development program to transfer knowledge, experience and best practices.	2005	CAPMER, PPPMER, RIEPA		WB CEDP EU
D. Unreliability and cost of energy supplies	Introduce more rational tariff structure	2005-10	ELECTROGAZ, MININFRA	New tariff structure introduced	WB CEDP (W2)
	Address financial imbalances	2005	ELECTROGAZ, MININFRA	Electrogaz debts significantly reduced	
	Review taxation of petroleum products, particularly where this impacts on competitiveness		MINICOM, RPSF, MINECOFIN	Structure of petroleum taxes is changed	

Table 1. Action Plan for Major Trade Issues (continued)

Constraint	Recommended Actions/Measures	Proposed Timeframe	Responsible Bodies	Indicative target	Existing or proposed activities
Priority 4 Develop Trade Support Institutions and Capacities					
A. Standards and exports Lack of capacity for standards and quality management constrains diversification into agro-processed exports	Provide training on good agricultural practices and HACCP	2005-07	MINAGRI	Number of farmers receiving training in good agricultural practice	EU
	Facilitate development of quality, systems and consumer-oriented certification services	2005-08	RBS, MINAGRI	Relevant certification services are available to producers	EU WB CEDP
	Develop SPS enquiry points with an information services for Rwandan producers and exporters	2006	RBS, MINAGRI, MINICOM	Enquiry point up and running by end 2006	EU
B. Trade Policy Trade policy could do more to support export development and diversification. Lack of capacity constrains ability to pursue national interest in regional organizations and EPA and WTO negotiations	Enhance trade policy capacities	2005-07	MINICOM, RRA MINICOM	Government of Rwanda has an expert in each area of negotiations + focal point in each Ministry	EU
	Reduce duties on raw materials to zero and join the Information Technology Agreement	2005-07	MINICOM		
	Improve trade data	2005		Rwanda's customs data meets international standards	EU RISP
C. Export Promotion Current export promotion and export development activities are fragmented uncoordinated and incomplete	Effectively coordinate & implement detailed export promotion and diversification action plan	2005-06	RIEPA	Detailed plan produced and implemented	WB CEDP
	Enhance trade information and documentation centre - trade point	2005-07	RIEPA, RPSF CAPMER	Trade point up and running	GTZ
D. Capacity for DTIS Implementation Lack of capacity will constrain ability to implement and monitor the recommendations of the DTIS	Establish effective implementation mechanism	2005	MINICOM in cooperation with other ministries and stakeholders	Effective implementation mechanism in place	(W2)?

Table 1. Action Plan for Major Trade Issues (continued)					
Constraint	Recommended Actions/Measures	Proposed Timeframe	Responsible Bodies	Indicative target	Existing or proposed activities
Complementary Priorities: Sector Specific Actions[3] to Enhance Poverty Reduction Strategies					
Coffee OCIR-Café lacks a strategy to ensure the goals of the coffee strategy are met	Support OCIR-Café with technical assistance to develop stronger role in marketing and extension services	2005	MINICOM OCIR Café	New strategy developed for OCIR Café by 2006	EU Stabex (W2)
Tea Delay in privatization and lack of implementation of the recommended pricing policy limit the impact of the tea strategy.	Review pricing to provide greater premium for higher quality	2005-06	OCIR The, MINICOM	Sales of good leaf tea rise to 75% by 2007	EU Stabex (W2)
	Address issue of privatization	2006-08	Privatisation Secretariat	Privatise half tea plantations by 2007	WB CEDP
Tourism Lack of human capacity constrains investment	Rapid and extensive training for the tourism sector	2006-08	MINEDUC, ORTPN	X workers in tourist industry receive training	
Horticulture Lack of clear business investment opportunities and support to potential exporters	Existing studies must be used and further work undertaken to provide sector business plans for investment and a horticultural incubator fund	2005-08	RIEPA, MINAGRI, CAPMER	Horticulture incubator fund established X sector business plans horticulture exports rise by 50 tons per year	EU Stabex? OnTheFrontier-led strategy being developed
Handicrafts Lack of organisation is a major constraint on the expansion of activity. Lack of quality and reliability of supply limit exports	Develop a strategy for the effective commercialisation of activity and initiatives to raise supply capacity and quality	2005	RIEPA, MINICOM RBS, RPSF	Strategy developed and implemented	

[3] Subsequent to the main DTIS mission and the compilation of the draft report the Government has identified hides and skins and minerals as strategic sectors. Studies have recently been initiated for these sectors and the conclusions will inform subsequent policy developments.

Table 2: Classification of Key Actions According to Measures Required

A. Actions Requiring Long-Term Investment

- Implement rural transport strategy
- Continue to upgrade cold storage facilities along whole chain
- Address lack of ICT infrastructure, human capacity and awareness, especially in rural areas
- Increase the number of agronomists and the reach of extension services – target poor households with propensity to produce commercial crops
- Support schemes to develop small-scale local electricity supplies

B. Actions Requiring Policy/Legislative Change

- Replace Magerwa fee with a fee based on services rendered and facilitate competition in warehousing
- Strengthen legal basis and develop a national policy on cooperatives and farmers' organisations
- Streamline business regulations and reinforce one-stop centre
- Review and replace obsolete laws and regulations in the following areas commercial code, contract laws, bankruptcy, land registration, competition law, intellectual property law
- Improve system of land registration
- Introduce more rational tariff structure for electricity
- Address financial imbalances in energy sector
- Reduce duties on raw materials to zero and join the Information Technology Agreement
- Review pricing for tea to provide greater premium for higher quality
- Address issue of tea privatization

C. Actions Requiring Capacity Building

- Establish effective implementation mechanism for the DTIS
- Effectively apply all modules of Asycuda and reinforce valuation unit in Customs
- Enhance and sustain training of customs officials. Raise capacity and awareness of private sector.
- Use participation in regional trade agreements, EPA negotiations and corridor organizations to enhance transit facilitation in gateway countries.
- Support RITA and RURA to monitor the quality of ICT services, ensure a competitive local ISP market and join regional initiatives to reduce cost of internet access.
- Support financial development of cooperatives and farmers' organisations
- Improve information on available financing
- Provide training to suppliers, bankers and cooperatives on project preparation, evaluation and finance
- Enhance training and legal education of judges, lawyers and the business community – ensure effectiveness of arbitration centre
- Implement SME business development program to transfer knowledge, experience and best practices
- Provide training on good agricultural practices and HACCP

Table 2: Classification of Key Actions According to Measures Required (cont.)

- Facilitate development of quality, systems and consumer-oriented certification services
- Develop SPS enquiry points with an information services for Rwandan producers and exporters
- Enhance trade policy capacities
- Improve trade data
- Effectively coordinate & implement detailed export promotion and diversification action plan
- Enhance trade information and documentation centre - trade point
- Support OCIR-Café with technical assistance to develop stronger role in marketing and extension services
- Rapid and extensive training for the tourism sector

D. Actions requiring policy/strategy development and/or further study

- Develop strategy to improve rural transport
- Define strategy for rural electrification and undertake feasibility studies for schemes to develop small-scale local electricity supplies
- Disseminate existing research and undertake new research focused on providing farmers with a business model for reaching new markets
- Review taxation of petroleum products, particularly where this impacts on competitiveness
- For horticulture, existing studies must be used and further work undertaken to provide sector business plans for investment and a horticultural incubator fund
- For handicrafts, develop a strategy for the effective commercialisation of activity and initiatives to raise supply capacity and quality

Chapter 1 Introduction: Outline of the Report and the Socio- and Macroeconomic Context

BRIEF OVERVIEW

1.1 ***This report focuses on identifying, and proposing solutions to, the main barriers that limit the role of trade as a fundamental driver of growth and poverty reduction in Rwanda.*** The initial chapters provide the background and context for the subsequent analysis of barriers to trade. This chapter discusses the general socio-economic background and the macro-economic environment and is followed, in the next chapter, by analysis of the key features of poverty in Rwanda. Poverty is almost entirely a rural phenomenon and the key challenge in developing the rural sector is to facilitate the shift out of subsistence activities into commercial activities. Based on a statistical analysis using available household survey information, the chapter shows that community characteristics, and in particular, access to transport and access to energy are key determinants of the propensity to be poor in Rwanda. Simulations, using the specific example of coffee, are presented that show that improvements to transport and lower transport costs, *if passed on to farmers* in terms of higher returns to commercial farming activities, would have a significant impact on poverty. Higher returns to commercial activities, such as coffee, will increase the flow of cash into rural areas and expenditure on other goods and services produced by rural households. The analysis also shows that farmers who shift out of subsistence into activities such as coffee receive substantially higher incomes and that facilitating such a transition would have a very strong impact on poverty. The poverty analysis also shows that higher returns to farmers from producing higher quality exports would also be strongly poverty reducing. Individually, these three issues have significant impacts on poverty. If they take place together they will interact to have more substantial effects. Improving access to transport and lowering transport costs will reinforce the strategy of raising quality and will increase the returns to farmers of shifting out of subsistence activities. However, for this rural development to occur will require that a number of barriers that constrain the ability and desire of farmers to move into market oriented activities are removed.

1.2 The report then moves on to look in detail at the three main traditional export sectors, coffee, tea and tourism, that will lie at the heart of poverty reduction in the immediate term. This chapter highlights the importance of high transport costs, lack of rural organization, inability to obtain credit in rural areas and poor human capacity as the key issues constraining growth. The next chapter reviews in detail the key factors raising the costs of trade in Rwanda, transport and customs that should be the priority for attention. Next the report reviews the main barriers to adjustment and development that constrain the ability of poor rural farmers to move into new activities. In the medium to longer-term growth will have to be sustained by diversification into a broader range of higher value-added activities. This will require a business environment that is conducive to investment and that facilitates the growth of SMEs. Access to modern energy will also be a key factor in allowing processing activities and services based around ICT to flourish. Next the report looks at the institutions that support trade and that are crucial to sustained growth and diversification of exports. Finally, there is a discussion of the key sectors that have been identified as being the source of more diversified and higher value added activities, ICT, horticulture and handicrafts.

SOCIO-ECONOMIC BACKGROUND

1.3 ***Rwanda is still addressing the legacy of the 1994 genocide*** in which close to one million people were killed, two million people were driven into exile, over a hundred thousand people were put in prison, and thousands of people were handicapped, physically and mentally. Following the genocide, however, with human capital, economic infrastructure, and government and private institutions in ruin, Rwanda undertook an extraordinary national regeneration. Almost all refugees have returned and the reconciliation process has progressed significantly.

1.4 ***Rwanda continues to face complex socioeconomic problems.*** Rwanda is a small landlocked country with a population of 8.4 million. Per capita income, at $230 in 2003, is still much lower than the $370 achieved in 1990 and Rwanda remains one of the poorest countries in the world. Sixty percent of households live below the poverty line compared to 40 percent in 1985. The population density of about 350 per km2 is amongst the ten highest in the world. Agriculture is the primary activity for the 90 percent of the population living in the rural areas but Rwanda ran out of new arable land almost 20 years ago and agricultural productivity has not seen any improvement.

1.5 ***Social indicators remain low***, with life expectancy of 49 years in 2000. The incidence of HIV/AIDS is high at over 5 percent of the total population (aged 15 to 49). Rwanda has taken significant strides toward improving social services, reducing gender disparities, and initiating a serious effort to attack HIV/AIDS. Health indicators have improved steadily and are reaching pre-genocide levels. At all levels of education, enrollment rates have increased, with net and gross enrollments surpassing pre-genocide levels and primary school enrollment of girls on a par with that of boys.

1.6 ***While impressive progress has been made, significant challenges remain.*** Regional instability remains a threat to peace and development. Rwanda has made notable progress along an ambitious path of reconstruction, national reconciliation, and economic reforms. In recent years, a bold program of sociopolitical reforms, aimed at improving justice, governance, human resource development, and democratization, has been implemented in parallel with ongoing economic reforms. Building on this reform agenda ambitious targets have been set for growth and poverty reduction in the government's Vision 2020 and in the Poverty Reduction Strategy Paper (PRSP). Trade will have to play a key role in meeting these objectives. Experience shows that the impact of trade on growth is stronger in a stable macro-economic environment, an issue to which we now turn.

MACROECONOMIC DEVELOPMENTS AND INTERNAL BALANCES

1.7 ***The last decade has seen strong growth but recent performance has faltered.*** Rwanda has made remarkable progress from genocide to peace and development. Growth rates during this recovery period have been much above Rwanda's historical growth rates, although growth rates have slowed over the past two years due to the drought and the energy crisis. Between 1995 and 2004, the average growth rate was about 8 percent. Annual average inflation came down to less than 4 percent during 1999-02, but has subsequently risen to over 10 percent during 2004 and early 2005 mainly due to food shortages and rising energy prices[4]. The recovery of the agriculture sector and reconstruction efforts, supported by donor funds, has largely contributed to this performance. While agriculture and construction were the main sources of growth, neither manufacturing nor commerce had regained their 1993 levels by end 2004.

1.8 ***The Rwandan economy is based on agriculture***, which accounts for 41 percent of GDP and employs about 90 percent of the rural population. Services account for 38 percent of GDP,

[4] Inflation excluding food and energy remained at about 5 percent.

consisting of wholesale and resale trade, transportation and public administration. Industry accounts for the rest, with roughly half of its share attributed to manufacturing and the other half to construction. The majority of manufacturing firms are small. The larger establishments are primarily engaged in production and/or processing of beer, soft drinks, tobacco, cement, textiles, tea, and coffee. Thus, the economy is heavily dependent on the primary sector, with industry strongly tied to processing of primary products, whose inputs come from the agriculture sector.

Table 1.1

Rwanda : Selected Indicators of Economic Performance (IMF)								
	1996-98	1999-01	2002	2003	2004	2005	2006	2007
Real GDP	11.8	6.8	9.4	0.9	4.0	4.0	4.3	4.5
Inflation (CPI, average)	10.7	1.6	2.0	7.4	12.0	7.0	4.0	4.0
Export volume	14.6	35.2	-10.0	-12.5	26.8	-6.8	6.3	6.2
Terms of trade	3.2	-15.8	-24.1	3.4	13.0	2.6	-3.1	-4.9
Public Finance (as percentage of GDP)								
Government domestic revenue	10.1	10.3	12.2	13.5	13.9	14.6	14.1	14.3
Grants	6.5	7.9	7.2	8.1	11.9	11.9	12.1	11.1
Total expenditure	20.3	19.7	21.2	23.9	26.1	27.0	27.7	27.3
Fiscal deficit (excl. grants)	-10.2	-9.4	-9.0	-10.3	-12.1	-12.4	-13.5	-13.0
Fiscal deficit (incl. grants)	-3.7	-1.5	-1.8	-2.3	-0.2	-0.5	-1.4	-1.8
Balance of payments (as percentage of GDP)								
Current account balance	-17.9	-16.3	-16.6	-19.2	-18.0	-22.0	-20.8	-20.2
Exports, GNFS	6.5	7.8	7.7	8.3	10.3	9.7	9.6	9.5
Imports, GNFS	25.1	24.3	24.5	27.6	28.4	32.2	31.1	30.4
Official reserves (months of imports)	4.4	5.9	6.3	5.0	5.7	4.9	4.6	4.4
External debt	66.8	72.3	85.3	93.4	93.3	73.7	70.8	68.4
Memorandum items:								
Exchange rate (RWF/USD)	307.5	391.4	476.3	537.7	574.6	566.9	572.5	584.0
GDP (USD million)	1736.9	1802.0	1732.0	1683.8	1834.7	2057.3	2209.2	2353.2
Source: Bank and IMF								

1.9 ***Effective implementation of the government's growth strategy will be required to meet poverty reduction objectives***. The government has set the targets of meeting the Millennium Development Goals (MDGs) by 2015 and significantly improving the living conditions of the poor. Such targets need a baseline scenario of at least 6 percent GDP growth and pro-poor policies in the medium to long run. In cooperation with donors, especially in the context of poverty reduction strategy credits of the World Bank, the government has formulated productivity-enhancing strategies in key sectors, including agriculture, energy, water, health, and education. This overall strategy is expected to spur the real sector and continue the growth pattern the country has experienced. However, effective implementation of this strategy has in certain cases been delayed and this will hamper the realization of the growth target. Further, while the government's strategies to achieve high economic growth rates have been identified, significant challenges remain. Regional instability remains a threat to peace and development. A narrow export base, weak physical infrastructure for trade, human resource constraints, high donor dependence and external debt, current electricity shortage, and low capacity of the private sector are some of the key constraints.

1.10 ***Government revenue has recently improved but is still relatively low as a share of GDP***. In recent years total government revenue as a share of GDP has improved significantly. With improved economy and tax collections, revenue increased to 12.6 percent of GDP, which is still lower than the sub-Saharan average of about 20 percent, although the natural resources of a number of sub-Saharan countries should be borne in mind. The low revenue share is mainly due to the large informal sector which has grown significantly relative to the formal sector. Measures to improve tax revenue include the submission to the Parliament of a new tax procedure code and a draft income tax law, which is expected to eliminate ad hoc exemptions. The government is continuing to focus on improving the taxpayer database, collecting tax arrears, and strengthening the large taxpayer unit and tax audits.

Table 1.2

Rwanda: Taxes on international trade, 1998-2004							
	1998	1999	2000	2001	2002	2003	2004
As percentage of GDP	2.5	1.7	1.6	1.9	2.0	2.4	2.5
As percent of total revenue	23.9	17.3	16.9	16.2	16.6	18.1	17.9
As percent of tax revenue	25.2	18.2	17.8	17.6	17.7	19.3	19.5
memo: total revenue to GDP ratio	10.6	9.9	9.7	11.4	12.2	13.5	13.9
Source: World Bank and IMF							

1.11 ***Currently trade contributes less than 20 percent of total tax revenues, which is low, compared to that of most neighboring countries.*** Despite improved overall tax collections through improvements in tax administration in recent years, weaknesses in customs administration remain. The government is making efforts to modernize customs administration, to adopt international norms on valuation and has recently submitted a new customs code to the Parliament. These issues will be discussed in more detail in Chapter 3.

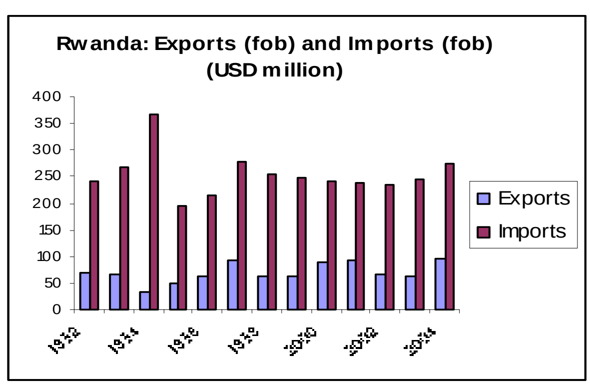
Table 1.3

Rwanda: Tax revenue to GDP ratio	
	2003
Rwanda	13.5
Kenya	17.2
Uganda	11.5
Benin	15.4
Ghana	19.2
Togo	12.2
Burundi	12.4
Nigeria	17.3
South Africa	23.5
Sub-Saharan Africa	19.7
Source: World Bank	

1.12 ***Rising public expenditure has sustained the weak fiscal position***. Total government spending as a share of GDP has steadily increased. The high cost of reconstruction since the genocide and poverty reduction programs have increased spending levels to above 25 percent of GDP during 2004-05. The government has made efforts to reallocate resources to priority sectors, where spending has almost doubled in the past few years. This has resulted in large fiscal deficits, financed mostly by a combination of external grants and concessional loans. The government has an intensive involvement in the social sectors, particularly health and education, which receive 30 percent of total budget and 40 percent of the recurrent budget.

1.13 ***The budget process has been reformed and a Medium-Term Expenditure Framework adopted.*** The reform of the budget process and the strengthening of related institutional capacity have been a focus of the government. The efforts have resulted in the establishment of functioning budget process with clear budget procedures and calendar that are respected, the decentralization of budget preparation, the treatment of social sectors as budget priorities, and adoption of the Medium-Term Expenditure Framework (MTEF).

Fig. 1.1



EXTERNAL BALANCES AND DEBT

1.14 ***The share of exports in GDP is one of the lowest in the world***. Coffee and tea continue to play the key role in the exports of Rwanda, although their share has declined to about 55 percent from 90 percent in mid-1990s. With a significant increase in coffee volumes and higher volumes and price increases for metals such as cassiterite and coltan, exports of goods recovered to $97.7 million in 2004 from $63 million in 2003. Nevertheless, with a narrow export base and low coffee and tea prices, exports of goods as a share of GDP is one of the lowest in the world at 5.3 percent. High volatility of prices for coffee and metals continue to cause major volatility in the external accounts. The terms of trade index in 2004 was 65 compared to 100 in 1995. On the services side, with improved tourism and travel, exports of services increased to about $92 million. Total imports of goods (fob) were $275 million in 2004, which consisted mostly of consumer goods. With $247 million of imports of services, and net income of $34 million (investment income, interest payments, and remittances) the current account deficit as a share of GDP was 18 percent. Most of the current account deficit has been financed in recent years by grants and the rest by concessional loans mostly from multilateral institutions. Gross official reserves are equal to 6 months of imports. Total foreign direct investment is estimated at about $16.4 million during 2002-2005 and during the first four years of this decade FDI as a share of GDP averaged only 3.6 per cent. Rwanda has attracted a very small fraction of the FDI inflows that neighboring countries have been able to attract. An issue that will be discussed in more detail in Chapter 6.

1.15 ***External debt levels are a concern even after HIPC relief.*** Due to high reconstruction needs and the low export base and despite grants from donors, Rwanda had to borrow substantial resources from the international community. This resulted in high debt levels compared to GDP and export revenue. Rwanda's stock of external debt in NPV terms reached $1047 million at end 2004 (57 percent of GDP or 648 percent of exports). In December 2000, the IMF and the World Bank agreed to support a comprehensive debt reduction package for Rwanda under the enhanced Heavily Indebted Poor Countries (HIPC) initiative. In April 2005, Rwanda qualified for the unconditional HIPC debt relief, which amounts to about $726 million in NPV terms, entailing a NPV of debt to exports ratio to 175 percent at end 2004.

EXCHANGE RATE AND EXTERNAL COMPETITIVENESS

1.16 ***The real effective exchange rate has been depreciating gently despite increased aid flows***. Rwanda has gradually introduced more flexibility to the exchange rate regime with a managed float. Foreign exchange bureaus are authorized to buy and sell foreign exchange at freely negotiated rates. Consequently the exchange rate premium in the parallel market gradually has declined. The real exchange rate has depreciated by about 12 percent since 1995 primarily owing to the weakening Rwanda Franc – which fell by about 20 percent in nominal terms.

Fig 1.2 Rwanda: Nominal and Real Effective Exchange Rates (1995=100)

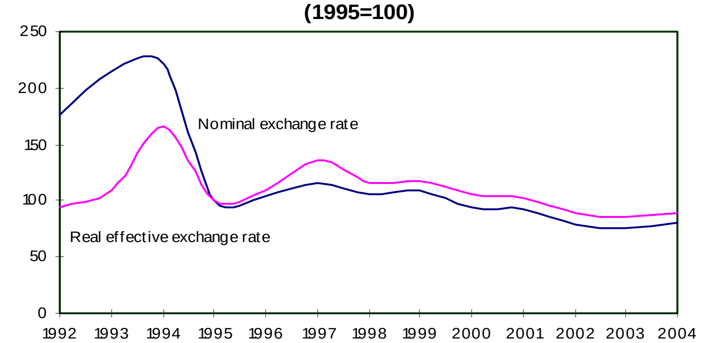
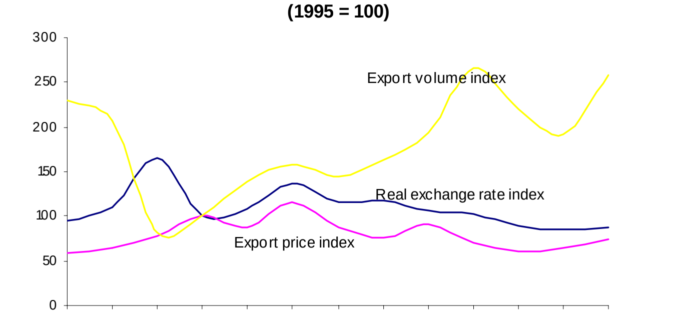


Fig 1.3 Rwanda: Exchange rate, export price and volume indecies (1995 = 100)



1.17 ***The more competitive exchange rate has been favorable to exports***. The volume of exports has been increasing since the mid 1990s, even though there was a big dip during 2002-03 due to a large drop in coltan exports. However, the improvement in external competitiveness through favorable real exchange rate movement has been offset by the 26 percent decline in the export price index since 1995. Also, part of the growth in export volume has been the recovery from its big fall in 1994. For example, Rwanda used to export about 40 thousand tons of coffee in late 1980s before the ethnic conflict started in 1990-91. Coffee exports declined to 13 thousand tons in 1994 and slowly started recovering in recent years. The increase in total exports starting 1999 is mainly due to the coltan boom.

CONCLUSIONS

1.18 ***Key elements of macroeconomic stabilization have been achieved***. Most sectors of the economy have recovered. Inflation has come down from about 50 percent in 1995 to around 11 per cent in 2005 (about 5 percent excluding food and energy). Official reserves are at comfortable levels and the exchange rate system has been liberalized. On the structural and institutional fronts, important changes have been made including privatization of state owned enterprises, financial and banking sector reforms, improved public sector financial management and governance and civil service reform.

1.19 ***However, with high transitional and poverty related expenditures and low tax base, fiscal imbalances remained high at about 10 percent of GDP.*** Given the high debt levels and the fragile nature of grants, even though these imbalances have been mostly financed so far by international donor community with grants and highly concessional loans, efforts to reduce this imbalance must continue in the long run. Improved tax collection rates and an enlarged tax base, fewer tax exemptions and a more efficient public sector should be key objectives.

1.20 ***Given, the relatively stable political and macroeconomic situation and the willingness of the donor community to support the reform agenda, the government has an opportunity to aggressively pursue the reforms that are necessary to promote rural development, to diversify the economy and improve productivity***. An effectively implemented strategy will stimulate private sector led growth and increase domestic and foreign private investment in key sectors of the economy. Trade will play a critical role in determining the extent to which these objectives can be met; therefore within the overall private sector led growth strategy it is important to target those barriers that impinge on trade and constraints on investment and adjustment to take advantage of the opportunities made available by trade.

Chapter 2 Trade, Rural Development and Poverty Reduction in Rwanda

INTRODUCTION

2.1 This chapter provides a background and then motivation to the rest of the report. The focus is on poverty and poverty reduction in Rwanda. Available data on the extent and structure of poverty and the sources of income of the poor is used to analyze the impact of interventions that can increase the returns to households in rural Rwanda. The key features of poverty in Rwanda are that:

- The vast majority of the poor reside in rural areas so that rural development is crucial to sustained poverty reduction.
- The majority of the poor are farmers and the poorest are those that produce mainly for subsistence. Hence, increasing the role of markets and money in rural areas must be a key objective.
- Farmers involved in the production of commercial crops tend to be less poor and have a high propensity to spend on products produced in rural areas.
- Access to transport is a key determinant of the propensity to produce commercial products and transport costs impinge directly on the returns that producers of commercial goods receive.

2.2 ***In the immediate term, improving the returns to farming will be the key vehicle for poverty reduction in Rwanda.*** However, non-farm activities are strongly associated with the propensity to not be poor, so that diversification away from agriculture must be an integral element of a long-term program of poverty reduction. But these two elements of reinforcing agriculture and encouraging diversification should be treated as complementary and part of a broad poverty reduction strategy. Increasing returns to traditional exports is the main way of increasing incomes and the flow of cash into rural areas, thereby stimulating rural markets. Not only do existing commercial crop farmers receive higher incomes but other farmers will be encouraged to substitute away from subsistence production towards commercial crop production. In addition, the key barriers to trade that limit the returns to commercial crops, such as lack of access to transport, to energy and to finance, are also the main barriers to export diversification and to non-farm activities.

2.3 ***Reducing trade costs has the potential to significantly reduce poverty.*** Here we illustrate this by focusing on coffee, the main commercial crop and traditional export, and show that increased returns to coffee farmers, through initiatives to reduce transport costs and to raise quality, would have a significant impact on poverty in Rwanda. In addition we also look at the impact on the income of a farmer who shifts out of subsistence activities into coffee farming and then look at the impact on overall poverty if those farmers who have the propensity to produce coffee actually shift into coffee production. In all cases we find profound impacts on poverty in Rwanda. The results presented here are indicative of the potential poverty impacts of improving the returns to all commercial crops and facilitating subsistence farmers to shift into any commercial activity. In all cases our simulations are likely to strongly understate the broader poverty impact since we do not take into account the second round impact that will arise as higher returns from commercial farming are reflected in higher expenditures in the rural area. However, *it is important to monitor that these improvements are actually passed onto farmers* in terms of higher farm gate prices.

POVERTY IN RWANDA[5]

2.4 ***Poverty in Rwanda is a rural phenomenon,*** as 99 per cent of the poor live in rural areas. The headcount index in rural areas is 47 percent in rural areas against 7 percent in urban areas[6]. There are

[5] The information used in this chapter is from the Rwanda Household Living Conditions Survey (EICV), carried out between October 1999 and July 2001which gathered information on 6420 households, distributed among Rwanda's 12 provinces. The overwhelming majority of the households interviewed live in rural areas.

wide disparities in the level and depth of poverty across provinces. The proportion of the poor is the lowest in Kigali City, with about 10 percent and is highest in Gikongoro, with 75 percent. We now proceed to analyze the key factors which determine the probability of being poor in Rwanda.[7]

2.5 ***Access to good roads, to markets, to credit and to electricity significantly reduce the probability of being poor.*** Community characteristics play a central role in escaping poverty. Most importantly, market access variables (availability of a road, distance to main road, and distance to markets) affect significantly the probability of being poor. Lack of access to a good road limits the possibility to participate in product and factor markets and so constrains economic opportunities and the possibility to escape from poverty. This is reflected in regional disparities in poverty which broadly match indicators of infrastructure.

2.6 ***Working in the non-farm sector is strongly associated with being non-poor, but most household heads are farmers.*** Among household characteristics, occupation appears to be the single most important variable affecting the probability of being poor. Typically someone who earns a wage in the non-farm sector has a substantially higher chance of not being poor. A self employed non-farm worker is also much more likely to be non-poor. On the other hand, being an agricultural worker (4 percent of rural households) implies a higher probability of being poor. However, these three categories represent only a small proportion of rural households. About 76 percent of household heads are farmers. Being a farmer helps many households escape from poverty but only insofar as the comparator category is households without occupation.[8] The other household characteristics that significantly affect poverty include household size, education and the level of wealth, in terms of land and livestock holdings. Households with a low dependency ratio, large land and livestock holdings and a more educated head are less likely to be poor. The importance of land is interesting given the proposed land law that seeks to increase the feasibility of larger land plots. Also a reorganization of the rural sector which leads to the more effective use of agricultural land is likely to have a significant positive effect on poverty.

2.7 ***Improving rural infrastructures, in particular transport, as well as better organization of the rural community have strong potential in reducing poverty.*** Facilitating the switch into activities that offer higher returns is crucial. At present it is typically farmers who are already relatively wealthy who can bear the risks of moving into more commercial activities. Constraints on the ability of farmers to shift away from producing primarily for own consumption into marketable activities and especially commercial crops will limit the broader impact of improvements in rural infrastructure. Access to appropriate credit, to finance the transition to commercial crops and other marketable activities, and to provide insurance against the higher risks that accompany the higher returns from such crops, is essential. Currently, the small size of holdings, lack of collateral and weak cooperatives limit the scope for financial intermediation in the rural sector.

2.8 Building on these findings, the section below looks at the potential impact of three initiatives to reduce poverty in Rwanda: (i) reducing significantly rural transport costs; (ii) greater participation

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[6] For our analysis the poverty line is conventionally defined as the per capita income of the final individual in the 4^{th} decile of the income distribution. The headcount index, P0, is the proportion of population with per capita expenditure below the poverty line. The poverty-gap, P1, estimates the average distance separating the poor from the poverty line, as a proportion of that line. Finally, the squared poverty-gap, P2, takes into account not only the distance, but also inequality among the poor.

[7] This is based on a statistical analysis (probit estimation) of the key factors amongst a range of community and household characteristics that increase the probability of being out of poverty.

[8] These results are consistent with that of Dabalen, Paternostro and Pierre (2004) on the returns to participation in the non-farm sector in Rwanda.

in market-oriented agriculture and; (iii) securing higher producer prices through adoption of quality enhancing programs. We use coffee as an illustrative example of potential impacts, reflecting the importance of coffee as a commercial crop and that quality upgrading is a key element of the new coffee strategy that has been developed and approved by the government. Nevertheless, reductions in rural transport costs will benefit all producers and consumers in rural areas and will be integral to a policy that seeks to increase the role of markets and market oriented production in rural areas. Thus, the impact of the policy initiatives to improve access to rural transport will by far exceed the more narrow simulations on poverty that we investigate here. Improving quality will increase the returns and reduce vulnerability for all activities.

IMPACT OF LOWER RURAL TRANSPORTATION COSTS ON INCOMES

2.9 ***Transport costs both in Rwanda and on the main corridor routes to the ports are very high.*** The chapter on transport costs later in this report estimates that the transport cost from the farm gate in Rwanda to the port in Mombassa is about 80 percent of the farm gate price. Rural transport costs alone, that is, transport from the farm gate to Kigali (via the washing station) is estimated at 40 percent of the farm gate price! These costs represent an implicit tax on coffee (and other exportable) producers and cutting rural and international transport costs could dramatically increase producer prices, encourage greater production and significantly raise incomes of rural farmers. Here we look specifically at the effect on coffee farmers' income[9] of cutting rural transport costs by 50 percent.

2.10 ***The importance of coffee varies across regions.*** Coffee growers (those farmers who produce some coffee, even though this may not be the principal crop that they grow) represent 10 percent of rural households, about 400,000 people. The share of income derived from coffee varies between 14.4 percent for coffee farmer households in the 4th decile and 1.79 percent for the top decile. Due to different agro-ecological conditions and infrastructure availability across regions, there is a wide disparity in households' ability to engage in coffee production and, therefore, in the contribution of coffee to total income. The share of coffee sales in total income is the greatest in Cyangugu province with 14 percent, while coffee is not a viable option in Umutara and represents a minor activity in Ruhengeri and Byumba.

2.11 ***Reducing transport costs is likely to have a significant impact on poverty amongst coffee farmers.*** A 50 percent reduction in rural transportation costs that translate into a 20 percent increase in coffee producer prices reduces the poverty incidence among coffee farmers by almost 6 percent (from

[9] We use the following methodology for calculating the impact on poverty of lower transport costs and higher producer prices for coffee. As shown by Deaton (1989, 1997) and others, the short-run effects of price changes are directly proportional to income shares. In particular, holding all the other components of the household income constant and assuming that coffee produced in Rwanda is entirely exported, the direct short-term welfare impact of price shocks on household *i* is given by equation (1):

$$\left(\frac{\Delta Y}{Y_0}\right)_i = \phi_i^{coffee} * \left(\frac{\Delta P^{coffee}}{P_0^{coffee}}\right) \qquad (1)$$

Where Y_0 is initial income of household *i*, ΔY is the change in income following a change in the price of coffee, ϕ_i^{coffee} is the share of coffee income (sales) in total household income as provided by the EICV survey and P_0^{coffee} initial average producer price of coffee. Differences in average initial prices within the sample reflect differences in quality (grade).

42 to 39.6 percent), and the poverty gap of coffee farmers by 7 percent (from 0.136 to 0.126)[10]. This corresponds to about a half percent reduction in national poverty incidence, or about 16409 people[11]. This reduction in the number of poor is not trivial given that no second-round effect is incorporated in the analysis (see below). The impact of reductions in transport costs on coffee farmers' incomes is fairly linear. So that smaller or larger changes in transport costs will have proportionate effects on incomes. Here we have assumed a 50 percent fall in rural transport costs alone. If international transport costs were also to fall by a similar magnitude the impact on coffee farmers incomes would approximately double. The transport section of this report shows that the cost per ton of transport between Mombasa and Kigali can be more than 70 percent higher than the cost of transport between Mombasa and Kampala and so there is plenty of scope for reducing transport costs on international routes.

2.12 ***Reducing rural transport costs has a positive impact on the distribution of income – the poor benefit most.*** Poor coffee farmers (those in the first four deciles) benefit proportionally more. Coffee farmers in the 4th decile, for whom coffee provides 14 percent of total income, would see a 3 percent rise in their income. In contrast, coffee farmers at the top of the income distribution would enjoy a 0.36 percent increase in income. In terms of the different provinces, the largest welfare gain accrues to Cyangugu (+2.7 percent), Kigali Ngali (+1.8 percent) and Kibuye (+1.8 percent). Coffee farmers in Umutara, Ruhengeri and Buyamba would enjoy little increase in income, reflecting the low contribution of coffee to total income.

2.13 ***The spillover effects of higher income from coffee are likely to be large.*** While the direct effect of higher farm gate prices for coffee is on the welfare of coffee farmers, other farmers and non-farmers can be expected to reap significant indirect benefits from higher coffee incomes. The two traditional channels through which spillover effects work are through the labor market and markets for food and other local non-farm goods and services. In Rwanda, only 8 percent of coffee farmers employ paid labor, implying that greater returns to coffee farming may have little employment impact in the short run. Furthermore, since farmers use sub-optimal levels of fertilizer, they may be more inclined to use some of their extra income to apply more fertilizer and boost productivity, rather than increasing employment. Finally, given Rwanda's very high labor to land ratio, the land constraint may prevent high incremental employment while at the same time, a large pool of landless people may suppress the potential increase in wage rates. In contrast, significant spending spillover effects are likely to result from the higher coffee farmers' incomes. Coffee farmers' on average spend 40 percent of their income on food products. The share of income spent on food is higher in some regions, mirroring the geographical disparities in coffee production in Rwanda. Food expenditures have the highest share in consumption in Cyangugu and Kibuye with about 54 percent and the lowest share in Umutara and Kibungo, with 38-40 percent. This points to high spending multiplier effects in provinces where coffee is an important economic activity.[12]

PRODUCING COFFEE: AN ILLUSTRATION OF THE WELFARE GAINS FROM SWITCHING FROM SUBSISTENCE TO COMMERCIAL FARMING

2.14 If reductions in rural transport costs lead to significant increases in producer prices for coffee, there will be a boost to incentives to produce coffee in Rwanda. On the one hand, existing farmers will seek to raise productivity and will be better able to purchase fertilizer and invest in new coffee trees

[10] As a starting point, note that coffee farmers are located in the middle section of the income distribution. They are neither extremely poor nor rich. The poverty gap for coffee producers is less than 0.14 against 0.16 for non-coffee farmers also clearly indicates that poverty is less deep among coffee farmers than non-coffee farmers.
[11] Calculated as: 0.0053*0.43*7,200,000.
[12] Reardon et al (2002) have found substantial spillover effects of cash crop incomes on rural Africa.

and improved techniques. One can also expect that a number of farmers will wish to switch from subsistence to coffee production. In this section, we take the analysis one step further and explore the potential gains from switching from subsistence agriculture to coffee farming in Rwanda. To do this, one cannot just compare average observed income of coffee farmers versus subsistence farmers since these two categories have different characteristics, some of which are correlated with the probability of belonging to one or another category. One has to take into account the propensity for subsistence farmers to move into coffee production. Here this is based on the characteristics of those already producing coffee.[13]

2.15 ***Access to electricity, roads and extension services strongly influence the probability of participating in coffee farming.*** Community characteristics are significant factors associated with coffee production. Access to a road is important. Households living far from the main roads are severely handicapped in engaging in commercial crop production. Access to roads helps reduce production costs and facilitate trade. Access to extension services, the technical support, training and information about markets that increase productivity and profitability, also has a significant influence on the probability of participating in coffee farming in Rwanda. This is consistent with a range of studies on African economies.[14] The provision of high-quality extension services should thus be a key element of the poverty reduction strategy.

2.16 ***Among the household characteristics that significantly influence the likelihood of engaging in coffee farming, demographic profiles are the most important.*** Households with many dependents and headed by a male are more likely to be involved in coffee farming in Rwanda. Coffee is a labor-intensive activity and in a situation where labor markets are imperfect, having a large pool of family labor appears to be an advantage. This is very interesting and important because our broad analysis of the determinants of poverty shows that a high number of dependents is positively associated with the probability of being poor. This suggests that, after controlling for community characteristics, those households currently involved in subsistence activities who have a relatively strong propensity to produce coffee are more likely to be poor. Hence, initiatives that facilitate the movement of these households into coffee production are likely to have a very strong impact on poverty.

2.17 ***Education and land and livestock holdings affect positively the probability of participating in coffee farming.*** This is not surprising. Engaging in a tradable sector presents different challenges to farmers, compared to those that arise in producing non-marketable products. These include substantial initial investments, the capacity to adjust to frequent changes in prices as well as adoption of new technologies and marketing skills, all of which are helped by education and wealth reflected in terms of land and livestock[15]. Thus, in the absence of effective financial markets in the rural area, it is only relatively wealthy farmers who have the capacity to move into coffee production. Finally, agro-ecological conditions are an important endowment for some provinces and districts (Cyangugu,

[13] We use the propensity score matching (PSM) methods pioneered by Rubin (1977), Rosembaun and Rubin (1983), and Heckman, Ichimura and Todd (1997) to build a counterfactual and estimate the average effects of participating in coffee markets on monetary household incomes. The method involves first estimating the probability of participation into coffee (using a *probit* model) as a function of market access community variables, household characteristics (demographic profile, head of household education, wealth, etc.), and a set of control variables such as provincial dummies and availability of extension services. In a second stage, one can use matching methods to pair participants (coffee farmers) and non-participants (subsistence farmers). Finally, the outcome differential, here the per capita income gain, is estimated using kernel methods.

[14] For instance, Balat et al. (2004) find that households in Zambia that have received extension services are on average more productive in market agriculture than households that have not received extension services.

[15] Access to credit did not appear significant in the regression analysis, but this may reflect lack of specificity in the questionnaire, which asked whether credit is available in the community without precision of the type of credit (micro-credit, credit for farm investment, etc.).

Butare, Gitarama) and a serious constraint for others (Umutara, Ruhengeri and Buyamba) with regard to engaging in coffee farming. Farmers in the latter provinces are the less likely to gain from a switch from subsistence to coffee farming because of natural constraints. Having examined the main determinants of the probability of being able to participate in coffee farming, we now look at the potential gain from participating in coffee farming.

2.18 ***Facilitating the shift out of subsistence into coffee production would have a substantial impact on poverty.*** We find that, on average, farmers who have a propensity to produce coffee and who shift out of subsistence agriculture into coffee production would have had an income of between 23 and 30 percent higher (depending on the particular matching method that is used).[16] If the subsistence farmers identified as having a propensity to produce coffee actually shifted into coffee production then the national poverty headcount index would fall by almost a quarter, a very substantial impact on poverty. The poverty gap would fall by around 13 per cent. These impacts will be augmented if rural transport costs were also to fall.

2.19 ***This raises the question of why farmers are not already making this shift if there is a strong incentive in terms of higher incomes.*** There must be constraints which are preventing farmers in rural areas from moving away from subsistence agriculture even though they have a propensity to produce coffee. There are a number of issues here that must be addressed and are taken up in later chapters in this report. These include the costs that are incurred in shifting into coffee, in terms of the investment in plants and so on, the lack of income whilst the new plants become harvestable, and the higher risks associated with cash crops.[17] These all necessitate the effective provision of credit to rural communities, something which is severely lacking at present. In addition, there is also the need for information on techniques for producing different crops, and so a need for widely available extension services, as well as access to transport and energy.

THE POVERTY IMPACTS OF HIGHER QUALITY

2.20 ***A key element of the government's strategy for the coffee sector is to increase the proportion of washed or quality coffee in output and exports***. As discussed in the next chapter, fully washed coffee has been commanding prices that are more than double that of standard coffee. Here we investigate the possible impacts of this strategy on poverty. It is worth noting first of all that improvements in rural transport logistics are crucial to the success of the coffee strategy since the coffee cherries must be washed within 6 hours of being harvested or the quality starts to decline. Clearly farmers that are currently more than 6 hours distant from a washing station will be unable to benefit from this strategy. Access to low cost and efficient transport will generally be important for a range of higher value-adding activities in rural areas, such as horticulture.

2.21 ***Raising the quality of commercial crops produced in rural areas has a strong poverty-reducing potential.*** A doubling of the price received by half of coffee farmers reduces the incidence of national poverty by about 5 percent. The poverty impact of the quality program is inversely proportional to the level of income. If improving the quality of the coffee produced by small farmers allows a doubling of coffee prices, the incidence of poverty falls by 6 percent, against a reduction of 2 percent if only large farms adopt the quality program. This simply reflects the fact that most of the

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[16] Balat and Porto (2005) find similar quantitative effects in Zambia, where a shift out of subsistence into cotton production leads to gains of around 20 percent of average expenditure for the representative poor farmer.

[17] Information on these costs is very limited. A recent estimate for Madagascar suggests they are considerable amounting to as much as 262 per cent of a subsistence farmers annual production – Cadot, O, L. Dutoit and M. Olarreaga (2005) 'Subsistence Farming, Adjustment Costs and Agricultural Prices: Evidence from Madagascar', mimeo, World Bank.

large farmers are not poor. Large farmers are more capable of adopting the quality program and their higher income would indirectly benefit the poor. However, to help reduce poverty more directly and dramatically, small farmers should be assisted to adopt the quality program through technical assistance and access programs.

CONCLUSIONS

2.22 ***Increasing incomes in rural areas is necessary for poverty reduction in Rwanda since almost all of the poor live in rural areas.*** Improvements in returns to exportable commercial crops are the most direct and probably the most effective way of increasing the flow of cash into rural areas and so must lie at the heart of poverty reduction in Rwanda. This is reflected in the government's coffee and tea strategies, which seek to increase returns by raising quality and therefore the market price of Rwandan produce. Our analysis shows that this strategy may have a significant impact on poverty particularly if small farmers are targeted and assisted in improving the quality of their coffee crop. However, the success of this strategy depends on a certain degree of rural logistics and transport capacity, to ensure that coffee is washed in good time before its quality starts to deteriorate. This capacity is currently lacking. Of course, only those farmers who can produce higher quality coffee will directly benefit from this strategy.

2.23 ***Reducing trade costs can have a profound impact on poverty***. The benefits of lower transport costs, if reflected in higher producer prices, will be realized by all coffee farmers, and indeed all commercial farmers. Reducing transport costs and providing access to transport to those who are currently remote is a crucial element in the poverty reduction strategy. We also show the possible impact if higher returns to cash crops encourage larger numbers of farmers to shift from subsistence activities into the production of coffee. The impact on incomes could be very substantial indeed. A particularly interesting finding is that a key characteristic linked to probability of being poor in the overall sample, a large dependency ratio, is in fact associated with a strong propensity to produce coffee. This suggests that measures that facilitate switching into coffee will have an especially strong impact on the incomes of the poorest families in rural areas. This is an issue that probably warrants further attention. Whilst increasing returns to commercial crops, which stimulates more farmers to shift out of subsistence activities, will have significant effects on poverty, there are substantial barriers to this process. Other chapters in this study highlight that unless training and knowledge are raised through extension services, unless access to credit and to transport are improved then the shift into commercial crop production will be severely curtailed.

2.24 ***Monitoring of the impact of improvements in transport and higher quality will be crucial in ensuring that poverty impacts are maximized.*** The analysis in this chapter highlights the poverty reducing potential for lower transport costs and higher quality of agricultural exports. However, it will be important to measure and monitor the extent to which these improvements are actually passed onto to farmers in terms of higher farm gate prices and higher incomes. Clearly, if some of the benefits of lower transport costs and higher prices due to better quality are acquired by other actors in the chain then the poverty reducing impact on rural farmers will be reduced. Hence, it will be important to regularly assess the extent to which farm gate prices are rising and whether lower costs in reaching markets are being passed on to farmers.

2.25 ***Actual impacts will tend to be larger than suggested in this analysis.*** In all the cases examined here we have found significant impacts on poverty whilst only considering the most direct reactions to changing prices. However, the effects will be considerably larger, since coffee farmers typically have a high propensity to spend on other products produced in the rural communities. Increasing returns to commercial farmers could have substantial multiplier effects within rural communities. The challenge is to provide an infrastructure and framework by which rural markets can develop and flourish.

Chapter 3: Supporting the Traditional Sectors of Coffee, Tea and Tourism: Key to Exports, Growth and Poverty Reduction

3.1 ***If Rwanda is to achieve the goals of Vision 2020 in terms of economic growth and poverty reduction, then coffee, tea, and tourism will have to play a dominant role.*** These three sectors have historically been the three pillars of Rwanda's exports. In 2004, coffee and tea comprised 58% of total goods exports, and tourism receipts were equal to 25% of goods exports. The performance of Rwandan exports and the economy as a whole are therefore currently highly dependent on these three sectors. Nevertheless, the preponderance of these sectors in the economy brings associated risks in terms of vulnerability to changes and fluctuations in prices for the key crops and in the sensitivity of tourists to regional conditions. In addition, whilst these sectors must be the main conduit for increasing rural incomes in the short-run, their ability to absorb large numbers of workers as rural productivity rises and population continues to grow will be limited. Hence, it is crucial that in the medium-term new firms in new sectors emerge to provide a more diversified and broader base by which to generate increasing employment opportunities.

THE COFFEE SECTOR

Introduction

3.2 Coffee is a key export crop in Rwanda. In 2003, after a thorough assessment of the worldwide coffee industry and Rwanda's competitive position in the industry, a coffee working group developed an aggressive strategy to both increase total exports of coffee and to move the coffee industry up into the high quality, specialty segment of the market. After two years, there are strong indications that the strategy is well on track: the number of washing stations has increased; fully-washed Rwandan coffee has found market acceptance and sells for well over two times the price of its ordinary coffee exports; and the income of farmers who have subscribed to the program and have access to a washing station has risen substantially. However, several impediments may delay the achievement of the goals of this strategy and/or reduce the magnitude of its success.

3.3 ***Coffee production and exports are very important to the economy and to poverty alleviation.*** A substantial number of farmers are engaged in coffee production. In 2002, 437,196 farmers cultivated coffee, although this was significantly less than in 1991. In a survey conducted in 2002, 34% of grower-households listed coffee as their number one cash crop (15% listed the beer banana as their most important cash crop). Through 2003 Rwanda exported between 15 thousand and twenty thousand tons of coffee per year. In 2004, in part due to favorable weather conditions, coffee production and exports suddenly doubled to almost 30 thousand tons, close to the levels of exports in the early 1990s.

3.4 ***Coffee production is very sensitive to changing prices, hence significant increases in returns will induce a substantial increase in supply.*** Most coffee growers cultivate more than one crop. If coffee prices decline, growers first stop maintaining their trees, then they abandon them and do not harvest the coffee "cherries", and finally, if low prices persist, they uproot them and plant alternative crops. When prices rise, production and exports tend to respond strongly suggesting that Rwandan farmers react to economic incentives and disincentives in their decisions to plant, maintain, and harvest coffee. If Rwanda can follow a strategy that raises the profitability of farming coffee, coffee production and exports should respond strongly.

3.5 ***Until recently farmers were paid a single price regardless of quality and Rwandan coffee competed at the bottom of the market.*** The farm gate price for coffee in Rwanda is set in relationship to the price at auction of coffee in Mombassa after deducting production and transportation costs to the port. In the late 1990s, world coffee prices fell due to increasing output of low-cost, high-volume, low-quality producers in countries such as Brazil and Vietnam at a time of stagnant world demand. Coffee producers in Rwanda responded by reducing production and maintenance and also by reducing the quality of the coffee cherries they delivered to the traders for further processing and export. As production declined, there was increased rivalry among traders for insufficient quantity and quality control further suffered. Moreover, farmers were not paid based on the quality of their product, rather one price was paid to all farmers regardless of quality. As a consequence, Rwandan coffee competed as a pure commodity in a world market that was experiencing falling prices.

3.6 ***A coffee strategy has been developed based around improving quality and returns to farmers.*** In response to this dire situation a coffee strategy was developed based on the expectation that growth in global demand for coffee will be modest relative to growth in overall supply leading to continued low prices, but that there are opportunities to exploit a small segment of the market for high-quality Arabica coffee (7% of the overall market). This segment is projected to grow at 15% annually and have prices of more than double those of ordinary Rwandan Arabica coffee.

3.7 ***Rwanda has the natural conditions – high altitude, ideal rainfall, good soil quality and composition – to grow high quality Arabica coffee***. Coffee producers in many other countries have also identified these trends and are also trying to upgrade their products to access this market segment. In response to this competitive threat to achieving the goals of the National Coffee Strategy, Rwandan producers will have to leverage the country's natural advantages in coffee production to produce consistently high-quality coffee. In addition, Rwandan producers will have to improve the country's image as a coffee producer. In a survey, importers/roasters who knew of Rwandan coffee, did not perceive it as a quality coffee.

3.8 The National Coffee Strategy recognizes that ***strong efforts will have to be made to achieve a reputation for Rwanda as a quality producer*** through international exhibitions, demonstrations, and contests, and strict quality control. In the high quality market segment, coffee is typically sold on the basis of personal relationships between the buyer and the seller. Hence, specific buyers can be targeted in efforts to raise Rwanda's reputation for quality.[18] Rwandan producers have already demonstrated they can convert this potential into reality. Fully-washed coffee from the Maraba pilot washing station achieved high scores at international coffee tasting competitions placing it well above the threshold level for a specialty coffee.

3.9 Given this background, the coffee working group has set ambitious goals: coffee output to increase from around 18 thousand tons in 2001 to over 44 thousand tons in 2010. To achieve this goal, the yield per tree will have to more than double from .35kg/tree to .74kg/tree, which although ambitious, is feasible given regional yield standards of 0.77 to 1.15 kg/tree. At the same time, production of high-quality, fully-washed coffee is projected to increase from almost nothing in 2001 to 28 thousand tons (63% of coffee exports) in 2010. To achieve this goal, the number of washing stations will need to increase from six in 2002 to 107 by 2010.[19]

3.10 ***The initial impact of the new strategy appears to be positive.*** The Government of Rwanda has officially approved the coffee strategy and significant funding has also been allocated to the coffee sector by the government, donors, and the private sector. Despite volatile production in the two years

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[18] Two long-term, USAID-funded projects, ADAR and PEARL, have been assisting producers in developing buyer-seller relationships and assisting growers in upgrading the quality of their products.

[19] The working group estimated that to achieve these ambitious goals would require an investment of $69 million, $24.75 million from donors/NGOs, $23 million from the private sector, and $21.25 from the Rwandan government. (See the "Rwanda Coffee Strategy and Action Goals for a detailed breakdown of these investments/expenditures.)

since the strategy was inaugurated[20] it is possible to identify certain long-term developments that auger well for the future of the coffee sector in Rwanda. On export markets, fully-washed coffee has been earning \$2.44 to \$3.97/kg compared to \$1.16 to \$1.28/kg for washed coffee. In response to this dramatic price differential, private investors have been entering the industry both as large-scale producers and investors in washing stations. Export traders are integrating backward into investment in washing stations. The number of washing stations has increased. By end 2004 there were 19 washing stations in place. Since it takes about three years for a washing station to reach its capacity and quality goals, there is every reason to expect that the amount of fully-washed coffee will increase in line with the coffee strategy's goals.

3.11 ***Providing washing stations to wash and grade the coffee "cherries" can have a significant impact on farmer income and on poverty reduction***. Data collected by the ADAR project shows that access to a washing station has led to increases in farmer income by as much as 55 percent. This income will be increased further if farmers are able to increase yields and increase quality in line with the coffee strategy. It also suggests that as the number of washing stations increases, more and more farmers will be able to reap the rewards of producing high-quality coffee. Further, given the high responsiveness of farmers to enhanced economic incentives, these higher prices will induce increased supply in line with the coffee strategy. Washing and grading the coffee cherries seems to have had two key effects. Previously, when coffee beans from cherries of mixed quality were sold, their quality was considered to be that of the lowest quality since they were eventually all processed into undifferentiated instant coffee. By carefully grading the coffee cherries during the washing process, they can be separated by quality and those of higher quality can earn higher prices. Secondly, since the farmers are rewarded for producing higher quality cherries, they increase their quality to obtain the higher prices. At the PEARL project, the washing stations track the output from individual farmer such that if a particular batch of beans is sold at an exceptional price, a part of this revenue flows back to the individual farmer. Conversely, at the washing stations at which Pearl operates, if the cherries are not of the requisite quality they are rejected.

3.12 ***Unclear regulations regarding cooperatives hamper the more effective organization of coffee farmers.*** As a result of the efforts of both the ADAR and the PEARL projects, the quality and the image of Rwandan coffee have improved markedly.[21] The PEARL project has also helped farmers to form cooperatives that meet the requirements of being classified as "fair trade" coffee.[22] This classification allows the coffee to earn a substantial premium over regular coffee exports. In some instances, the PEARL project has experienced considerable delays when it has tried to assist groups of farmers in forming a cooperative due to unclear government regulations concerning the requirements for forming a cooperative and administrative discretion.

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[20] Production was forecast to be about 20 thousand tons in 2002, 25 thousand 2003, and 28 thousand in 2004. The goal for 2002 was almost achieved. In 2003, however, production and exports fell to below 14 thousand tons, far short of the goal of the strategy for that year. In 2004, however, coffee exports totaled almost 30 thousand tons, above their target for the year. A number of factors may have contributed to these fluctuations: the regular pruning cycle for coffee trees that reduces production one year, but increases it the next; good weather conditions in 2004 compared to 2003; a somewhat higher farm gate price in 2003 than in 2002 that gave farmers the incentive to maintain and fertilize their trees so that production in 2004 was enhanced; and a further increase in farm gate prices in 2004 that gave an additional incentive to harvest the coffee, and finally smuggling from neighboring countries.

[21] In late 2004, Starbucks selected the output of one producer to be its "black apron" promotion of the month. Rwandan coffee has also been promoted in France by a distinguished French importer/roaster and retailer.

[22] One of the criteria that must be met in order to qualify as "fair trade" coffee is that the coffee must be produced by a cooperative. The PEARL project is also experimenting with organically produced coffees and shade-grown coffees that will further differentiate the output from these cooperatives and allow farmers to earn higher prices for their coffee.

3.13 ***Despite real progress problems remain that may reduce the effectiveness of the washed coffee strategy and reduce its benefits to Rwandan farmers.***

The key issues are:

A. ***Lack of access to finance***. Coffee production and hence farmers' incomes is seasonal, which necessitates borrowing over the production cycle. If coffee farmers are to uproot old, low-productivity trees that bear lower-quality cherries in order to replant, they need finance since it takes several years before the new trees begin to bear sufficiently to begin to repay the investment. However, although there has been substantial improvement in their access to finance through various schemes, as yet few farmers have effective access to credit as discussed in more detail in the chapter on finance. For example, the government has put in place a guarantee facility for washing stations at the central bank that is considered successful.[23] USAID has provided support and funding to ACDI/VOCA to work with financial institutions, such as BRD to streamline rural finance among producers' organizations in some strategic commodity chains such as coffee and tea.

B. ***The availability and cost of both internal and external transportation is crucial for the development of the coffee sector***. The cost of transporting the cherries from the farm gate to Kigali (via the washing station for fully-washed coffee) is approximately equal to the cost of transportation from Kigali to the port; and the total cost of transportation from the farm gate to the port is 80% of the amount received by the coffee farmer. Major improvements are required in all aspects of the transportation infrastructure. At present, in order to be competitive on world markets for coffee, Rwanda's low labor costs offset the high transportation costs. Hence, improvements in transportation infrastructure and lower transport costs will enhance the impact of the coffee strategy on poverty by delivering a higher proportion of the revenues to the producers. With the new coffee strategy, there is another important cost of the poor transportation infrastructure. Three hours after the coffee cherries have been picked, chemical reactions begin to take place that reduce the quality of the fully-washed bean. After six hours, this spoilage can become substantial. During the harvest season, washing stations operate 24 hours every day. Each washing station receives cherries from hundreds, even thousands of coffee farmers. There must be tight coordination and scheduling between producers and their washing station to ensure that the quality of the cherries is not reduced by prolonged waiting. A poor road infrastructure increases the difficulty of coordinating and scheduling among the farmers and the washing station and inevitably results in some lowering of the quality of the station's inputs and its average output quality. Of course, farmers with a capacity to produce high quality coffee but who are too distant from a washing station will be unable to benefit.

C. ***Rwandan farmers will require extensive training***. The fully-washed coffee strategy envisions exports of 28,000 tons of high-quality, fully-washed coffee by 2010, more than double total exports (of low-quality, commodity coffee) in 2003. At present, for many coffee farmers coffee is not their only crop and many of the coffee trees are old and not well maintained. To meet the objectives of the coffee strategy will require increased productivity (output per tree) and increased quality. Rwandan farmers will need extensive training in all aspects of coffee production from planting through care and maintenance (mulching, pruning, fertilizing), to harvesting and transportation in order to increase productivity and quality. On the order of half a million farmers will need this training! ***Yet in the face of this massive need for training, the number of agronomists working in the rural areas has been drastically reduced.*** Civil service reform has reduced the number of agronomists from the Ministry of Agriculture who are available in the field for training leaving only agronomists from OCIR Café to undertake this vital function. They simply are, however, insufficient in number given the magnitude of the need for their services.[24]

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[23] To date all proposals made to the Central Bank by the commercial banks on behalf of their customers have been approved and all stations have paid back their loans, so no recovery procedure has been needed.

[24] Coffee cooperatives can spread the cost of hiring an agronomist among many producers.

D. ***The role of OCIR Café needs to be clarified.*** OCIR Café was set up as a state owned enterprise to manage the coffee sector. It set prices, controlled exports, and provided inputs at subsidized prices. In an effort to make the coffee sector more efficient private ownership and competitive markets have been introduced. In this more liberalized environment, OCIR Café has been struggling to define its role and mission and to devise a strategy to contribute to the development of the coffee sector. At present, there is significant dissatisfaction with OCIR Café's performance among many of the stakeholders in the coffee sector. There are three key areas where OCIR Café needs to enhance its activities. First, there is an important role for OCIR Café in *providing information and coordinating investments* in the sector.[25] Second, there is a role for OCIR Café to provide for *quality control and image building*. To achieve the goals of the Fully Washed Coffee Strategy, Rwanda must build a reputation as a reliable producer of high quality coffee. Quality control will have to be effectively administered. Third, OCIR Café could take responsibility for the significant increase in *extension and training services* that are required.

E. ***Cooperatives need to be strengthened.*** Cooperatives need additional training in financial management and governance. Exporting high quality, specialty coffees requires skills in relationship marketing. Under the PEARL and ADAR projects much of this relationship marketing has been undertaken by foreign consultants. For the highly positive results of these projects to be sustained and augmented in the future (after these projects have finished) will require persons with similar expertise and mind sets. It is highly unlikely that any persons among the members of the coffee cooperatives or even among private investors in the coffee sector have these attributes. One possibility would be for OCIR Café to undertake this role. Experience has shown, however, that typically government personnel are not well qualified either by expertise or by personality to be strong, proactive export marketers. In addition, government salaries are low and provide little inducement for persons with the attributes needed for successful relationship marketing to join the government service. An alternative would be to develop a strong national association of producers or a national association of growers, producers, and traders. Given the importance of coffee in Rwanda's exports and the importance of the marketing function, one of the primary tasks of the staff of this association would be relationship marketing. The association would be in a position to pay such an individual according to skills, value created, and the market for this talent.

F. Buffering producers against swings in world prices. In addition to generally low and falling prices at the bottom end of the coffee market, coffee prices have historically been subject to wide swings over time. The objective of the coffee strategy is to take the Rwandan coffee industry into the top end of the market where prices are not only higher, but swings in prices are less pronounced. Several other countries are also following this strategy, however, and in the future the price premiums described above may erode and price swings may increase. If these events were to occur, the incentive to produce high quality coffee might fall, especially during a cyclical downturn in prices. However, there are a number of mechanisms that are available to mitigate the impact of price swings, the use of which should be supported and encouraged by the government. Under the ACP-EC Partnership Agreement, funds are available under the FLEX instrument (which replaced the STABEX scheme) when there is (for least-developed or land-locked countries) a 2 percent loss of export earnings from goods compared with the average over the first 3 years of the previous 4 year period. In addition, there

[25] For example, a GIS mapping which provides information on coffee production at the province, district, and sector levels (the smallest administrative unit) was undertaken to assist in the efficient location of washing stations. Yet potential investors are unaware of this GIS project and the results have not been used by OCIR Café to draw up a ranking of target sites for washing stations. As a result some districts already have too many washing stations relative to production which could lead to excessive competition among the washing stations and to quality control problems. Conversely, potential investors in washing stations have had to expend significant time and resources to find a suitable location – and some washing stations have been located in inappropriate places, i.e., those with insufficient water, with the water supply far lower than the washing station, with inadequate electricity supplies, or not connected with a suitable transportation network to potential suppliers.

are a range of commercially available commodity price risk management tools. The ITF (International Task Force on Commodity Risk Management) seeks to provide smallholder farms in developing countries with access to such insurance. The challenge is to effectively link local farmers to these available schemes in a way that increases confidence and certainty and so supports investment and production decisions. OCIR Café should take responsibility for increasing the role and effectiveness of risk management schemes in rural Rwanda.

CONCLUSIONS AND RECOMMENDATIONS

3.14 The coffee strategy offers the prospect of substantial increases in output, exports[26] and incomes for farmers. If successfully implemented this would have a major impact on poverty reduction. If the planned one hundred washing stations are in place by 2010, competition among washing stations for high-quality coffee cherries should ensure that the farmers receive a substantial portion of the additional value added to coffee that will be created under this strategy. Already, farmers with access to a washing station are receiving increased revenue per kilo of cherries based on quality of the cherries they deliver. However, there are a number of constraints to this strategy. The following are recommendations to address and alleviate these barriers.

1. Improve access to finance In designing and implementing the various loan and credit programs (and programs to assist those trying to access these programs) emphasis should be given to the needs of coffee producers and investors in washing stations.
2. Increase access to low-cost transport. Decisions on the upgrading of the transportation infrastructure should take account of the needs of coffee farmers for transportation from farm gate to washing station and the needs of the operators of washing stations for transportation to Kigali. The government should ensure that investors in washing stations are informed of its plans for road development, so that transportation costs over time can be factored into locations decisions.
3. Increase the number of agronomists the government needs to increase the number of agronomists in the field who can provide advice and training to coffee producers.
4. Enhance the role of OCIR Café. OCIR Café needs assistance in undertaking a major strategic analysis of its mission and its role in Rwanda's evolving coffee sector with reference to Rwanda's Fully Washed Coffee Strategy. This strategic analysis should include goals, procedures for achieving those goals, and staffing needs to achieve these goals. As well, the role of producers in OCIR Café needs to be increased.
5. Developing associations and cooperatives. Technical assistance should be given to strengthen coffee farmer cooperatives and to form an overall industry association. Depending on the outcome of OCIR Café's strategic review, this industry association might also undertake a role in quality control, information gathering and dissemination, image building and promotion, and, most importantly, in relationship marketing.

THE TEA SECTOR

Introduction

3.15 ***The tea sector is a key sector for exports and poverty reduction but is characterized by low productivity and low quality.*** Whilst the tea sector rebounded strongly in the late 1990s, recent years have seen relative stagnation in output and a decline in quality. Productivity levels remain low compared with other countries in the region. Rwandan tea is sold as a commodity at auction. With the

[26] If the goals of the fully-washed coffee strategy are achieved, using 2004 prices for fully-washed and ordinary coffee, export earnings will increase from about $14 million in 2003 to about $117 million in 2010 due to the higher price of fully-washed coffee compared to ordinary coffee exports ($2.75 vs. $1.17), the increase in the percentage of fully-washed coffee in total coffee exports, and the increased volume of total coffee exports.

world price of tea forecast to decline, except for the price of specialty and high quality teas, low quality and poor productivity will severely hamper the role of the tea sector in increasing exports and reducing poverty and achieving the goals of Vision 2020 (the characteristics of the tea sector in Rwanda are summarized in Box 1).

3.16 ***A new strategy has been developed based on raising productivity and the proportion of good leaf tea.*** In this context, in 2003 a working group developed a new tea strategy, similar in many ways to the coffee strategy. The Tea Strategy envisions production increasing from 15 thousand tons in 2003 to almost 36 thousand tons in 2010 through a combination of increased productivity and additional land placed under cultivation. In addition, by 2010, some 25% of tea production is to be in specialty varieties (green tea, orthodox tea, and flavored teas) and there is to be 80% good leaf tea (GLT), both of which will lead to higher prices for farmers.

Box 3.1. The Tea Sector in Rwanda

In 2003, Rwanda produced over 15,500 tons of tea on 11,500 hectares of land. Nine state-owned tea factories managed the production and processing. These factories employed about 30,000 workers. Sorwathe, the sole privately-owned producer, accounted for 9% of Rwanda's tea plantation area and 20% of total production.

About 44% of the tea estates, known as Tea Villages (TVs) are owned by individuals or groups. Another 32% are organized into eight state-owned industrial enterprises. The remainder are organized in cooperatives. Usually the tea factories acquire a part of their tea leaves from plantations directly under their control and purchase the rest of their needs from nearby plantations run by cooperatives and/or TVs. The tea sector is managed by OCIR Thé. Rwandan tea is sold either at auction in Mombasa or directly to private customers. OCIR Thé uses the selling price in Mombasa as a reference for setting prices to private clients. OCIR Thé sets the minimum price paid to farmers. Up to 2002, this price did not depend on the quality of the tea delivered to the factory for processing.

Rwanda's tea plantations fall generally into two categories: "mountain tea," tea grown on volcanic hills, and "swamp tea," tea grown at lower elevations. Swamp tea plantations have a higher yield than mountain tea, but mountain tea is generally of higher quality. Rwandan yields, however, have been considerably below those in other countries. Mountain tea, for example, can potentially deliver yields of 2,000 kg/ha. The yields of the nine mountain tea factories in Rwanda range from 1,273 down to 415 kg/ha. Swamp tea producers in other countries often have yields of up to 3,500 kg/ha. In 2003, Rwanda's three swamp tea producers had yields ranging from 2,978 (Sorwathe) down to 1,492 kg/ha. In general, yields in Rwanda for both swamp and mountain teas have been lower than those of Kenya, India, and Sri Lanka by at least 26%.

THE TEA STRATEGY

3.17 ***There is significant scope for improved performance and higher returns in the tea sector.*** The tea working group found that Rwanda was producing tea for the bulk commodity, low-price end of the market. As with coffee, Rwandan tea producers had not developed either a differentiated or a value added tea product. They were relying on the "known" CTC (crushed, torn, curled) quality of their product to sell it at auction. Yet this quality had been declining steadily over the years. Rwandan tea sold at a discount to Kenyan tea at auction, although it sold at a premium to tea produced in Tanzania and Uganda. Further, Rwanda differed from many other tea producing countries by an almost total focus on the production side of tea. In other tea-producing countries - particularly in Sri Lanka and India - local factories blended and processed their teas and even occasionally packaged them for specialty retailers. In Rwanda about 97% of tea was exported in raw, bulk form to be auctioned in Mombassa. Sri Lanka by contrast sold 35% of its tea in value-added form. With oversupply predicted for the bulk tea market, declining prices will hit Rwanda particularly hard if this situation continues.

3.18 ***Rwandan tea farmers were receiving low prices relative to Kenyan farmers.*** The tea working group found that while the costs of production in Rwanda were relatively low by world standards ($0.91/kg for the state-owned factories, $1.22/kg for Sorwathe), the value captured by the domestic industry was low as well. On average, a Rwandan tea factory would retain $0.70 on revenue of $1.10 per kilogram of black tea. A tea blender or packer earned $3.00 on revenue of $5.30, while a tea retailer would earn $10.00 for $16.80 in revenue. In 2003, while Rwanda was producing just as much tea as many of its nearby competitors, it was not generating as much revenue from its crop. In Rwanda low production costs, especially low labor costs, were offset by high transportation costs. The low retained revenue was reflected in the prices paid to the Rwandan tea farmers: Kenya paid its growers the equivalent of 100 (RF)/kg with additional premiums for quality, Rwandan growers received a green leaf rate of 45 (RF) /kg regardless of quality.

3.19 ***There are opportunities for countries to exploit the increasing demand for higher quality and specialty teas.*** Tea consumers are becoming more sophisticated regarding the origin, taste, and packaging of the tea they buy and are demanding higher quality teas in increasing amounts. Increasingly retailers are buying directly from estates to control quality and variety rather than from the bulk tea market. There is also a significant fair trade movement that pays a premium for teas certified to be produced and sold under fair trade conditions. Rwanda has the right climate, altitude, and soil conditions to produce high quality, value-added tea efficiently. Sorwathe the privately owned producer, for example, sells part of its output directly to customers in the United Kingdom and Ireland, bypassing the Mombassa auction entirely. Yields per hectare at Sorwathe are also at international levels and the quality of its output is high.

3.20 ***The tea working group concluded that performance in the sector could be substantially improved under an aggressive strategy to expand land under cultivation, to increase yields, and to improve product quality, variety, and value added***. A new tea strategy was devised which set ambitious targets for total tea production to increase from about 16 thousand tons in 2003 to almost 35 thousand tons in 2010, the percentage of bulk tea in exports to decline from 99.4% in 2003 to 77% in 2010, productivity to increase by 70 per cent by 2010 and land under cultivation was to increase by about 30%.[27]

3.21 ***Two key factors need to be put in place rapidly if the goals of this strategy are to be achieved: a pricing system for tea farmers based on the quality of the tea delivered to the processing factory and a rapid privatization of the industry.*** We now look at the progress that has been made in achieving these objectives.

Pricing

3.22 The new tea strategy recommended two phases in the introduction of the new approach to pricing. In a first phase the change in the pricing structure would be:

Base price for green leaf tea remains at:	45 RF/kg (if GLP[28] is below 70%)
GLP 71% - 74%	7 RF/kg additional premium
GLP > 75%	3 RF/kg additional premium

In the second phase the strategy recommended that growers would receive a price based on the actual price the tea of the estate received at auction. This pricing system is similar to the one used for smallholders in Kenya based on quality and productivity.

[27] The new tea strategy was projected to require an investment of $109 million through 2010, $41.8 million from government (including donor and NGO funding) and $66.8 from the private sector.
[28] Good leaf percentage.

3.23 ***The pricing strategy for tea needs to be changed so that farmers are better rewarded for supplying higher quality tea.*** Instead of following the recommendation of the tea strategy, the government Tea Board raised the price of tea by 10 RF/kg to 55 RF/kg and set a premium of only 2 RF/kg for tea with GLP over 70%. The impact of this new pricing structure is to be assessed after it has been in operation for six months, in early 2005. Of interest, in 2001/2002 Rwandan tea was auctioned at an average of a 17% discount below the price at auction of Kenyan tea. In 2004, on average, its auction price was at a small premium, with the premium increasing at auctions as the year progressed to a 17% premium at the latest auctions. Further study is needed to determine the impact of the quality price differential and to determine if additional changes would be useful in the pricing structure of tea at the farmer level. This pricing issue is highly contentious. On the one hand, the tea companies with factories that rely on outside supplies point out the relatively high costs in Rwanda for fuel, machinery, and transportation that must be deducted from the tea revenues before payment is made to tea farmers. On the other hand, tea farmers highlight the substantially higher incomes of their counterparts in Kenya and demand comparable compensation.

Privatization

3.24 ***Although the government's privatization process has been successful in other sectors of the economy, it is not well advanced in the tea sector.*** Only one of the government tea operations has been privatized, despite extensive effort on the part of the Privatization Secretariat. The tea strategy envisions substantially increased output. This will require not only additional investment to achieve higher yields and/or more land under cultivation but also substantial investment in additional processing capacity. Yet neither the government nor the government-owned tea facilities has the capital for this undertaking. As well, the managers and workers in the state-owned enterprises (SOEs) and many of the producers in the TVs do not have the technical expertise to raise quality and to expand the productivity of their tea operations. Only private owners have both the funds and the expertise and the profit incentives to achieve these goals.[29] This raises the issue of whether the bidders should be required to commit in their business plans to additional investment. The alternative would be to evaluate bids on the basis of the amount of the bid (once the *bona fides* of the bidder had been verified). Under this procedure, there is an implicit assumption that the bidder who offered the highest price would follow the strategy that would maximize the value of the unit under consideration and hence maximize its value to the country. In other words, this procedure would rely on the market for equity ownership to operate efficiently to yield the highest returns to the nation.[30] The government, via the Privatization Secretariat, has already made the decision to go beyond reliance on the market for equity by requiring that bidders undertake to fulfill specified performance requirements relative to their investment if they should win the bidding.

3.25 ***The most important and contentious issue regards the equity ownership share of the tea farmers in the privatized enterprise.*** Given that tea farmers contributed to the development of the units with which they are associated, it has been argued that they should participate in its ownership and, either individually or through a cooperative, and were seen as owning up to 45% of the enterprises to be privatized, depending upon the structure of the particular unit. The remainder of the equity was seen as belonging to the government and could be sold. This minority equity requirement for the tea farmers has had important implications for the privatization process, the price that strategic investors have been willing to pay, and the interest of strategic investors in purchasing a privatized enterprise. Most obviously, if the strategic investor is bidding on only 55% of the equity of the enterprise, the bid price will be at most 55% of the price that the investor would be willing to pay for

[29] For example, in October 2004, a consultant estimated that investments of on the order of half a million dollars each would have to be made in Gisovu and Kibati to convert them to orthodox and other types of specialty teas.
[30] This also assumes that the investors risk premium, and hence its discount rate for new investments, is the same as that of the country as a whole, an unlikely assumption.

100% of the equity. Second, strategic investors may be deterred if their suppliers, the tea cooperatives and TVs, also have a substantial equity stake in the enterprise. Further, representatives of the tea farmers are on the Tea Board, the board that sets the prices at which the tea farmers sell their tea to the factories. Third, since the tea processing factories are currently operating near capacity, if the privatized enterprises are to substantially raise output they must invest heavily in plant and equipment. Neither the tea cooperatives, the individual tea farmers in the TVs, or the government have the funds to contribute according to their equity share in the privatized enterprise to undertake these investments.[31]

3.26 ***Successful privatization is essential if the objectives of the tea strategy are to be met.*** The SOEs have neither the capital nor the expertise to raise quality and productivity, and develop marketing expertise. Hence, the success of the tea strategy is linked to the success of the privatization program. The longer the privatization process is delayed, the longer it will take to achieve the goals of the new tea strategy.

CONCLUSIONS AND RECOMMENDATIONS

3.27 The tea sector is an important component of Rwanda's economy. If it is to contribute to achieving the goals of Vision 2020, the tea sector must be developed in accordance with the goals of the new tea strategy: productivity, land under cultivation, and quality must all be increased. To achieve these goals will require substantial additional capital and expertise. Rapid and effective privatization is crucial for the development of the tea sector. Private strategic investors have the expertise and the capital to develop the industry; the government and the tea farmers do not. Poverty alleviation will come through increased yields for tea farmers, expanded land under cultivation, and increased tea quality and hence prices paid to farmers. As with coffee, improvements that lead to lower transport costs will tend to be reflected in higher prices paid to farmers.

3.28 ***For the goals of the tea strategy to be realized, two crucial changes are necessary: the pricing of tea needs to be changed so that tea farmers are rewarded if they increase the quality of the tea they deliver to the factory, and the companies that process the tea be privatized as soon as possible***. There have been severe impediments to following these two recommendations. As a consequence, in 2004 tea production and export was significantly below their projected levels in the new tea strategy. Tea quality may have improved somewhat as reflected in the premium compared to Kenyan tea at the Mombassa auction. This leads to the following recommendations:

1. The government needs to address the issue of privatization of the enterprises in the tea sector with urgency. Technical assistance is required, not only from an expert on privatization in general, but also from experts on the tea sector worldwide.

2. The pricing structure for tea needs to be reviewed and, if necessary, changed to one that is more effective in inducing the tea farmers to provide higher quality tea leaves to the processors. Technical assistance in the form of expertise in the pricing policies in other countries and also in training the tea farmers in how to provide higher quality leaves needs to be undertaken.

3. ***Technical assistance will be needed to help OCIR Thé develop a strategy, structure and personnel policies through which it can contribute most effectively to the development of the tea sector*** as it evolves in the future. Key issues for the future are how to remedy the lack of training and efficient extension services and how to enhance value-added through packaging, branding and direct selling and the development of fair trade products.

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[31] In theory, the cooperatives could obtain land titles/deeds and use them as security to borrow the funds from banks. However, as noted elsewhere in this report there are substantial problems in accessing and providing long-term rural credit.

THE TOURISM SECTOR

Introduction

3.29 ***Expansion of the tourism sector would have a significant impact on exports of services***. Receipts from tourism account for around one quarter of the value of goods exports. Yet tourist arrivals remain a fraction of their peak number in the mid-1980s. Hence, if tourism can return even to its levels during the 1980s, the impact on the economy and on exports would be enormous. A tourism working group has developed a strategy for the sector. The government did not designate tourism as a strategic sector in its development plan, Vision 2020 and tourism is only briefly mentioned in the PRSP. *Tourism must be given a higher profile in the next PRSP.*

3.30 ***The Tourism Strategy is dependent upon a significant increase in human capacity and an improvement in the business climate to encourage the necessary private sector investment.*** The Tourism Strategy calls for Rwanda to follow a model of competitive advantage (via developed human resources, learning institutions, and unique insights) rather than one of comparative advantage (based on existing physical assets and unskilled human resources). This strategy is in marked contrast to that followed previously: tourism largely based on "Gorillas in the Mist." It envisions tourist arrivals to increase from 15 thousand in 2003 to 70 thousand in 2010, the number of days per visit to increase from four to seven and the amount spent per day is to increase to $200. In all, if the goals of this strategy are achieved, tourism would contribute $100 million per year to the exports of goods and services by 2010, a more than four fold increase.

3.31 The tourism strategy identifies key constraints to achieving these goals

- The image of Rwanda has to be improved
- Physical capacity to service tourism must be expanded. For example, there is limited accommodation at key tourism sites, limited direct flights to major markets, and a small range of tourism experiences.
- Human capacity in the sector must be dramatically augmented.
- The investment climate must improve to encourage private sector led development of the sector.

3.32 To meet these challenges, ORTPN has been restructured into two separate agencies: the Rwanda Tourism Agency and the Rwanda Wildlife Agency. ORTPN has developed a medium term Strategic Plan 2004-2008 that maps out specific goals and the financial and human resources it will need to meet those goals. The Rwanda Tourism Agency has engaged in trade fairs (in Berlin, London and New York), and assiduously cultivated journalists to write favorably about the tourist opportunities in Rwanda. It is also relaunching its website.

3.33 Physical capacity to support tourism has been augmented by the construction of the five-star Intercontinental Hotel in Kigali and the four-star Kivu Intercontinental. Additional attractions have been developed in Kigali (the genocide museum), Butare (cultural center, museum, and eventually the circuit of "500 years of Rwandan Civilization"), Nyungwe (viewing wildlife), Lake Kivu (relaxation and water activities), Volcano National Park (gorillas), and Akagera National Park (savanna wildlife).

3.34 Tourist arrivals in 2004 reached 26 thousand, above the level that the strategic plan had envisioned for 2005. Despite this progress, formidable obstacles confront the tourism sector in its efforts to achieve the long-term goals of the tourism strategy. Successful implementation of the tourism strategy will require more effective inter-ministry cooperation. For example, the planned tourist circuit routes have implications for the development of roads, targeting high-end tourists has implications for the visa on arrival/immigration system at the airport, the business climate is crucial since investment in tour operations and hotels will have to be made by the private sector.

3.35 ***Tourism development will have a wide impact*** on a broad range of business opportunities: hotels, restaurants, retail stores selling handicrafts, handicrafts producers, tour agencies, tour operators, and so on. Tourism development will provide a wide range of investment opportunities for private sector entrepreneurs. There will be important employment effects from an expansion of tourism for both skilled and unskilled workers. Over time, the increased demand for skilled and educated workers will provide an impetus towards higher education and training. The development of the tourism sector will also have a more direct impact on poverty alleviation via demand for less-skilled labor inputs: waiters, drivers, room service personnel, and so on. Growth of the tourism sector will also open up opportunities for producers of horticulture and handicraft products, but only those that can produce to the standards and quality demanded by tourists and hotels and restaurants (see the section of horticulture).

3.36 ***The biggest obstacles to achieving the goals of the Tourism Strategy are the lack of human capital in the tourism sector and the generally low level of development of all components of the sector***.[32] Most of the staff of the new four and five star hotels is expatriates from other countries in the region and from South Africa. In general Rwandans do not have the qualifications for management positions or even for supervisory positions.

CONCLUSIONS AND RECOMMENDATIONS

3.37 The country's small size and limited physical assets, beyond its gorillas, dictate a tourism strategy that requires a high level of human capital specific to the tourism sector. Human capital is in very short supply in Rwanda and will take time to develop. The tourism sector will also remain highly vulnerable to events entirely outside its control relating to security and image. If Rwanda can achieve the goals of its Tourism Strategy, the benefits to the country will be extensive – and these benefits will be distributed both geographically and among income groups. Tourism can play a significant role in accomplishing the goals of growth and poverty reduction set forth in Vision 2020 and therefore should be identified by the government as a priority sector. However, this role can only be fulfilled if there is a substantial increase in human capacity and the climate for investment is improved. This leads to the following recommendations:

A. ***Rwanda needs rapid and extensive training and education to develop human capital in the tourism sector.*** Most of this training will have to be done through government programs either with government funding or through donor technical and financial assistance. Technical assistance should be directed at developing and funding tourism studies and training at the university/college level; providing scholarships for study in tourism and tourism-related majors, such as hotel and restaurant management, both within and outside Rwanda; attracting short, medium, and long-term experts and teachers in the tourism field. Also in this context is the need to introduce standards into various aspects of the tourism sector.
B. ***An initiative to integrate Rwandan tourism with tourism to other countries in the region should be developed and supported.*** Such a strategy was highly successful in Laos where tours of Laos was added to tour packages developed under Thailand's very successful "Amazing Thailand" campaign. Both countries benefited, since Laos had attractions that were not available in Thailand and tourists were attracted to Laos who would not have gone there to see only its attractions.

[32] In an effort to address the shortage of trained personnel in the tourist sector, a tourism education program at KIST was introduced in 2003. However, it had to be canceled when the course content was found to be unsuitable. This failure left many students, who had registered for a degree with an emphasis on tourist and hotel management, stranded without any classes to attend. Now some students are being sent to Nairobi for education and training.

C. ***Rwanda also needs assistance in marketing itself as a tourist destination.*** A positive image of Rwanda as a safe destination and as a place with a variety of tourism experiences needs to be built and disseminated.

Chapter 4 Reducing Trade Costs and Raising Incomes: Improving Transport and Customs Services

4.1 This chapter focuses on two key issues which directly affect the link between exporters and world markets; transport and customs. Relatively high prices for these services and long delays not only limit exports and imports but also directly impinge on the prices that exporters receive and the prices importers must pay and so impact adversely on incomes. The chapter on poverty demonstrated how improvements in these trade costs could have a significant poverty reducing impact on those currently producing commercial crops for export. Improvements in rural transport are also fundamental to a broader strategy of increasing the participation of rural farmers in market and export oriented activities. The key recommendations from this chapter are:

- There is a need to improve the rural road network in Rwanda, to reduce transport cots and bring the poor within reach of markets and the opportunity to produce products which offer higher returns than those from subsistence activities.
- Efforts need to be made to improve the transit of goods to and from Rwandan along the two corridors to international ports.
- Cold storage facilities need to be upgraded.
- Continuing modernization and computerization of customs should reduce clearance times and trade costs and allow for more effective scheduling and organization of transport services.

Transport and Logistics: Major Constraints to Trade and Poverty Reduction

Introduction and context

4.2 ***Rwanda is severely constrained in accessing global Markets.*** High transport costs constitute a significant constraint to participation in world trade. Kigali is distant from the key ports that provide access to international markets, being 1700 km from Mombasa and 1500 km from Dar Es Salam. Transport rates of 165 USD per ton from the port to Kigali are typical. This compares to rates in the region of 95 USD per ton that Ugandan importers and exporters in Kampala have to pay. These high transport costs directly increase the cost of inputs such as fertilizers (by 60 to 80%) and decrease the margin that local produces of commodities can capture over world prices. Therefore, high transport costs have a direct impact on rural poverty by limiting the returns to the production of commercial crops and constraining diversification. Landlocked countries export on average less than one-half the per-capita amount of their maritime neighbors.

4.3 ***However, delays can be even more burdensome than direct costs for economic development***. The observed transit delay between arrival at the gateway port and the clearance of the goods in Kigali is typically four weeks, but delays of two months or more are not uncommon. These huge delays, exacerbated by their unpredictability, are a serious handicap to economic development. The delivery of inputs and capital goods are more complex and costly, increasing the total cost of logistics beyond transport. Unpredictability more than cost limits the potential for diversification of the economy: a reliable supply chain being a prerequisite to enter into global production networks.

4.4 ***Whilst the quality of infrastructure on the main international trade routes is important, other "soft" factors are often more critical, especially transit related activities.*** Road and rail infrastructures have many weak links. However the cause of delays is often to be found primarily in the procedures and provisions applied to goods in transit. An obvious policy challenge for Rwanda is that most of the problems impacting the supply chain lie outside the country. Regional initiatives and active Rwandan participation in corridor organizations will be crucial in improving access to overseas markets. Nevertheless, ***for key products high internal transportation costs, especially in rural areas, reduce returns to farmers and limit economic activity.*** This section reviews these different elements of the transport chain that are of relevance for traders, highlighting where the main barriers arise and how they might be addressed.

INTERNATIONAL TRANSPORT ON THE MAIN CORRIDORS

4.5 ***Rwanda is dependent on the quality of transport and transport procedures on the two main corridors.*** There are two main routes (corridors) that serve Rwanda:

- The Northern Corridor (Mombasa, Nairobi, Malaba, Kampala, Katuna, Kigali-1700 Km.). Rail is an available option between Mombasa and Kampala.
- The Central Corridor: A multimodal route from Dar Es Salaam, with a dry port at Isaka (500 km from Kigali and 980 km from Dar es Salam)

For a landlocked country access to different corridor options is beneficial. It makes possible competition and, in principle, better service and fewer delays. The Northern corridor today is more widely used than the central corridor (4/5 of the tonnage). The share of the central corridor has been falling in recent years due in part to adverse road conditions and very poor railway operations. Congestion at the port of Mombasa leads some traders to prefer to ship through Dar es Salam. However, the preference for the Northern corridor can only be partly explained by the infrastructure; better quality transport services are also available on the Northern corridor. Kenyan haulers are large and tend to be more reliable, while Tanzanian companies are smaller and less well organized. In addition, the Northern Corridor is overseen by a corridor authority, which has been able to catalyze some cooperation and implement facilitation measures such as a common customs declaration.

4.6 ***On both corridors transit traffic has to overcome serious obstacles***. Both ports are highly congested, but for different reasons. The container terminal in Dar has high performance, but its potential is hampered by weak transport procedures. Indeed customs and other procedures explain the bulk of delays observed on the two corridors, whether in the ports or en route. The road infrastructure is not good on either corridor. The road on the Northern Corridor is paved but needs heavy rehabilitation, especially in Kenya. The critical rehabilitations are being financed by the World Bank and the EU. In Tanzania, the road is not paved on half the journey from Dodoma to Isaka, which is a serious impediment to container traffic.

4.7 ***On both corridors transit goods face substantial procedural obstacles that explain up to half of the time spent in transit.*** (i) Customs clearance procedures in Kenya and Tanzania remain essentially manual and do not discriminate transit goods at an early stage. This makes the transit process as lengthy as that for the clearance of goods for domestic consumption. In Mombasa, a fast track system for transit goods is under experiment for containers by train. There are no reasons why this approach should not be generalized to all transit traffic. (ii) Kenyan and Ugandan customs impose a convoy requirement. In Kenya, convoys and escorts are especially stringent and cause much delay en route or in waiting time at the border. (iii) Axle-load regulations, although justified in terms of road maintenance, create serious disruptions, in their present implementation, notable in Kenya. Each country has developed incompatible interpretations of the COMESA or SADC guidelines, which can make cross-border activities complex. However the main problem is the disruption introduced by improper weighing procedures notably in Kenya, leading to delays and improper practices. (iv) Finally border crossing can be facilitated by the systematic implementation of common documentation on the CD-COM model as well as better coordination between border posts (common hours, single stop….). The main problem is at Malaba at the Kenya-Uganda border.

4.8 ***While rail transportation offers lower rates, as much as 50 percent less than road transport, use has plummeted due to poor operational performance***. In part there is a problem of aging rolling stock, but according to the private sector it is essentially a management problem, the railroad companies are unable to plan the utilization of their wagons for the movement of containers. The railroad is slow and unpredictable: the journey to Isaka by train takes between one to six weeks (compared to 5 days by road). Operators would welcome efficient train operations especially for heavy loads so that the low loaded journey by road would be only 500 km.

4.9 ***Rwanda is not achieving its potential as a transit country.*** Whilst transit to Burundi and DRC is important, Rwanda is not yet fully benefiting from its potential as a transit country. Being a significant transit country not only generates economic activities but also allows for greater scale and more efficient transport operations that bring the country additional benefits. In 2004, roughly 40% of the trucks entering Rwanda were in international transit. Although, Burundi and Eastern DRC are more naturally served by the Central Corridor, Rwanda is strategically located for transit by the Northern Corridor. Although substantially longer, the route might be preferable for products, for which key organizations, such as auction houses, are located in Mombassa.

4.10 ***Building a railway link to Kigali is a potential long-term approach but the costs and benefits need to be carefully assessed. The investment required is only likely to be justified if trade volumes increase substantially and the efficiency of rail operators improves.*** The suggested construction of a railway connection from the dry port of Isaka to Kigali would improve access to the Indian Ocean and so to international markets. Since transport costs are significantly lower for goods carried by rail than they are by road, this could lead to significantly lower transport costs and therefore cheaper imports and more competitive exports. It would also support Rwanda's strategic goal to become a transport hub for the Eastern African region. A railway branch to Kigali would have to be created over 500 km of sometimes difficult terrain. A very quick calculation suggests that the total cost of a new railway link could be in the region of $750 million (equivalent to more than 5 times the value of annual exports). It is important that the costs and benefits of such an investment be carefully assessed beyond an assessment of its feasibility.[33] Current traffic flows would result in less than two trains per week on this route. Even if all the current import and export volume of Rwanda were to be transported by this route, the total amount of cargo would still be comparatively low and would not generate sufficient revenue to justify the investment in new track. This problem is exacerbated by the lack of capacity and poor quality of transport services on the rail network in Tanzania that currently dissuade transport operators from using rail on the central corridor. *The rehabilitation of the existing rail network in Tanzania and its two branches to Lake Victoria and Tanganyika are prerequisites for additional investment in rail transportation. This should be the responsibility of the concessionaire to be designated by the Tanzanian Government.*

4.11 ***The market in Rwanda is currently very small and there are few transport operators.*** In Rwanda, there are reportedly only 3-5 transport companies operating trucks able to carry twenty-foot- (TEU) or forty-foot containers (FEU). Each of these companies operates approximately 1-4 trucks. Most trade logistics services in Rwanda are provided by foreign based operators, mostly Kenyan or Tanzanian, including companies owned by Rwandan expatriates. With import volumes much higher than export volumes approximately 50 percent of all containers return to the ports empty. Hence exporters are often able to negotiate favorable terms. The absence of domestic sector for international logistics is not conducive of the development of a much needed efficient transport sector for national transport. Current restrictions in neighboring countries limit the possibility of Rwanda transporters to take loads between neighbors. Such cabotage could be an important means of allowing the more

[33] The African Development Fund (ADF) has announced that it will fund (at a cost of $2.4 million) a feasibility study of the Isaka - Kigali railway.

effective use of a transport fleet. In other words, a truck returning empty from Rwanda should be able to pick up a load in Uganda for delivery in Kenya. Finally, there are a number of restrictions to establishing a transport company. First, the investment in a truck has in most cases to be financed through a bank loan with high interest rates. Second, trucks capable of operating internationally carry up to 60 tons but due to the weight restrictions cannot be fully utilized.

4.12 ***The operations of the MaGeRwa suffer from lack of capacity and inefficient or inappropriate equipment.*** All traded goods must pass through a bonded warehouse operated by the MaGeRwa Company. In Kigali, MaGeRwa has a target to issue the note of arrival within three days of the day of arrival. However, this limit is often exceeded and it can often take up to 6 days. The limited MaGeRwa operating hours of Monday to Friday from 8am to 5pm is a constraint. A truck arriving in Kigali on a Friday after 5 pm has to wait until the next Monday before it can be processed. Delays at the warehouse arise from lack of warehouse capacity, broken or limited availability of handling equipment, and lack of employees. The available area is currently too small to handle all arriving trucks which causes congestion to surrounding roads. It is estimated that two additional warehouses of similar size are needed to effectively provide the required services. Handling equipment is very old and regular breakdowns cause delays in handling goods. At least a dozen forklifts and 2-4 reach stackers or mobile cranes are needed. Lack of pallets also causes delays in unloading goods from containers.

4.13 ***The MaGeRwa fee should be based on services provided. Allowing for competition in the provision of bonded warehouses and handling services is likely to increase the quality of service, reduce delays and lower transport costs.*** The services provided by MaGeRwa are basic logistics services which are commonly performed by private companies in a competitive environment. The current four percent handling fee increases overall transport costs. Three-quarters of the fee goes to the state, and is effectively a non-transparent import tax that should be collected as such and is inconsistent with WTO obligations. In neighboring Uganda, the government has successfully introduced privately run licensed bonded warehouses. Approximately 124 licensed bonded warehouses are operated through third party logistics service providers, local exporters and importers as well as oil installations. A similar approach should be considered in Rwanda. The legislative decree granting MaGeRwa a monopoly should be reviewed with the objective of allowing interested parties with appropriate facilities to apply for licenses to operate bonded warehouses.

4.14 ***Export procedures introduce delays and raise costs.*** Customs takes up to two to three days to process an export declaration. Customs requires that the documents must include the registration number of the truck before the application can be processed. As trucks are booked on the basis on availability it is almost impossible to schedule in advance which specific truck will carry which shipment abroad. Thus, once the truck has been chosen it can wait up to three days in Kigali for the export declaration to be processed. During that time a foreign registered truck is not allowed to provide local transport services. Procedures for export should be expedited so that processing time is reduced from days to hours.

CIVIL AVIATION

4.15 ***Substantial strides have been taken to upgrade civil aviation standards and infrastructure, but further improvements are necessary in the form of a taxiway, equipment for marshalling planes and training***. A current rehabilitation program for the international airport[34], has or will lead to

[34] A study is being prepared on the feasibility of a new airport approximately 40 kilometers outside of Kigali. If implemented, the new airport should be operational in 8-10 years. However, plausible forecasts of future

rehabilitation of the apron (part of the aerodrome set aside for loading and unloading or maintaining aircraft), the resurfacing of the runway, renewal of airfield lighting, provision of adequate energy, upgrading of navigation aides and fire fighting facilities. However, an increase in flight movements at Kigali International Airport will require the construction of a taxiway parallel to the runway.[35] Construction of a second taxiway is estimated to cost USD 1.9 million (FRW 1,060 million).

4.16 ***Another concern is the size of the available apron.*** Aircrafts have to be parked nose-out as there is no equipment available to perform push-backs of the aircraft from its parking position to a taxiway. This nose out maneuver of the aircraft requires much more space of the apron and limits the number of available parking positions. There are two possible solutions. Enlargement of the existing apron and/or purchasing of push-back tugs to facilitate aircraft maneuvering and increasing the number of parking stands. The enlargement of the apron is estimated to cost USD 1.2 million (FRW 637 million), push-back tugs are available from USD 30,000 (not incl. freight and taxes). Finally, bureaucratic obstacles, such as the processing of travel applications which can take 10 days or more are constraining the ability of staff to attend important overseas training courses.

4.17 ***Lack of regular flights to major markets and poor handling facilities are major obstacles, especially to exports of horticultural products.*** There are only a limited number of destinations and flights available for passengers and freight to/from Kigali International Airport. The Eastern African region is well covered with regular flights on a daily basis to Kenya operated by Rwandair Express and Kenyan Airways on a code share agreement. SN Brussels Airlines is the only airline offering scheduled passenger fights outside of Africa. Airfreight is transported on a scheduled and non-scheduled basis to African neighbors and to several European destinations. Loading and unloading times can be long, especially when handling equipment breaks down. Goods arriving after 5pm on Friday are not processed until the following Monday.

4.18 ***There are problems with the screening of airfreight which can lead to serious delays.*** Export airfreight is 100 percent screened. A new cargo scanner, especially designed to meet the requirements of airports, customs facilities, carriers, and parcel services, was installed in 2003. There have been complaints that this scanner has often been out of order as a result of damage from high electricity peaks. Repair can take several days as service experts from South Africa have to be flown in to do the repair work. In these cases cargo has to be inspected manually which can take a great deal of time for a large pallet or crate that has been prepared for shipment. Sometimes goods can not be loaded in time and may be delayed for several days as in the case of flights to Brussels.

4.19 ***A major constraint is caused by the opening hours and the limited capacity of the MaGerWa warehouse facilities and customs***. Opening hours are from 8am to 5pm during which time all goods for export have to be processed regardless the scheduled time of departure. For the only flight to Europe, which leaves at 20.45, goods have to processed almost four hours before departure. The operational hours of customs and the warehouse operator should be adjusted to be consistent with airline schedules. Further, there are complaints that MaGeRwa and customs procedures are inconsistent and may change on a daily basis. No written document on proper procedures for the exportation of goods is available. The MaGeRwa facilities at Kigali International airport comprise three warehouses. The main warehouse is dedicated to imports and the two smaller hangars for export

passenger growth suggest that the current passenger terminal is likely to be adequate for the next 25-30 years if necessary investments and rehabilitation work are undertaken.

[35] All aircraft of 30 tons or more are not allowed to make half-turns on the runway, they have to taxi to the turn-around area at the end of the runway and then return the runway in order to taxi to their final stand on the apron. During that time the runway can not be used by other aircraft for take-off of landing. For safety reasons, an aircraft should leave a runway as fast as possible.

shipments. No shelves are available in either warehouse and goods have to be placed on the ground. Due to limited space, bulky import shipments have to be stored in the export hangars. The construction of a fourth warehouse dedicated to exports is under construction. There are three forklifts available of which only one is working. A new investment program is to be set up in order to improve the cargo handling facilities including shelves in the main warehouse.

4.20 ***The issuance of an arrival note required for customs clearance takes too long, on average two days***. Given that airfreight is typically used to transport time-sensitive goods, the current handling time from landing of the aircraft to the release of goods is at an unacceptable level. ICAO recommended practice for the processing of import cargo is to release all general cargo within 4 hours from the time documentation is presented. These times are currently not met at Kigali International Airport. All stakeholders, airlines, forwarders, handling company, customs, warehouse operator and the airport should come together to cooperate to develop procedures to reduce unnecessary long clearance times of cargo and to assess the possibility to implement automated cargo clearance procedures (see Box).

Box 4.1 Automated Cargo Clearance

In recent years the automation of the air cargo clearance process has been a high-priority item on the agenda of the customs services of the world as a means of managing the vast amount of data which is exchanged among the various parties involved, i.e. customs, shipper, consignee, air carrier, customs broker, agriculture and other interested government agencies. The need to enhance controls in the face of increased risks posed by drug trafficking, violations of intellectual property rights, smuggling of endangered species and other illegal activities, combined with the growth in international trade volumes, has made it increasingly difficult for government inspection agencies to perform their enforcement missions with finite resources. Moreover, studies of traditional air cargo systems have concluded that the average "dwell time" of an imported shipment (from its arrival to its release for delivery) is 4.5 days a delay which to most air cargo customers is unacceptable. Automated solutions are sought by air carriers, customs brokers, and the authorities, to ensure better compliance with laws and faster clearance of low-risk cargo by managing the traffic more efficiently.

Automated cargo systems consist of two principal components. A system for processing entries in an automated manner is fundamental to the States in which Customs is automated. The automated manifest component, developed in some States, completes the automation of the air cargo clearance process. Cargo manifest and air waybill data which are transmitted by the air carrier are matched in the Customs system with entry data which has been transmitted by the importer or customs broker, and are reviewed by the inspector with the aid of data bases and other intelligence to determine whether the goods can be released on the basis of the information or whether a physical examination needs to be made. If the information from both components of the system is transmitted early enough, this decision can be made before the arrival of the flight.
Source: International Civil Aviation Organization

4.21 ***Further support is required for the effective establishment of the Rwanda civil aviation authority.*** The government has set out the legal basis to establish the Rwanda Civil Aviation Authority. Implementation is estimated to cost USD 1.15 million and is expected to be completed by 2005. The main obstacle is lack of expertise. Further support from international civil aviation organizations is needed as well as bilateral or multilateral cooperation for training technical personnel to operate the new air traffic management system. The Ministry of Infrastructure needs administrative and technical support from regional and international organizations such as COMESA and ICAO, the US Federal Aviation Administration and the European Aviation Safety Agency.

DOMESTIC ROAD TRANSPORT

4.22 ***Whilst inter-city roads are paved and generally in good condition, rural areas suffer from poor quality unpaved roads***. The total length of Rwanda’s road network is estimated to be about

14,000 kilometers long, of which some 5,350 to 5,408 kilometers is classified as main road network. The extent of the paved main road network is about 1,000 kilometers depending on the source of information. Thus the unpaved main road network extends some 4,300 to 4,400 kilometers. The roads between Kigali and the main cities as well as between the regional centers are reported to be paved and in good to very good condition. Many of the paved main roads have been or are currently being rehabilitated, mainly through European Union funding. Adequate road conditions are also available towards the border-crossing points to Tanzania, Burundi, Democratic Republic of Congo and Uganda. Transportation inside Rwanda is provided by a fleet (10,000) of pick-up and small trucks carrying typically 4-6 tons. There are also limited public transport services. However, for the majority of farmers the only affordable means of transport is walking and head loading their agricultural products to the market.

4.23 ***The very poor condition of unpaved roads is a major factor raising local transport costs.*** Poor conditions result from heavy rainfalls during the rainy seasons and lack of maintenance. The poor quality roads raise vehicle operating costs from increased wear and tear[36] and lengthen transport times as vehicles have to drive at walking speed, Fuel consumption is very high and contributes to 40% or more of the operating cost. Moving the coffee crop from the Cyangugu province to Kigali (300 km) can take two days and costs 60 USD per ton. The freight rate of 20 cents per ton/km is more than twice the rate for international transportation. Vehicle operating costs are estimated to be about 50 per cent higher on poor quality roads compared to good quality roads. A very simple and crude calculation suggests that improving the poor quality roads in the country would lead to savings in vehicle operating costs of close to $50 million per year.

4.24 ***Better rural roads are crucial to the objectives of linking rural inhabitants to domestic and international markets and to the success of the strategies for tea and coffee.*** The poor quality of rural roads creates a major barrier to the participation of the rural poor in domestic and international markets. Lack of adequate road infrastructure raises transport costs and reduces returns to farmers involved in commercial crop production confining many farmers to subsistence agriculture. Poor roads limit the flow of information to and from rural areas and hence constrain the flow of critical factors such as credit and training to rural areas (see Box 4.2 for an example of where improved roads have facilitated greater participation of the rural poor in the wider economy).

Box 4.2: Poor Road Conditions, Vehicle Operating Costs and Participation in Markets.
According to a World Bank study, the lack of maintenance on the road between Gitarama and Kibuye raised vehicle operating costs from a 1989 level of $1.00 per kilometer to almost $3.40 per kilometer in 1996. The recent rehabilitation of the road has resulted in a fall of more than 50 percent in vehicle operating costs and to a reduction of overall transport costs of about 40 percent. As a result, agricultural surpluses in the area can now be sold in markets throughout the country, and a general shift is taking place from subsistence agricultural to production for the market.

4.25 ***The strategy to increased returns to coffee farmers by raising quality through the provision of coffee washing stations will only realize its full benefits if rural transport logistics are improved.*** This will require better roads. The coffee beans have to be washed within six hours of harvest to ensure quality. Thus, for a start remote farmers who are, under current road conditions, more than 6

[36] Reportedly, the lifetime of a pick-up truck is 2.5 years compared to 5 years for those used on good road conditions. Spare parts have to be purchased on a regular basis especially those related to the shock absorbing system and tires. The normal capacity of such a pick-up truck according to manufacturers is from 1.5-4 tons; however, several sources reported that these pick-ups are loaded on average with 6-8 tons of goods. These overloads are likely to increase total operating costs. Overloaded trucks not only damage the vehicles, but also wear the already bad roads through poor or broken suspension systems.

hours away from a coffee washing station, will not be able to benefit from this strategy. Secondly, without improved roads, washing stations may not be able to organize effectively the logistics of dealing with the large-scale demand that will arise during harvest time. Domestic distribution of crops involves usually several middlemen in the transport chain increasing costs of transport and reducing the revenue of farmers. The need for intermediaries can be attributed to small plots of farms producing small quantities of crops, limited access to warehouse facilities in the proximity of farms and the lack of own means of transport. The development of warehouses and a more rational structure for transport services at the rural level will be hampered by the lack of suitable roads. Better access to roads will also be crucial in stimulating a broader range of activities in rural communities and in particular an increase in non-farm employment.

4.26 ***Poor quality roads raise the operating costs and limit the services of the public provider of passenger transport services***. Public transport is a key mode of transport for the population and is also widely used by farmers to bring their crop to market. ONATRACOM, the Rwandese national transport company, is a government owned company established in the early 1960's providing regional and interregional public transport services within the country. Prior to the genocide of 1994 the company operated an estimated fleet of 250 busses and coaches. In November 2004, the company has 66 operating buses with a seating capacity of 50 passengers each, actual total number of passengers is often up to 80. The company employs 242 drivers and has 35 administrative posts. In 2003, 3.6 million passengers were transported and for 2004 the number is estimated to be above 4 million.

4.27 ***Damages to buses caused by bad road conditions are a major problem***. The main damages are caused to broken springs which have to be replaced on a regular basis. Approximately 98 percent of the company's network goes along unpaved roads in rural areas. Of the annual budget some 25 percent is allocated to maintenance, spare parts and tires for buses and is the second highest element in the budget, 42 percent is used for fuel, 17 percent for personnel and 2-3 percent for insurance premiums. Emphasis is given to reduce damages by training drivers and avoiding overloading of buses. Under current conditions transport times are exceptionally long even on paved roads. The route Gisenyi-Gitarma-Kigali, a distance of 156 kilometers, takes approximately 8 hours, an average speed of 19.5 km/h. The route from Gisenyi-Kibuye-Cyangugu takes two days with an overnight stop in Kibuye. The total driving time for this 248 km long leg is estimated to be 16 hours, an average speed of 15.5 km/h.

4.28 ***There is the need to renew the fleet for intercity transportation and push ahead with privatization***. ONATRACOM expects to acquire 93 buses supplied through Japanese cooperation. A more competitive environment with private operators is more likely to satisfy the unmet demand of transportation and improve operational performance. The privatization of this company is only in its preparatory stages.

CONCLUSIONS AND KEY RECOMMENDATIONS

4.29 ***Reducing transport costs and improving the quality and reliability of transport will be crucial to export expansion and poverty reduction.*** There is scope for substantial improvements for road, rail and air transport of goods and for passenger transport. A broad approach is needed to look at constraints both within Rwanda and in neighboring countries on the main corridor routes. A priority must be transport infrastructure in rural areas to allow the rural poor to participate in markets and so expand involvement in commercial activities.

4.30 ***Whilst large scale infrastructure projects on international transport routes should be carefully assessed they should not distract attention from crucial issues relating to the costs of using existing routes which will have a more direct impact on poverty alleviation***. It is important to assess the costs and benefits of proposals such as the Kigali to Isaka railway and the new international airport. Whilst these projects could have a significant impact on long-term growth they are unlikely to make a major contribution to the achievement of the medium term objectives for poverty reduction that have been set by Rwanda. There are a range of issues relating to transport on international corridors and rural transport that, if addressed, could lead to significantly lower transport costs and fewer delays in the short and medium term. The main recommendations and priorities are

1. Rural roads should be improved to reduce transport costs, facilitate diversification and allow objectives regarding higher quality of products such as coffee to be achieved.
2. Rwanda should make use of its participation in regional and corridor organizations to enhance transit facilitation in gateway countries. For the Northern Corridor, the transit transport co-ordination authority is the appropriate forum to address issues such as customs transit procedures in Kenya. Rwanda should also push for the creation of a similar body for the Central corridor.
3. The mandatory use of a single public bonded warehouse should be reviewed since the current system raises transport time and transport cost. First, fees paid for the Magerwa should not amount to an extra duty but should be based on actual services rendered to the customer. The processing time for registration, notification of the importer and customs declaration can take up to one week reflecting lack of handling equipment and warehousing space. Competition in the provision of bonded warehouses would very likely decrease handling times and increase the quality of service.

AN EFFICIENT CUSTOMS ADMINISTRATION: KEY TO REVENUE COLLECTION AND THE SMOOTH FUNCTIONING OF TRADE

Introduction

4.31 ***Customs needs to apply procedures that are simple, predictable and transparent.*** Inefficient and costly border procedures exact significant cost on both the businesses that have to use them as well as the authorities that have to administer them. For businesses, border-related costs are both direct, such as expenses related to supplying information to the relevant border authority, and indirect, such as those arising from procedural delays, lost business opportunities and lack of predictability in the regulations. The cost of inefficiency to government includes unsatisfactory revenue collection and smuggling as well as difficulties in effectively implementing trade policies. Inefficient border procedures are also likely to lead to poor export competitiveness and make a country less attractive to foreign investment and reduce the ability of domestic firms to participate in global production networks. Improvements in all of these elements can impact positively on poverty reduction.

4.32 ***In Rwanda there has been some success in improving the services of the Customs Department but much more can still be done to improve the role of customs in collecting revenue and facilitating trade.*** Significant steps have been made in introducing automated systems for customs data, in applying international norms for valuation and in establishing a customs service which is generally perceived as being free of widespread and entrenched corruption. Whilst, these changes have helped to reduce impediments to trade and transportation there is still much more that can be done to reinforce and extend recent initiatives and to further enhance the role of the customs department in facilitating trade whilst fulfilling its role with regard to duty collection. In particular, there is a need to enhance the effective application of the transaction method for customs valuation, implement effectively and widely the migration to the more advanced automatic system under Asycuda++ and, most importantly, address issues of training and capacity of customs staff as well as traders and private agents.

4.33 ***Effective application of computerized systems could significantly reduce clearance times and reduce the costs of trading, facilitating both imports and exports and allowing for the more effective utilization of transport resources.*** Currently, average clearance times for imports are around

3 days. Whilst this is not high relative to other countries in the region, international experience suggests that this could be reduced to 2 days with the use of computerized systems. This cost is borne by consumers and users of imported intermediate inputs. Similarly, a significant reduction in the average clearance time for exports, which currently stands at 2 days, which is high by international standards, would bring substantial benefits in terms of facilitating exports and raising returns to exporters. Crude estimates suggest that each day of waiting in customs raises the cost of trading by 0.5 percent. Thus, reductions in clearance times for imports and exports of one day would, on the basis of 2003 trade values, directly save the Rwandan economy in the region of $3million per year, without taking into account the additional benefits of lower import prices and higher export returns.

MODERNIZATION AND COMPUTERIZATION OF CUSTOMS PROCEDURES

4.34 ***Simplification of customs procedures supported by computerization should contribute to revenue collection, to transparency, to the efficient and effective operation of customs and therefore to trade facilitation.*** As part of the drive for modernization a revised customs law has been drafted by the government and is currently under discussion in the Parliament. This law seeks to introduce regulations based upon international conventions and best practices. The key elements of this include:

- Adoption of the principles of the Revised Kyoto Convention known more formally as the on International Convention on the Simplification and Harmonization of Customs Procedures, which define international best practice in a range of areas.
- The adoption of the WTO Agreement on Customs Valuation (implementation has already commenced)
- Acceptance of electronic customs declarations
- Provision for sanctions against corrupt customs staff.

4.35 ***There is a need for a strong information and capacity building strategy to effectively implement the new customs law.*** The new, modern procedures that the customs law seeks to apply will require substantial efforts towards training and capacity building in customs (such training is discussed further below). However, it is equally important to raise awareness of these changes more widely in the business community and to provide the private sector with the capacity to effectively exploit the opportunities for more efficient customs clearance that will arise.

4.36 ***Effective implementation of Asycuda++ in all customs offices should be a priority.*** Customs has adopted a program of computerization that involves applying the Asycuda system, developed by UNCTAD. Installation of Asycuda++ took place in the Gikondo customs office and at Kigali airport in November 2004 and a current project is charged with installing this system in all other customs offices. The new Asycuda system will enable different stakeholders (customs clearing agents, importers, and exporters, transporters) to submit their customs declarations electronically without customs staff themselves having to enter the data. It is important that all of the modules of Asycuda++ be used. Asycuda++ offers a number of facilities such as a risk analysis module that can guide selectivity in physical and documentary inspections, the ability to monitor clearance times and a transit module. A strategy to exploit these opportunities should be carefully defined since substantial training of customs staff and of traders and clearing agents is required to ensure that the benefits from customs computerization are maximized.

4.37 ***An automated risk based approach to physical inspections should be effectively implemented.*** Asycuda++ offers the opportunity to apply greater selectivity and a risk based analysis to physical inspections, allowing customs resources to be more effectively targeted whilst maintaining the minimum risk possible. A customs section for risk management should be established to manage the introduction of a risk based approach to inspections and to monitor its implementation, ensuring a progressive increase in the proportion of goods entering through the green channel, without physical inspection. The underlying assumptions that support such an approach are that (i) Customs can never detect or prevent all frauds, (ii) a large number of importers are compliant, and therefore should not be submitted to the same level of controls as suspicious operators, and (iii) there is a cost for controls, both for the importers and the administration, so Customs should mainly (but not only) apply its resources towards risky cargoes. All these points must be supported by an adequate organization, sufficient legal powers, inter-agency cooperation, and an effective penal system. IT support is necessary, but risk management is only as good as the human inputs that are used to follow up.

4.38 Selectivity is based on the analysis of the elements of a declaration and accompanying documents, together with inputs from different data bases (record of offenders, list of goods that could be declared under different tariff headings carrying different levels of taxation, or implying different types of regulations, origins). Intelligence is also another source of information that completes the selectivity module. Elements of the declaration are compared against one another, and against the different data bases mentioned above. If there is an inconsistency, or a doubt as to the authenticity of what is declared, or a risk that an error or a fraud could be committed by the importer, the Customs officer who is reviewing the declaration may want to inspect the consignment. Typically, the physical inspection would take place if there was a doubt as to the real nature of the goods, or their quantity. Physical inspections are not usually useful in checking values as this is most effectively undertaken through a formalized program of post-entry audit conducted at the traders' premises.

4.39 ***Improved monitoring of the clearance of merchandise should be introduced.*** It is essential that modernization efforts translate into more efficient customs procedures and quicker clearance times. Asycuda++ offers the opportunity for streamlined customs procedures, more effective monitoring and the possibility to implement time and release studies. This can be an effective means to identify where further progress can be made in reducing unnecessary delays. In addition, the linking of entry and exit through the computerized system is also an important procedure for limiting the scope for smuggling.

4.40 ***The requirement to unload goods in customs warehouse should be reviewed.*** At present customs requires the unloading of all shipments. As selective physical inspections are introduced under a system of risk management the need for shipments to be unloaded will diminish and immediate removal for goods classified in the green channel will be possible. The shift to immediate removal for some cargoes under selectivity is likely to have a significant impact on customs clearance times. For example, in Mauritius before the introduction of Asycuda++ the processing of declaration typically required 24 to 48 hours, this has now been reduced to 30 minutes.

4.41 ***There is a need for improved treatment of goods subject to tariff exemptions.***[37] Rwanda has introduced certain exemptions from import duties, for example, in the case of investments that certify certain criteria. With such a system of exemptions and exception it is crucial to have in place an efficient system of control. Such control requires verification after clearance to ensure that the imported products were used in conformity with the requirements for duty free access. In fact, most of the control in Rwanda is undertaken prior to the decision to grant exemption from duties. The current lack of a computerized program for management of exemptions makes the required control more complicated. Asycuda++ provides for a more systematic coding of exemptions, which allows for monitoring by type of measure by product and by beneficiary. In general it is desirable to reduce the number of exemptions and exert more control over those that are granted. As suggested in the section on trade policy, the former objective can be met by reducing to zero, duties on raw materials and

[37] There are also schemes for temporary importation and for duty drawback, although since the time for reimbursement averages 2 to 3 years, the drawback scheme is seldom used.

intermediate inputs and by reducing duties on ICT equipment by joining the WTO Information Technology Agreement. For the remaining exemptions an objective should be to achieve a minimum rate of 30 percent verification per year through post clearance audit.

EFFECTIVE APPLICATION OF INTERNATIONAL APPROACHES TO CUSTOMS VALUATIONS

4.42 ***Technical Assistance is required to improve the application of the transaction approach to import valuation.*** In January 2004, Rwanda adopted the transaction value method for customs valuation and applies procedures consistent with the WTO Agreement on Customs Valuation (ACV). Application of these procedures assists the trading community and customs authorities to determine, with more certainty and predictability, the customs value and the amount of duties payable, therefore contributing to the facilitation of trade. The essence of the ACV is that valuation is based on the price actually paid and is not subject to arbitrary or fictitious customs values. When there is doubt concerning the declared value a sequential set of carefully defined methods is then applied. Ultimately, if agreement on valuation can not be reached the WTO Committee on Customs Valuation may be consulted.

4.43 ***Effective and consistent application of the transaction approach to valuation requires trained staff and a conducive structure of administrative organization.*** Applying the methodology outlined in the ACV requires procedural and organization changes to add certainty and transparency to the process of valuation. First, where there is doubt, the onus of proof in establishing value can be shifted to the declarant. Thus, there is a need to raise awareness amongst the trading community of the demands of this approach. Also, the final determination of value should not be an impediment to the release of the goods. Whilst customs may demand proof of the valuation declared, which may be difficult to provide immediately, goods must still be released, under security if necessary. *Effective management of the ACV requires post clearance audit, a systematic approach of risk management and selectivity of physical examinations* (which, in any event, have little role in establishing value).

4.44 ***Implementation of the ACV would be assisted by the development of a valuation database.*** To help customs officials identify suspicious cases it would be useful to develop and maintain a database containing relevant information on import values of similar products for use as a guide in decision making.

4.45 ***The Customs Administration needs to be reinforced to undertake post clearance audits.*** Post clearance audits are an essential feature of modern customs systems. This reflects the complexity of clearing products in an environment where different tariff rates are applied to a given product from different destinations, so that in addition to checking the tariff classification it is also necessary to check which preferential rate is applicable as well as checking certificates of origin. Thus, comprehensive and systematic checking at the border of each and every entry is at odds with providing reasonable clearance times and ensuring fluid movement of traded goods. To meet the objective of maximizing the chance of detecting fraud and smuggling it is therefore necessary to apply post-clearance audit. The role of the audit is to check that the customs procedures applied were appropriate and were implemented correctly ensuring correct valuation, tariff classification and application of appropriate duties. Ideally, this task should be organizationally separated from that of the valuation section. An initial project providing training on post clearance audit will shortly commence. It is important that the post clearance audit unit be further reinforced and supported.

THE FIGHT AGAINST FRAUD AND SMUGGLING

4.46 ***A strategic analysis is necessary to identify priorities in the fight against smuggling.*** Such an analysis should be open and transparent and based on accurate information. Such information is currently lacking. There is a need for comprehensive study of cross-border trade between Rwanda and her neighbors to identify the potential magnitude of smuggling and to target key products and areas that merit action. The analysis of priorities should be open and transparent and could take place in the context of the formulation of a national plan against smuggling.

4.47 ***Unrecorded cross-border trade is substantial, but a large proportion is not illegal.*** Studies based on border assessments highlight the significant amounts of unrecorded cross-border trade. An element of this is smuggling but it is also shown that a large proportion of unrecorded cross-border trade is not illegal.[38] The poor are substantially involved in informal cross-border trade and hence initiatives to prevent smuggling must be carefully designed so as not to have negative impacts on the poorest in rural communities. It is important that over time, as marketisation of the rural sector proceeds, that informal unrecorded trade across borders is encouraged into the formal sector. A careful analysis is warranted of current measures that may discourage cross-border traders from registering their activities. One constraint appears to be the Magerwa fee, to which all traders are eligible, whether or not they are provided with any handling services. A shift to a system of fees based on actual services provided would provide a more rational treatment of trade and remove the current tax on traded goods which do not require handling services.

RAISING CAPACITY IN THE CUSTOMS SERVICE

4.48 ***Current training of staff is insufficient.*** Effective application of international norms for customs valuation and procedures for risk analysis require well trained and motivated customs staff. At present, the amount of training provided to new staff is woefully inadequate relative to the tasks that they are expected to implement. For example, training on tariffs takes 2 days and only 4 hours is provided for valuation. Whilst opportunities for training abroad are available they are not taken up due to budgetary constraints. An institute for training for the Rwanda Revenue Authority is being established, which should be fully supported. Many staff of the Customs Administration are enrolled as private students at institutions of higher education. A structured and systematic training program for *both new and existing staff* is required.

4.49 ***The role of customs staff in the One Stop Centre in RIEPA needs to be enhanced.*** Despite substantial progress in simplifying procedures for businesses, there is a need to enhance the role of customs staff in this process. At present customs staff is seconded to RIEPA. The official acts as liaison between Customs and RIEPA concerning the requirements of investors. Given these operational demands the official is not always present at RIEPA and so all the required signatures are not always available at the same place.

CONCLUSIONS AND RECOMMENDATIONS

4.50 Rwanda has undertaken an ambitious plan to modernize and computerize customs procedures and adopt and implement standard international practices. A key prerequisite for the success of such a program is in place – the commitment of government officials to support and intensify the pace of reform. However, there are significant constraints to successful reform primarily in the form of weak institutional and human capacity for effective implementation. Hence, there is significant scope for

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[38] See Mthembu-Salter (2004), for example, for an assessment of cross-border trade between Rwanda and the DRC

technical assistance for continued support to customs modernization. Successful reform that provides a customs service that is efficient and effective in revenue collection whilst reducing physical times for customs clearance of both imports and export is likely to have a significant impact upon trade and poverty reduction. The priorities for assistance are:

- ***Continuing support for effective implementation of computerized clearance and risk analysis***, through the successful use of all Asycuda++ modules.
- ***Effective implementation of the Agreement on Customs Valuation*** entailing the use of the transaction method as the primary method of valuation and the development of a system of post clearance audit. There is a need for assistance in developing the valuation database.
- ***Enhanced training programmes***. An increase in human capacity throughout the customs administration will be required to achieve the objectives of computerization and adoption of international norms for valuation and other customs practices. It is important for such training to be provided on an ongoing basis and that initiatives are designed in a way that such training becomes sustainable.
- ***A strategic analysis of the issue of smuggling and cross-border trade,*** in the context of a national plan against smuggling. This should address the issue of how to reduce systematic illegal activities that significantly undermine revenue collection. The study should identify measures that can be taken to encourage informal trade into the formal recorded sector whilst enhancing the incomes of the poor involved in such activities

4.51 Finally, it must be recognized that some of the key problems regarding customs clearance for Rwandan traders occur not with Rwandan customs but in clearing borders in neighboring countries. It appears that customs clearance times in Kenya, for example, greatly exceed the average for Rwanda. Hence, Rwanda needs to effectively pursue its interests in bilateral and regional discussions, through COMESA that will address these key barriers to imports and exports into Rwanda. For example, Rwanda should seek a framework by which joint border posts with Uganda could be implemented. Thus, Rwanda should be assisted in making the northern and central corridors upon which it depends more efficient in terms of customs clearance.

Chapter 5 Financing Trade and Rural Development

INTRODUCTION

5.1 ***Lack of financial intermediation is a major constraint to rural development.*** This report suggests that reducing trade costs should be a priority in the trade strategy of Rwanda. Lower trade costs will increase the returns to trade and will therefore increase incomes of those who produce tradable commodities. This will be the case for traditional export products as well as new products and hence will be an important element encouraging export diversification. Chapter 2 on trade and poverty suggested that those farmers and rural households that are involved in commercial activities are less likely to be poor than those who concentrate more on subsistence farming. However, whilst lower trade costs are a pre-requisite for higher incomes in rural areas, there are substantial barriers which constrain the movement away from subsistence into commercial activities. One reason that farmers prefer subsistence activities to the higher returns from commercial crops is that the risks associated with commercial activities are higher. In addition, shifting out of subsistence requires investment in new plants or materials and equipment for non-agricultural activities. There will be a need to learn new skills and techniques. There will also be a period during which there will be a reduction in income as the new plants mature to the first harvest or other activities generate marketable products. These barriers can be overcome through the efficient operation of financial markets, but in Rwanda, lack of financial intermediation in rural areas is a key reason for the lack of rural development. Until this is tackled, the role of trade in raising rural incomes will remain severely limited.

5.2 ***Financial markets and institutions play a crucial role in underpinning economic growth and facilitating international trade,*** reallocating financial resources to their most productive usage, mobilizing the funds from firms/individuals with excess funds and channeling them to firms with good growth prospects. Without access to external finance, firms cannot realize their full growth potential, which results in slower economic growth for a country as a whole. If firms find it difficult to raise external finance their growth is limited to the levels that they can finance internally or by relying on often prohibitively expensive informal networks. Inability to obtain sufficient funds is one of the main constraints on firms' operations and growth, especially so in countries with weak financial markets and institutions. Financial services are especially important for the facilitation of international trade, where there is a need for various services and instruments to increase speed and certainty in payments across international borders and in different currencies. Insofar as these financial services have limited availability and are costly, as is the case in Rwanda, they become important constraints for the development of international trade.

5.3 ***In Rwanda, as in many other developing countries, the role of the finance sector in channeling resources to small firms and to finance productive opportunities in the rural sector has been considerably stifled.*** Financial institutions in developing countries tend to concentrate on short-term trade and related activities. Providing financial services to SMEs and particularly to producers in rural areas remains a considerable challenge. This reflects significant constraints on access finance: (i) lack of collateral; (ii) borrowers' inability to provide financial information of the standard required by banks; (iii) small size of loans requested which increases the unit cost of lending; and (iv) higher transaction costs inherent in administrative and risk-related costs. Administrative costs are high because of several factors including: the existence of long distances between financial institutions and customers, the limited number and dispersion of customers served by a financial institution which raises the intermediaries' transaction costs compounded by the poor state of infrastructure (roads, telecommunication, public transportation and electricity) in rural areas. As a result of the limited interventions of banks in the rural sector, most farmers and small entrepreneurs depend largely on micro financing and informal financial arrangements.

5.4 ***Private sector development will remain constrained and farmers will have difficulty increasing productivity, raising quality and diversifying in to new crops and products without access to suitable finance.*** Ambitious targets have been set for growth and poverty reduction based around strategies of raising productivity and quality of traditional agricultural products whilst stimulating diversification into a wider range of exportable products. This all requires that farmers and entrepreneurs have access to finance to participate in formal markets, invest in new plants, increase fertilizer usage, invest in equipment, training and so on. This section analyzes the constraints on access to trade and rural sector financing in Rwanda and highlights the problems of lack of information concerning available finance and lack of capacity in the rural sector to articulate appropriate business plans compounded by the lack of an effective land registry to support lending based on collateral. Whilst microfinance schemes are a useful mechanism to overcome some of these barriers they cannot provide the broad solution that is required to substantially raise the flow of funds into the rural area that is required in Rwanda. This can only be achieved through the widespread expansion of the formal financial sector. The two key recommendations are

- the government and the commercial banks should act to improve to flow of financial information.
- there is a need to strengthen the organization of cooperatives as financial entities and to raise capacity through training in the preparation and evaluation of business proposals.

KEY ISSUES FACING THE FINANCIAL SECTOR IN RWANDA

5.5 ***Considerable progress has been made in recent years in improving the health and stability of the banking sector.*** A number of performance measures capturing efficiency and profitability have seen positive movements (IMF, 2004). The liquidity ratio varies between 80 and 95 percent (maximum is 100 percent). Given this excess of liquidity, the central bank, which is in charge of regulating and supervising the banking system, intervenes to mop up some liquidity.[39] The solvency ratio for the banking sector is at 6 percent (maximum 10 percent). However, the ratio increases to 10 percent when the 2 commercial banks that have been recently privatized (BCR and BACAR) are excluded.

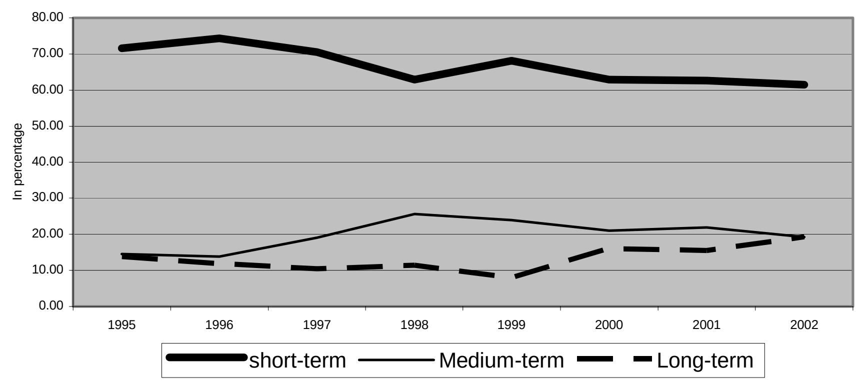
5.6 ***Despite these improvements, the banking sector remains fragile***. The importance of non-performing loans remains high although it has declined from 40 percent in 2002 to 27 percent in 2004. The financial system is little diversified and relatively shallow as shown by a financial deepening ratio (measured by M2 over GDP) of 15 percent for the period 1995-2003, which compares with an average ratio of 25 percent for Sub-Saharan Africa. Banks' activities are concentrated in Kigali and in a few specific sectors such as trade, tourism, property development and manufacturing (IMF, 2004).

5.7 ***Banks are focused on short-term trade financing to established customers and make only limited credit available to finance medium and long-term investments.*** Rwanda's financial system is dominated by a small number of commercial banks. As in many other countries, the banking system is primarily geared to financing short-term trade and trade-related activities. Banks have been largely unsuccessful in providing long-term credit for investment purposes. Figure 5.1 shows that on average during the period 1995-2003, medium-and long-term credit represented only 21 percent and 14 percent of total credit.[40] Banks provide few funds for longer-term investments and the majority of deposits are short-term (1-3 months) reflecting low returns on deposits, a risky business environment and the relatively low income of most depositors.

[39] FSAP will look into the issue of excess of liquidity and its implications for the economy of Rwanda
[40] Data for the first 6 months of 2004 suggest an increase in the proportion of medium term and long-term credit as a share of total credit, to around 27 and 20 percent respectively. It will be useful to monitor these changes and see if they are sustained. Even so, substantial increases in long-term credit will be required to finance the development of the rural sector in Rwanda.

Trade financing represents a large share of the total credit market (21 percent). While large firms have little difficulty accessing credit, small scale importers and exporters appear to be more credit constrained. Banks also finance few trade transactions due to bankers' lack of familiarity with trade operations and unavailability of appropriate financial instruments.

Figure 5.1:Distribution of credits by maturity (%)



5.8 ***There is a critical lack of financial intermediation in the rural sector.*** Only 2.3 percent of bank credit is used to finance activities in the agricultural sector (which employs 90 percent of the population and accounts for 40.5 percent of GDP). This compares with about 10 percent in Kenya and 14 percent in Tanzania (IMF, 2004). Banks are not established in rural areas and so the rural population has very limited access to the services of commercial banks. At the same time this reflects but also sustains a rural sector dominated by subsistence and informal activities. The shift towards monetization and participation in markets in rural areas, that is necessary for long-term development goals to be meet, will depend crucially on financial institutions increasing their activities in rural areas.

FINANCE FOR TRADITIONAL SECTORS

5.9 ***Coffee processors and exporters as well as tea growers in general have access to trade finance. However, small coffee farmers and farmers seeking to develop new products are typically credit constrained.*** Coffee processors and exporters do not have problems of accessing financing as they have collateral and their activities primarily require short-term financing (less than 6 months). Some of the exporters who have foreign shareholders such as RWACOF receive pre-financing from the holding company. Coffee growers receive the bulk of their inputs from OCIR-CAFÉ. Inputs are subsidized under STABEX funding as described in Box 1. The funds also cover the cost of transport and handling. Until 2006, the production of coffee will involve three main steps: (i) OCIR-CAFÉ will be importing fertilizers, insecticides, pruning equipment and sprayers with STABEX funds; (ii) OCIR-CAFÉ will be distributing the inputs to farmers; and (iii) after the sale of the crop, farmers repay OCIR-CAFÉ. OCIR-CAFÉ has currently 23 million Euros from STABEX to finance inputs. Though this amount is considerable, individual coffee farmers could face a constraint of financing their inputs in the next few years, as OCIR Café could run out of STABEX funds. However, since January 2005, a fee equivalent to RWF 11/kg[41] is being charged to all producers and exporters of coffee to finance an input fund. This fund will continue supporting small coffee farmers in acquiring inputs after the expiration of the STABEX fund in August 2006, although the precise modalities for the distribution of fertilizers to farmers through this input fund have yet to be defined. OCIR-CAFÉ offers two mechanisms through which small coffee growers and processors finance their operations without having to offer collateral. First, OCIR-Café provides a guarantee to coffee cooperatives who wish to borrow from commercial banks, BRD and UBPR. Second, OCIR-CAFÉ provides inputs (fertilizers) to

[41] RWF 7 /kg fee is charged to producers while RWF 4/kg fee is paid by exporters or factory owners

smallholder farmers on credit and at subsidized rates. Small coffee producers need finance to be able to invest in higher quality, to raise productivity and to be able to specialize in cash crop production. The BRD (described in more detail below), which is responsible for increasing the funding of agricultural activities in rural areas, is currently funding farmers who are organized into cooperatives. However, individual coffee producers are highly constrained in their access to credit because they lack formally registered assets of the type that banks accept as collateral in their normal operations.

BOX 5.1:STABEX FUNDS

STABEX funds originate from compensations on coffee and tea exports to European Union (EU) countries for price fluctuations. This is under the EU and Africa-Pacific and Caribbean countries trade protocols. Under *Cadre d'Obligation Mutuelle* (COM-1996-99), Rwanda received a little more than 20 million Euros that were disbursed. These funds were used to procure fertilizers and pesticides that were distributed to coffee farmers and financed other activities. The total amount available under the current STABEX is 23 million Euros. The coffee STABEX program has three major components: (i) support to coffee production; (ii) support to coffee processing; and (iii) support to coffee marketing. The new arrangement introduced by STABEX has brought a few changes. For instance, the system of distributing fertilizers to farmers on credit to be recovered from their coffee sales has now been suspended. Those with capacity, purchase the inputs on cash basis. Pesticides however are issued free but with a component being recovered. STABEX expires in 2006 and has been replaced by a new instrument FLEX.

5.10 ***Financing of tea will be strongly affected by privatization.*** In the tea sector the structure of production has three main elements: (i) *block industrials* or tea estates owned by OCIR-THÉ, which finances all activities of the estate; (ii) tea cooperatives who can obtain finance from the sale of green leaves to OCIR-THÉ and by borrowing from commercial banks supported by a guarantee from OCIR-THÉ.[42] Cooperatives can also use direct financing from OCIR-THÉ in the form of agricultural inputs which are subsequently paid for through the sale of green leaves; and (iii) Thé *villageois* or associations. Each member of the association has his/her own plantation. However, all plantations are set in the same area. Individual earnings depend on the quantity of green leaves harvested from the individual's plantation. These are financed along the same line as cooperatives. The STABEX fund has been providing funds in a similar way to the coffee sector. The ongoing process to privatize the tea estates will clearly change the way that the estates are financed. After the privatization, block industrials, tea cooperatives and the Thé villageois will be run as commercial entities. An input fund similar to that set up by OCIR-CAFÉ will be established. Farmers and exporters will pay a fee that will be used to finance fertilizers for farmers and support the operation of OCIR-THE, whose future role will be to act as a regulatory body for the Tea sector, conduct research into new, more productive and high quality Tea, provide support to extension systems, carry out market research and other functions to support sustained growth of the industry.

5.11 ***Coffee and tea farmers have access to finance because of the existence of a clear structure within the sector.*** Producers of other actual and potential exports such as skins and hides, flowers, fruits and vegetables do not have easy access to finance, in part because of their lack of organization. Pyrethrum flowers are financed through short-term credits from *Societe de Pyrethe au Rwanda (*SOPYRWA*)*, a private company that buys the flowers from farmers and processes them for export.

FINANCING TRADE

5.12 ***High costs and cumbersome procedures lead to small firms to prefer direct financing of imports***. Exports and imports require specialized banking services, such as letters of credits (LCs), confirmation of LCs, quick and low cost facilities for international transfers of funds, currency exchange and a variety of guaranties. Rwandan banks provide limited services due to their small size

[42] This is mainly investment capital to buy equipment (vehicles, office furniture and construction works)

and lack of international expertise. These services are concentrated on large firms. Importers, particularly small entrepreneurs, prefer direct financing[43] whereas large entrepreneurs finance imports through LCs and bank transfers. Of imports financed through the use of financial instruments, 78 percent are financed through bank transfers while 20 percent are financed with LCs (NBR), Small firms explain that the low usage of LCs reflects: (i) high transaction fees imposed by banks; (ii) the required paper work can be cumbersome as exporters must show all original documents with respect to the contract;[44] (iii) extra cost and delays if there is a modification to the contract**.**

5.13 ***Regional export guarantee and insurance schemes have been created but are not used by Rwandan companies.*** Rwanda does not have an entity that guarantees export credits. However, a World Bank approved agency, called African Trade Insurance Agency (ATI) has been created to help encourage and develop trade, investments and other productive activities in Africa by offering guarantees against risks in business transactions such as losses resulting from the occurrence of war and civil disturbance. ATI is currently located in Nairobi and its membership is open to all African nations. Seven countries including Burundi, Kenya, Malawi, Rwanda, Tanzania, Uganda and Zambia participated initially in the institution. To date, no Rwandan enterprise has been insured by ATI.

5.14 The Regional Trade Facilitation Project and Trade Finance Insurance Scheme (RTFP) was initiated by COMESA, with the support of the World Bank, with a view to facilitating access to, and improving the terms of trade finance for imports and exports[45]. This project provides credits to participating countries to back up insurance policies through offshore trust accounts, which would be accessible to private insurers to pay valid claims. The maximum period of insurance is three years, plus two years of pre-shipment cover. The expected range of premium rates oscillates from 0.4 percent to 2.5 percent per annum, depending on the length of credit involved. The premium covers both political risks and commercial risks.

5.15 ***The plan to fine exporters for failure to repatriate earnings should be reviewed.*** Export receipts must be repatriated to Rwanda within 3 months from the date the goods are exported. The receipts must be sold on the domestic foreign exchange market or kept in foreign currency accounts maintained in licensed commercial banks. The Central Bank exercises surveillance of export proceeds through information provided by the commercial banks that issue export certificates. The commercial banks must declare to the Central Bank export proceeds registered on a daily basis. Although the Central Bank does not currently impose any fee in case of delay in repatriation, a fee equivalent to 1 percent of the value of the transaction is being considered for failures to repatriate receipts within 3 months. There is no clear rationale for this measure. At the rate of interest on loans, it is in the exporters' interest to repatriate their export revenue as early as possible. The most likely reason for failure to repatriate export earnings is delay in payment by the customer. In addition, this requirement cannot and will not prevent those that have interest in sending funds abroad from doing so (there are many ways to send funds abroad; declaring export values and failing to repatriate export revenue is not one of them). Hence, while double punishing exporters, these regulations will also be a costly burden on the commercial banks to monitor and report transactions and to the Central Bank to implement.

5.16 ***Large traders have relatively easy access to finance for trade activities but access of SMEs to credit to finance trade is constrained***. Large enterprises tend to have strong capacity to promptly repay loans and can present tangible assets for collateral. Banks in turn consider export/import activities to be favorable short-term activities yielding large, low-risk and quick turnovers. Local

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[43] This means that exporters withdraw cash from their accounts and go to purchase imports overseas
[44] The failure to show one document can lead to significant delays in the process
[45] RTFP's total budget is $110 million. Rwanda's component of the budget is $7 million. The project runs from June 2001 through June 2011.

traders finance their activities using ownership' equity and commercial loans, while foreign-owned export/import firms can access not only commercial lending, but also can often obtain advances from their overseas suppliers. These large firms have access to short-term bank loans with negotiable interest rates around 12.5 percent. Well-established SMEs tend to finance trade activities using either owners' personal equity or bank loans. Newer SMEs have difficulties in financing their trade activities for the following reasons: high nominal interest rates, lack of training of entrepreneurs, difficulties in the search process of getting a loan, poor registry system, absence of adequate credit assessment tools and lack of information and awareness of available schemes.

FINANCIAL INTERMEDIATION IN RURAL AREAS

5.17 ***Commercial banks have very little engagement in rural areas.*** This reflects, in part, the absence of standard elements upon which lending decisions are made. Individuals, enterprises and cooperatives lack formally registered assets which a bank can accept as collateral. There is a lack of organization and capacity to develop and define standard business plans and there are severe difficulties of communication. In response to this environment for lending certain specialized institutions have been created or strengthened to help channel financial resources towards rural activities and the financing of SMEs. These institutions include BRD, UBPR and its network of 148 SCCOs, the CDF and the microfinance institutions (MFIs).

5.18 ***BRD is responsible for increasing the flow of funds to rural areas***. Given the reluctance of commercial banks to finance rural activities and the lack of a specialized bank to finance agriculture, the GOR has revamped BRD, a public limited liability company initially created in 1967 to provide long-term financing of productive investments that create employment and value added. BRD is mandated to provide credits to agriculture, agro-industrial activities and long-term credits to viable firms. BRD is currently running the rural sector support project financing agricultural and animal husbandry in the rural sector. BRD finances cooperatives and associations for loans that are more than $10,000. The Government has recently injected BRD with RWF 3 billions to finance long-term development and address the lack of infrastructure in the rural sector.

5.19 ***Despite the importance of agriculture in rural areas, most of BRD lending goes to other sectors.*** The priority given to the development of the agricultural sector as means to reduce poverty should be translated in terms of the funds that BRD is channeling towards financing rural activities. However, agriculture, received the lowest share of loans relative to other sectors between 1995 and 2000, receiving only 19 percent of total BRD lending, whilst 51 percent of lending went to the industrial sector and 30 percent to the tertiary sector. The proportion of funds going to the primary sector is substantially below the level that has been set as an objective by BRD. In 2001 it was intended that 44 percent of lending would go to the primary sector.

5.20 ***BRD is not reaching most cooperatives or small farmers.*** BRD provides credits to cooperatives and associations. Since there are only 40 cooperatives, only a limited number of small farmers can be reached through these intermediaries. Further, among the existing cooperatives, only 10 are fully operational and so most of the cooperatives are not receiving credits from BRD. Membership of a cooperative and a loan in excess of $10,000 is often not appropriate for low-income individual farmers who require small size loans. These small farmers prefer micro-finance. However, this is typically not suitable for funding longer-term development and expansion plans by farmers. Interest rates for this form of finance are very high (typically over 2.5 percent per month) because of the small size of the loans and the related high administrative cost.

5.21 ***The approach of BRD to lending is not commensurate with conditions in the rural area.*** BRD as well as commercial banks are cautious in lending to the rural sector because during the period

1996-2000, most banks issued loans without corresponding collaterals and against poorly evaluated projects. This contributed to the high level of non-performing loans. As a result of this experience, banks including BRD are tending to lend to borrowers who can demonstrate creditworthiness according to standard banking measures and to those who possess documented collateral. Experience elsewhere suggests that approaches to lending have to be adjusted when dealing with small farmers in rural areas who lack formally registered assets that can be used as collateral. At present, bankers including staff from BRD have limited capacity to conduct project appraisal and financial evaluation relevant to the context of poor farmers in rural areas.

5.22 ***The UBPR and its networks have had some success in mobilizing rural savings but these funds are not all reinvested in rural activities.*** UBPR has a network of 148 SCCOs that operate as banks across Rwanda and finance rural activities. SCCOs accept deposits and make loans to members. The outreach of UBPR and its networks reached more than 623,000 individuals at the end of 2003. One of the key features of the SCCOs is that they provide loans to cooperatives without requiring any collateral, although collateral is required for lending to an individual borrower. A loan recipient is required to fulfill the following 3 criteria: (i) be a member for at least 3 months; (ii) present a bankable project; and (iii) show the capacity to pay back the loan. Whilst UBPR and its networks play a key role in financing rural activities and SMEs only 11.3 percent of UBPR credits were used to finance agriculture in 2003 (Table 5.1). As of December 31, 2003, the value of deposits was RWF 20.1 billion, yet the value of loans was only RWF 11.9 billion. UBPR lent some of this excess to the banking system at a rate of 10-12 percent. Thus, UBPR is a net lender to the rest of the financial sector, whilst at the same time the rural sector is still constrained in access to finance. The low level of rural financing undertaken by UBPR is more a reflection of the limited absorptive capacity of the real sector, due to the lack of bankable projects, and the lack of organized cooperatives. Finally, it is worth noting that out of the 148 SCCOs only one is specialized in funding women's activities.

Table 5.1: Breakdown of Credits provided by UBPR end 2003 (%)

Agriculture	11.3
Wage earners other than teachers	34.5
Traders	21.9
Teachers	12.6
Handicrafts	7.4
Cooperatives and firms	4.7
Public sector	7.6
Source:UPBR, 2003	

5.23 ***The Community Development Fund is playing an important role in financing rural infrastructure and cooperatives***. CDF is funded from the government's annual budget (5 percent). This scheme is also supported by donors. The main activity of CDF is to finance through grants local government units on the basis of the presentation of project proposals. The projects are of two categories:

- *Public infrastructure projects*: These include rural roads, water networks, communal grain storage facilities, administration infrastructure, health centers, and development of Marshlands (drainage) for communal use; and
- *Projects submitted by local government units (Districts) but utilized exclusively by local based cooperatives.* These include the financing of coffee washing stations, gypsum production in Gisenyi (Kayove District), three food stores in Kigali- Ngali and Byumba provinces, honey production in Gitarama province, sales outlets (*Comptoires de vente*) in Gikongoro and Byumba provinces. The cost of these projects range from US $30,000 and $40,000. The cooperatives provide 10 percent of the starting cost through their districts and CDF finances the remaining 90 percent. The products produced by these cooperatives are traded in the whole country with coffee being exported.

5.24 ***MFIs can play an important role in providing financial products to the poor but cannot by themselves fill the gap in financial services provision.*** Rwanda has recently seen a flowering of decentralized financial institutions, which appear to have had some success in fostering micro-enterprise development. A number of these institutions have received assistance from donors in financing start-up costs. The main advantages of the MFIs include that they accept certain risks associated with informal activities in rural sectors that other financial institutions do not contemplate, they offer services that are more appropriate to the poorest members of society who do not have access to the formal financial system and they provide assistance to newly established enterprises that have difficulty to access credit from the formal financial sector. According to USAID, there are about 65 MFIs in Rwanda with an outreach of 200,000 clients. The value of their savings is estimated at more than RWF 1,5 million and the value of loans to less than RWF 3 million (Belgian Bankers Academy, 2004). Some of the constraints that the MFIs face are limited start-up resources, refinancing problems, lack of management skills, and bad loans. MFIs charge very high interest rates (over 2.5 percent per month) because of the small size of the loans, high administration costs and the high risk inherent to the loans. Experience shows that although MFIs can play an important role, a widening of the provision of financial services provision by private sector institutions in the formal financial sector, primarily commercial banks, is necessary to substantially bridge the gap in the provision of financial services to the poor.[46]

5.25 ***The rapid growth of MFIs has taken place with a lack of coordination and control.*** In response, the ongoing effort to place MFIs under the supervision of the BNR will help to gradually integrate them into the formal financial sector and increase accessibility to their resources. This integration will help MFIs to benefit from training with respect to the assessment of loans and learn how to become profitable and therefore sustainable. It is advisable that MFIs put in place a comprehensive shared system to track debt by all customers. In pursuing the task of providing a sustainable and coordinated MFI sector Rwanda could usefully receive technical assistance.

5.26 ***There is a need for more coordination with donor funded lending activities.*** There are a number of donor-funded projects, which include components that seek to improve the provision of finance. There are also a number of projects, such as ADAR, which are working to assist entrepreneurs in developing and presenting business plans to financial institutions. As will be argued below, the lack of projects that banks are willing to finance suggests that efforts in the areas of project identification, developing business plans and linking entrepreneurs to appropriate funding sources need to be intensified. In addressing these problems, there is need to coordinate these various activities to ensure common approaches and advice, avoid duplication and ensure maximum impact.

KEY CONSTRAINTS ON ACCESS TO FINANCE FOR TRADE AND RURAL DEVELOPMENT

5.27 ***Entrepreneurs in Rwanda face high nominal interest rates. Actions to increase information, greater legal clarity regarding ownership of assets, more intense competition and a more certain regulatory environment will reduce interest rate spreads.*** High interest rate spreads, relative to OECD countries, are a common feature in developing countries. The most important factors leading to high spreads are deficiencies in the legal and judicial systems (fraud and insecurity) and lack of effective competition amongst banks. In order to promote financial intermediation and reduce interest rate spreads as well as widen access to credit the following are often prescribed:[47] (i) provision of information sharing among all finance providers (commercial banks and microfinance institutions).

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[46] See, for example, 'Financial Sector Development: A Pre-Requisite for Growth and Poverty Reduction?', DFID Briefing Note 020 (June 2004).
[47] See, for example, Beck et al. (2004) for a study of Kenya.

This requires the creation of a credit registry on debtors, which enable lenders to distinguish bad borrowers from good borrowers. The existence of reliable information on potential borrowers reduces the credit risk for banks, lowering the number of NPLs, which can decrease interest rate spreads. This information sharing mechanism among financial institutions will help reduce banking segmentation and increase competition within the financial institutions; (ii) reduction of deficiencies in the legal and institutional frameworks will help reduce credit risk for banks and create mobility for borrowers among lenders. This policy should include inter alia: the creation of a property registry and/or simplification of registry procedures, simplification and enforcement of debt collection processes, institutional reform and training of judges[48]; (iii) a lower level of market segmentation due to a limited number of large banks. This policy will create more competition among all financial institutions and reduce high interest rate spreads that large banks tend to charge. This suggests that the Central Bank should effectively play its role as regulator and supervisor, to improve the banking system and foster competition; and (iv) elimination of uncertainty in the policy environment with respect to the control and regulation of interest rates and related bank fees. This policy will help reduce the government's intervention in the financial market with the purpose of controlling interest rates and related bank fees, so that changes with respect to these matters should be market based. The role of the government should be to bring about transparency in the financial system. These factors are likely to be equally pertinent for Rwanda.

5.28 ***Lack of formally registered collateral, such as land and property, which can be used as security when accessing credit from financial institutions, is a major constraint on borrowing.*** One of the key arguments banks advance as to why they reject loan requests to finance rural activities is the inability of borrowers to offer collateral in an appropriate form and where the opportunity for legal enforcement is clear. A legal framework that clearly establishes the rights, responsibilities and liabilities of the parties to financial transactions and which provides a means to enforce legal obligations and claims efficiently is a key ingredient of a stable and robust financial system. Rwanda requires a legal framework to identify, register and protect property rights. An important issue is that the very fragmented structure of land allocation in Rwanda, average plot size per household or farmer is very small, mitigates against the more effective financing of rural activities. A new bill on land reform has been prepared and recently discussed and amended by the lower house of the parliament. The amended Bill will enable landowners to have land titles that may be used as collateral but also seeks to encourage the emergence of larger, more economic plots of land which, when effectively registered, can form the basis for providing the sort of collateral that banks require to raise lending to rural areas. Implementation of this land reform will be an important factor determining whether the lending that is necessary to transform the rural sector will materialize. It should be supported and carefully monitored by the donor community**.**

5.29 ***The registration of assets that can be used as collateral is slow and inefficient.*** Unnecessary delays and processes in registering collaterals can prevent banks from lending to firms, as they cannot quickly obtain documents that entitle them the propriety. The delays may be due to the interpretation of the law that should be applied to the title, the dealing with the lengthy procedure in registering the collateral, the determination of the value of the collateral all being a reflection of lack of human resource capacity in the public and civil service. This process, in return, causes firms to forego engaging in new business prospects or to miss time-sensitive windows of opportunity because of the time banks take to respond to requests for loans. However, the poor land registry system and slow response in registering collateral could be solved with the implementation of LARIS, a project for a computerized database information system and an electronic archive of all information relating to land administration, registration and utilization. If effectively put into place, LARIS could provide the

[48] Effective implementation of the Land Records Information System (LARIS) discussed below could remedy this issue

following benefits: (i) the electronic system could be used by the host Ministry and its agencies for land allocation and usage and planning, and administration purposes; (ii) be accessible to the public, who can obtain information on registered land and land titles, and monitor the status of applications for land registration and titling; (iii) help in the establishment of a zoning plan, which could be used by the government; and (iv) provide information which could be used to settle land ownership disputes.

5.30 ***There is lack of information and awareness of available financing schemes.*** For instance, one company will borrow from BRD at 16 percent for 8 years while the IFAD project in the Ministry of Agriculture (MINAGRI) can offer a similar loan at 8 percent for 7 years. Rwanda has had a long and productive relationship with IFAD, which has provided funding for projects to develop small hold farming and micro enterprises in the poor areas. IFAD is currently financing the Rural Small & Micro Enterprises Promotion Project (PPPMER) in Rwanda. PPPMER has 2 phases: PPPMER1 and PPPMER2. PPPMER1, which runs from 1998 through June 2005, aims at promoting non-agricultural rural activities such as crafts, agro-processing, carpentry, training and access to micro credits of three provinces. PPPMER2, which runs from July 2004 to June 2011, covers the same activities throughout the country. IFAD is also financing cash crop projects that are being implemented by the Ministry of Commerce (MINICOM) and whose objectives are to boost coffee and tea production. IFAD has funded livestock development and agricultural projects in several provinces. IFAD is also financing a project aimed at the development of community resources and infrastructure in Umutara Province with a loan of US$12 million given to the GOR on highly concessional terms.[49] Given the importance of donor's interventions and particularly IFAD, there is a need for greater coordination in the advice and information provided to potential borrowers.

5.31 ***Weak demand of credits reflects few bankable projects compounded by lack of familiarity of bankers with risk assessment procedures relevant for rural lending.*** The rural sector has limited absorption capacity reflected in a general lack of ability to formulate bankable projects. Hence, the issue is less one of the supply of loanable funds, since BNR often intervenes through market open operations to mop-up excess liquidity, and more a problem of the inability of the private sector to formulate medium and long-run bankable projects. This is compounded by a lack of familiarity of bankers with trade transactions and approaches to risk assessment that are relevant for rural lending and lending to SMEs in a least developed country.

CONCLUSIONS AND RECOMMENDATIONS

5.32 ***Improving access to finance is a crucial task in Rwanda***. Increasing the participation of those living in rural areas in formal markets and shifting away from subsistence agriculture will be necessary to significantly reduce poverty. However, whilst this step offers the prospect of higher returns and incomes it involves greater risks. If families and individuals do not have access to appropriate mechanisms to mediate such risks then they are unlikely to move into, or increase, the production of commercial crops. Better access to credit will also be necessary if farmers are to invest in better quality plants and higher productivity and households in rural areas are to diversify into activities such as handicrafts and other non-arm activities. This transformation of the rural sector will further depend on the ability of producers to access overseas markets, both for the sale of the products that they produce and to the inputs they need. Lack of access to trade finance will limit such interactions with external markets.

5.33 This suggests that ***the finance sector and its interaction with small enterprises and the rural sector should be seen and treated as a strategic development issue.*** In this context it would be useful

[49] This project area accounts for almost 180 000 persons, or 42 000 households, who have been provided with plots of land and community housing in Mutara Municipality and three Districts

for the government and the development partners to define a plan that establishes broad objectives and targets for increasing financial intermediation in Rwanda. This could then act as an umbrella under which the different projects that are currently being planned and implemented could be coordinated and assessed in terms of their ability to contribute to the objectives set under the plan. The key recommendation of this chapter is the need to support capacity building in the private sector by addressing the information problem that constrains access to suitable finance, to facilitate the ability of rural producers and small firms to define business plans, to improve the situation with regard to registering of collateral and to encourage the development of better credit delivery methodologies by lenders that reflect the situation in the rural sector and which reduce transaction costs. More specifically:

5.34 **In the short term:** (i) the government, acting together with the commercial banks, should act to improve the availability and dissemination of information on financing schemes to allow exporters and producers to locate suitable financing mechanisms; and (ii) the government needs to take steps to strengthen the organization and extend the role of cooperatives to become effective financial entities able to prepare bankable projects (iii) to deal with the lack of capacity in the business, financial and the rural sectors that constrains intermediation, the government, in conjunction with the private sector and supported by donors, should coordinate the establishment of sustainable schemes to train exporters, producers, bankers and cooperatives on how to prepare and evaluate project lending proposals; and (iv) further study is required to assess the viability of new financial instruments that will make it possible for currently excluded exporters and producers to access suitable credit from local financial institutions.

5.35 **In the long term:** to cope with the inadequacy of resources for medium and long term financing, new approaches should be investigated including: (i) introduction of appropriate new financial products by commercial banks, such as certificates of deposit (CD), to attract medium and long term deposits; and (ii) creation of a stock market that can provide long term funding to larger businesses, although the broad impact is likely to be limited, regional listing may be a more appropriate option for larger Rwandan businesses. A National Savings Fund is currently being planned. Support of this scheme could be an effective tool of mobilizing long-term funds.

Chapter 6 The Business Environment, Private Sector Development and Energy

INTRODUCTION

6.1 The previous sections of this report have focused on the main factors that raise trade costs in Rwanda and then the key constraints on rural development and the ability of farmers to shift into commercial activities, which provides a route out of poverty. Whilst stimulating the traditional export sectors of coffee, tea and tourism must lie at the heart of the strategy to reduce poverty, such an approach must ultimately be supported by a flourishing of non-traditional agricultural sectors and non-farm activities to sustain growth and to diversify the economy over the long-term and to reduce reliance on crops whose prices can be subject to substantial fluctuations. The chapter discusses the measures that will be necessary to provide a climate that encourages investment and stimulates private sector activity and especially the growth of SMEs. The first part of the chapter looks at the legal framework for business in Rwanda and shows that whilst considerable reforms have been implemented, there are still a number of crucial areas where laws need to be modernized and updated. Of particular importance are the rules governing land ownership. Equally important is that effective and predictable implementation of the laws which govern the business environment needs to be achieved through strengthening of the judiciary. The second part of the chapter looks in detail at the energy sector in Rwanda. Access to reliable modern energy supplies, especially electricity, will be crucial in governing the extent to which new higher-value added activities are able to emerge. Access to energy is also a key factor explaining the propensity to be poor.

THE BUSINESS CLIMATE AND PRIVATE SECTOR DEVELOPMENT

6.2 ***Increased foreign investment and expansion of the SME sector are crucial to growth and poverty reduction***. The growth strategy defined in Rwanda's Poverty Reduction Strategy paper and Vision 2020 points out the importance of the private sector for income generation and employment as one of the 6 priority areas for poverty alleviation. A vibrant private sector buttressed by a transparent and supportive regulatory climate is crucial to increased exports and to sustained growth. Within this the ability to attract foreign investment is crucial, not only as a source of investment and activity but also as a conduit for the transfer of technology and techniques. A range of studies have shown that foreign firms tend to be more productive, bring and diffuse management skills, invest more heavily in infrastructure and in the training and the health of their workers and participate more in the global economy. At the same time it is also essential that domestic investment and productive capacity expand. The current level of development in Rwanda dictates that the growth of private activity must arise through the establishment and growth of small and medium sized enterprises.

6.3 ***Considerable advances have been made in reforming the business environment and promoting a healthier private sector, however in order to create a climate that is conducive to investment and strong competition, the legal framework of Rwanda needs further strengthening***. This report assesses the investment climate and the business environment of Rwanda with focus on the legal, policy, and institutional factors directly affecting current business operations of SME and considers the reforms needed for improvement in order to accelerate and expand private investment in Rwanda. Section 1 reviews the legal framework and outlines main areas of reforms and section 2 focuses on private investments, privatization of parastatal companies as the main vehicle for FDI attraction in Rwanda and appraises the costs of doing business in Rwanda. The third and fourth sections present an overview of the private sector and evaluate the role of SME in poverty reduction. Section 5 summarizes the main findings and recommendations that can lead to a conducive and attractive investment climate and thereby improving Rwanda international competitiveness.

PRIVATE SECTOR DEVELOPMENT

6.4 ***Whilst the privatisation strategy has been successful in certain sectors it has not progressed as well in key sectors such as tea.*** Rwanda had been a centralised economy with a number of parastatal companies involved in all sectors of the economy. Privatization is a key vehicle for liberalising the economy in Rwanda. The privatisation strategy has identified 77 state owned companies to be sold. These companies operate in all sectors of the economy, agro-business, banks and financial services, mining, hotels and tourism. A number of key enterprises, including those in the tea sector, remain to be privatized. A key issue that Rwanda must now confront is whether, in the post privatisation climate, there is a sufficiently competitive environment to ensure efficiency and that efficiency gains are passed onto consumers. For utilities, the regulatory authority will have responsibility for encouraging private investment, providing guidance on granting licenses and, maintaining and promoting effective competition by ensuring compliance to laws and regulations relating to water, electricity, gas and telecommunications.

6.5 ***Private sector development has been identified as a key issue in the Poverty Reduction Strategy Paper.*** An important development in this context has been the World Bank funded Competitiveness and Enterprise Development Project (CEDP), which has been in operation for three and half years. The overall project objective was to establish an enabling environment for growth and development of the private sector that would help reduce poverty in Rwanda, focusing on: (i) streamlining the business environment; (ii) reducing the cost and increasing the efficiency of telecommunications, water and electricity utilities, and tea industry; and (iii) improving access to financial & support services for local entrepreneurs. Whilst this project has made a significant contribution, as will be reflected below, there is still much more to be done to provide a facilitating environment that encourages Rwandan and foreign entrepreneurs to invest in Rwanda to take advantage of opportunities in both domestic and overseas markets to sell products and services produced in Rwanda.

6.6 ***FDI inflows are currently very small; there is considerable scope for increased foreign investment.*** FDI inflows into Rwanda have generally been small, averaging $10 million annually during the pre-war period of 1985-1994 and $6 million per annum between 2000 and 2003. In contrast, average inflows into Tanzania over the past 4 years have been $309 million and Uganda has attracted average annual inflows of $259 million. If Rwanda were to achieve just 50 per cent of the average FDI inflow *per capita* achieved by Uganda and Tanzania then the amount of FDI into Rwanda would increase more than six-fold.[50] Such an increase would have a profound impact on the Rwandan economy and on the ability to meet growth and poverty reduction targets.[51]

KEY ISSUES DEFINING THE BUSINESS CLIMATE

6.7 ***Rwanda has adopted an investment code consistent with the norms of a market economy***. Rwanda is largely open to FDI, an Investment Code in line with that of a liberal market economy was adopted in 1998 and a new investment promotion agency, subsequently given the remit of export

[50] It is worth noting that in the early 1990s both Uganda and Tanzania struggled to attract significant FDI inflows. In the first 3 years of the 1990s Rwanda attracted more FDI than these two countries combined. Subsequently, however, both countries have managed to substantially increase their attractiveness to international investors.

[51] Initial data for 2004 suggest a substantial increase in FDI flows. In part, this has been fuelled by relatively large-scale privatisations, including a tea factory, an insurance company and a Bank. However, these data reflect investors' commitments rather than actual FDI and are not directly comparable with the data presented in the text for previous years.

promotion as the Rwanda Investment and Export Promotion Agency (RIEPA), was created as a "One-Stop-Center" to assist all potential investors and to deliver all required approvals, certificates and work permits for new investments projects. FDI is able to enter freely in all sectors of the economy with no exception and no de facto restriction, foreign investors being treated on a par basis with nationals. The investment code provides that the rights of a registered investment may not be expropriated, except in accordance with the Constitution of Rwanda, and that adequate and fair compensation should be paid in a convertible currency, within 12 months of any expropriation. In addition, the investment code permits international arbitration to settle disputes, although Rwanda is a member of the Multilateral Investment Guarantee Agency and a party to the International Centre for the Settlement of Investment Disputes, Rwanda is not a signatory to the New York Convention of 1959 on the Recognition and Enforcement of Foreign Arbitral Awards, this could create substantial legal difficulties for the enforcement in Rwanda of foreign arbitral awards. The investment code provides for a range of incentives that are broadly similar to those in neighboring countries. Whilst corruption is not widespread and overbearing, the private sector reports scope for further improvements in removing unofficial payments and procedures.

6.8 ***However, Rwanda does not score well in international investment scorecards.*** International comparisons by agencies such as the Wall Street Journal and the Heritage Foundation rank Rwanda poorly in comparison to its main competitors. For example, in the Index of Economic Freedom whereas Uganda is ranked 74th, Kenya 93rd and Tanzania 109th, Rwanda lags behind with a rank of 121st out of 161 countries. Thus whilst the basic legal framework for investment is in place there is still much that can be done to improve the investment climate whilst at the same time RIEPA must act to positively influence investors perceptions of Rwanda, which may be subject to a degree of inertia. In tackling the latter task, RIEPA should note that many studies have stressed the importance of cultivating the existing FDI base as a crucial way of influencing external perceptions and new investors. We now proceed to discuss key issues in the regulatory framework that affects investment in Rwanda where further improvements can be made.

6.9 ***Whilst significant reform to the taxation of business has been enacted, further training is required to ensure consistent application of the new laws.*** Significant business tax reform has been implemented and has created a competitive tax regime comparable to that in other countries in the region. Administration of the tax regime has been supported by the creation of a large taxpayers department in the Rwanda Revenue Authority. Some businesses indicate problems arising from lack of consistent interpretation and application of tax laws by officials. This suggests the need for continuing training and upgrading of the quality of those charged with implementing the country's tax laws.

6.10 ***The complex and rigid rules on expatriate workers may dampen interest in investment.*** Whilst a new labour code was adopted in 2000, which simplified employment regulations by introducing more flexible rules regarding hiring, firing and conditions of employment, considerable difficulties remain in dismissing workers. Rwandan workers have the option to sue their previous employers and a sympathetic judiciary appears to routinely award severance benefits to dismissed workers. This warrants schemes to strengthen and build the capacity of the judiciary.

6.11 ***One other area of particular concern is the cumbersome set of requirements related to securing employment permits for foreign investors.*** Under the investment code of 1998 a business holding a registered certificate is entitled to recruit three expatriate workers, all additional expatriate employees must apply for employment permits which are granted at the discretion of RIEPA. Such rigid requirements are a serious cause of concern to the investors and the business community at large and may well discourage new investment since no consistent standards are applied to work permit applications, creating uncertainty and additional risk to their operations in Rwanda. Under the new draft investment code this issue is not resolved, although a new provision of the code requires a minimum deposit of $500000 on a fixed deposit account in Rwanda for obtaining a permanent residence status thereby confusing a little more an already complex set of rules and regulations.

6.12 ***Investors face a very complicated system of land ownership and registration, which can lead to very long delays.*** Under a dual system all land ownership is in principle vested to the government and should be held in perpetuity for and on behalf of the people of Rwanda while at the same time a vibrant private real estate market, largely developed during colonial times, coexists, mainly in urban areas. The supply of privately held urban land and agricultural land is therefore scarce, and although land can be acquired by foreign and local investors, this can only occur when a title exists and is duly registered in the Land Registry. For historical reasons due to tragic recent events, Rwanda suffers from a shortage of land surveyors and competent officials within the Ministry of Land both at the regional and municipal Land Registry. Land surveying and land titling can be unusually time-consuming making it difficult to acquire land in Rwanda: once a title of a property has been proved by the Land and Deeds Registrar, the actual sale and transfer of property must be formalized exclusively by a Notary public, a lawyer and the civil officer in charge of all legal operations. This multiplicity of steps and approvals required for sale and land transfer constitutes a primary hindrance to the development of a local financial market and to investment.

6.13 ***Outdated and incomplete commercial laws are a significant barrier to investment***. Although new laws relating to the investment code, banking laws, taxation and labor laws have led to suitable climate for investment there are still important areas where the regulatory framework needs to be updated. Rwanda does not have a codified set of rules that could be characterized as a genuine commercial code. Certain sectors of commercial laws are still governed by obsolete sets of rules and regulations enacted during colonial times:

- Contract law is governed by a colonial decree of 1888;
- Commercial Registry laws are dated from 1912;
- Status of commercial operators and Law of evidence was passed in 1913;
- Bankruptcy laws are governed by a set of rules passed in 1925 and 1934;
- Unfair competition is governed by legislation passed in 1950 and industrial property laws passed in 1963 and in 1967 are still in force, although under review.

This set of outdated and incomplete commercial laws regulating the marketplace lacks clarity, predictability and above all legal security; it is therefore a major constraint to investors operating in Rwanda and adversely affects the settlement of commercial disputes.

6.14 ***Weak financial development limits the provision of credit and investment.*** Lack of accounting records, inadequate financial statements or business plans makes it difficult for creditors and investors to assess the creditworthiness of potential investment proposals. Accountants use whatever standards they are familiar with but smaller companies simply use cash accounting. Due to lack of standards, it is very difficult to translate local accounts into international standard accounts. While most companies have accountants, these are usually poorly trained and limit their work to preparation of tax statements. There are discussions about creating accounting standards but it is unclear when they would be enacted and who would implement them since they are few qualified accountants in the country.

6.15 ***The judicial system lacks the capacity to apply consistently and promptly the existing laws.*** The Rwandan judicial system faces severe problems. There are long delays in resolving disputes because a huge backlog of pending cases, mostly criminal cases in relation to the genocide, which hampers the administration of justice. The treatment of civil and commercial disputes is slow and adjudicated by the same judges. There is also a lack of capacity to apply the law consistently and predictably. Whereas new legislation was recently passed in various sectors of commercial law, judges are not specifically trained to implement and enforce all of the new regulations creating substantial scope for discretion in interpreting new statutes. A judicial reform, supported by the CEDP, is now underway, including an Arbitration Centre, in charge of the resolution of business disputes and more recently the establishment of commercial chambers within the courts of justice. For these new institutions to quickly and consistently process commercial cases requires that commercial judges be trained in all areas of commercial law.

6.16 ***Survey results confirm that certain elements of the costs of doing business in Rwanda are high relative to other countries*. *The One Stop Centre for Investment needs to be reinforced.*** The Costs of Doing Business survey[52] reinforces the importance of many of the problems discussed above. Although Rwanda has implemented some important reforms there are still substantial barriers to creating and operating a business. On the positive side, the procedures for registering a business require substantially less time than in neighbors and even less time than in some OECD countries. However, the costs of establishing a business are considerably higher than in other EAC countries and Burundi. To establish a business in Rwanda costs more than twice as much (in terms of the proportion of income per head) as in Uganda. The One-Stop-Center at RIEPA has been introduced to facilitate investment. Whilst considerable progress has been made, the services provided by the centre are not exhaustive and investors still need to implement a number of actions themselves. There is clearly still scope for a more expedited and cheaper process for registering new businesses.

Table 6.1 Selected Comparative indicators between Rwanda, EAC, Burundi and OECD countries

	Rwanda	Uganda	Tanzania	Kenya	Burundi	OECD
Starting a Business						
• Number of procedures	9	17	13	12	11	6
• Time (Days)	21	36	35	47	43	25
• Cost (% of income per head)	316.9	131.3	186.9	53.4	191.5	8.0
Registering Property						
• Number of procedures	5	8	12	7	5	4
• Time (Days)	354	48	61	39	94	34
• Cost (% of property value)	9.5	5.5	12.6	4	18.1	4.8
Contract Enforcement						
• Number of procedures	29	15	21	25	51	19
• Time (Days)	395	209	242	360	512	229
• Cost % of debt)	49.5	22.3	35.3	41.3	35.0	10.7
Getting Credit						
• Cost of collateral (% of income per head)		11.9	21.3	3.3	38.3	5.2
• Legal rights index (0 to 10 highest)	5	5	5	8		6
• Credit information index (0 to 6 highest)	3	0	0	4	2	5
Closing a business						
• Time (years)		2.1	3.0	4.5	4.0	1.6
• Cost (% of estate)		38	23	18	18	6.8
Protecting investors						
• Disclosure index (0 to 7 highest)	1	2	1	2	1	5.6

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6.17 ***Registering property is a key problem in Rwanda and takes considerably longer than in neighboring countries.*** Contract enforcement, is similarly considerably more costly in terms of time in Rwanda than in Kenya and especially Tanzania and Uganda. These weaknesses hinder business

[52] see http://rru.worldbank.org/doingbusiness

development. A favorable business environment requires transparency, yet Rwanda compares unfavorably with Kenya and Uganda and especially the OECD countries regarding disclosure of information on a range of ownership and financial issues. On the procedures and requirements for closing a business, Rwanda has yet to adopt appropriate laws and regulations, as have neighboring countries.

DEVELOPMENT OF SMES IN RWANDA

6.18 ***Small and medium sized enterprises will have to play a dominant role in growth and poverty alleviation, but significant barriers to the development of this sector remain.*** If the targets of the 2020 vision are to be met then there will need to be a substantial increase in employment opportunities outside of traditional farming. Since public sector employment opportunities will be limited, a flourishing private sector, and particularly SMEs, will be required to absorb the burgeoning labor force in Rwanda. Whilst the fundamental importance of expansion of SME growth has been recognized, there remain enormous barriers to activity that will limit economic growth. There are substantial challenges in accessing finance for investment and working capital, as is discussed in the chapter on finance and rural credit. Here we concentrate on other key constraints relating to human resource capacity and access to modern technology and information. Most Rwandan SMEs are small and young companies of less than 50 employees, managed by 3 to 4 managers. SMEs in Rwanda produce primarily for the local market and are currently ill equipped to expand production and to exploit export opportunities in regional and global markets.

6.19 ***Lack of skills and experience limit business development and the scope to participate in trade.*** The SME sector is characterized by lack of managerial capacities and little training and experience in basic business tasks and functions, such as accounting practices. The productivity of SMEs is also greatly hampered by lack of technical knowledge. Skilled technicians are in short supply and not available in some cases. In certain cases the services of skilled technicians are imported from neighboring countries, but without a coherent approach to ensure that the technology embodied in those services is transferred to Rwanda or that the spillovers from such activity to the rest of the economy are maximized. These problems are compounded by lack of access to information on relevant technologies, market opportunities and product designs.

6.20 ***There is a lack of expertise in product development and marketing.*** Strategies for developing new products and services, maintaining and improving quality, packaging and market development are generally absent. For example, lack of attention to presentation and packaging is a major weakness for locally produced handicrafts in comparison with similar products from other countries competing in this market. Whilst a number of technical assistance projects have been able to provide targeted advice, for example, to certain handicraft producers hoping to export to the US under AGOA, there is a major task to raise general awareness of quality and packaging issues among small firms in Rwanda. The primary responsibility for this task rests with the Rwanda Standards Bureau, which is discussed in more detail in the chapter covering standards.

CONCLUSIONS AND RECOMMENDATIONS

6.21 Substantial progress has been made in introducing reforms and creating a new business environment with lower costs of doing business and therefore greater competitiveness for firms. This should help to attract new foreign and domestic investments, although an increase in foreign activity is likely to require significant efforts from RIEPA to dispel deep-seated, but now inaccurate, perceptions of the business climate in Rwanda. Nevertheless, there is still much than can be done to further reduce the costs of doing business in Rwanda and to make the business climate more favourable to both domestic and foreign investment.

1. ***Legal reform is incomplete and the costs of doing business remain high***, a number of business rules and regulations are obsolete and date from the colonial era. New legislation needs to be enacted in the following fields: Commercial Code, Contract laws, Bankruptcy, Land registration, Competition, and a new set of rules on formation and registration of cooperatives, associations and economic interest groups.
2. ***There is a need to further strengthen the legal system and the capacity of legal professionals to effectively and consistently apply business laws.*** This necessitates, additional training and legal education, enhancing the capacities of the Arbitration Centre, introducing clear and unambiguous rules and regulations relating to land ownership, and improving the services of the cadastre system in order to modernize land titling and facilitate registration.
3. ***Restrictions on investment-related residence and work permits for expatriates should be relaxed.*** Rwanda should adhere to the New York Convention of 1959 on the Recognition and Enforcement of Foreign Arbitral Awards in order to harmonize laws applicable to foreign and internal arbitration in Rwanda. The network of Bilateral Investment Treaties signed by Rwanda is limited to a few neighboring countries and should be expanded in order to include major American, European and Asian trade partners. A few double taxation treaties have been signed with Switzerland, Belgium and Germany respectively in 1963, 1969 and 1985; the network of double taxation treaties should also be significantly expanded.
4. ***With regard to SMEs, the government needs to work with donors and relevant local institutions to implement a business development program focused on the required business skills and facilitate the transfer of appropriate knowledge, experience and best practices from other countries.*** Learning from entrepreneurs in neighboring countries who have successfully tackled some of the key barriers that Rwandan SMEs face is likely to be most fruitful. The key institutions that could be assisted in providing these services are the private sector federation (RPSF), RIEPA and CAPMER

RELIABLE ENERGY SUPPLIES FOR TRADE, GROWTH AND POVERTY ALLEVIATION

INTRODUCTION AND BACKGROUND

6.22 ***The energy sector in Rwanda is characterized by a dualistic split between 'modern energy' (petroleum and electricity) and 'traditional energy' (bio-fuels).*** The distinction between 'modern' and 'traditional' energy is important in four respects: (i) modern fuels have some applications where traditional fuels cannot be substituted, such as, stationary or motive power, artificial lighting and electronics (ii) modern fuels are all market commodities and tend to be used more as intermediate inputs to other marketable commodities and services (and also for final consumption by households and institutions) whereas traditional fuels are predominantly used for final consumption, and only a small share enters market chains; (iii) many traditional fuels, and their productive inputs (land, water), have non-energy uses; and (iv) provision of modern fuels is capital-intensive, subject to economies of scale, and commands a far greater share of public investments. Generally, modern fuels are cleaner and more convenient in end-use, consumers are willing to pay a higher price, which is the basic justification for investing in their provision. In contrast, because traditional fuels are used mostly for household cooking, often with little or no cash cost, substitution by high-cost modern fuels is limited by affordability constraints.

6.23 ***Most poor households and almost all rural households rely entirely on traditional fuels***, used primarily for cooking. These fuels are also important to the major export products, particularly tea. Charcoal supplies for household, business and institutional customers, and wood supplies to tea and other industries (e.g., brick-making), are the 'commercial' part of 'traditional energy' sector. Low levels of mechanization in traditional farming and non-farm activities mean that most of the countryside has little use of modern fuels in productive activities. Traditional fuels thus dominate overall energy consumption. Household access to electricity is limited mostly to urban areas and richer households account for a large share of electricity sales[53]. Oil product use for personal transport is similarly mainly by richer households.

6.24 ***However, modern energy is critical to exports, non-farm growth and poverty reduction.*** Even households and productive sectors in rural areas rely on transport services, and the poor benefit from public lighting and improved social services where electricity is available. Liquid transport fuels or electricity for lighting or motive power touch almost every point in the supply chain for key exports. Attempts to add value to exported commodities through greater processing are often dependent on the availability of reliable modern energy supplies.

6.25 ***The key issue is cost and reliability of modern energy supplies.*** For Rwanda, a landlocked country with a small market, the costs of supplying modern energy are high, perhaps among the highest in the world with the recent increase in oil prices and the need to rely on oil-based power generation. Adjustment to these high costs imposes a severe burden on growth prospects. At the same time, it also needs to be recognized that lack of access – for customers otherwise able to pay the high costs of service – also carries high opportunity costs in terms of lost potential of economic growth and human capital development.

A SMALL AND FRAGILE MODERN ENERGY SECTOR WITH HIGH COST SUPPLIES AND LARGE INEFFICIENCIES.

6.26 ***Per capita consumption of electricity is amongst the lowest in the world.*** The modern energy sector is small in relation to the overall economy, as is to be expected in a primarily rural economy with largely traditional, small-holder agriculture base. Annual per capita consumption of about 20 kWh of electricity and 12 kg of oil products is among the lowest in the world.[54] The 50 largest customers account for about 40% of the total electricity sales. Provision of grid electricity and municipal water supplies is almost entirely in the hands of Electrogaz, a state-owned company, also the largest company in the country in terms of turnover (about $20 million in 2003). Grid extension beyond the urban areas has been extremely limited. About 21 isolated micro-hydro plants existed before 1994, but only a few have survived, and the rest need major rehabilitation.

Table 6.2: Electrogaz Supply

	2001	2003	2004	2005	2006
Supplies (million kWh)					
Domestic hydro	88	119	82	82	55
Domestic thermal (oil)	-	-	12	102	144
as % of domestic	-	-	13%	55%	73%
Imports (hydro)	111	123	129	110	107
Total available	200	242	222	294	306
Total sales	155	177	163	230	249
Unaccounted for ("losses")	45	65	59	63	57
as % of available	22%	27%	27%	22%	19%
Memo: Value of imports $m	8.2	9.0	10.2	8.6	7.0

Note: Based on interim work papers for the UER project

6.27 ***There has been no significant investment and a lack of maintenance of the electricity system.*** Table 6.2 shows that, until recently, all electricity supplies came from hydroelectric power produced domestically and imported (primarily from Sinelac, the jointly owned generating utility of

[53] Access to modern energy, and its use, is extremely limited. Kigali alone accounts for about 2/3 of the electricity consumption in the country and demographically only 6% of the households (around 60,000) have electricity connection, mostly in urban areas. This is also the case with municipal water.
[54] Per capita electricity consumption in Uganda and Tanzania is around three times higher.

Rwanda, Burundi, and DRC). No new significant investment has taken place in the power supply system in the last 15 years, nor have the hydroelectric generating stations or the network had required maintenance and rehabilitation except emergency attention in the aftermath of conflict in the early 1990s. The dilapidated network results in physical losses of 25 percent. This, together with low reservoir levels, has contributed to an energy crisis and the need, in the short-term, to shift to higher cost thermal generation.

6.28 ***Rwanda has a most unusual electricity tariff structure***, namely that there is no structure whatsoever. All customers, pay the same rate irrespective of factors that affect the delivery costs, such as supply type (medium or low voltage), use category (industrial, commercial, public lighting, residential), periodic quantum (1 kWh/month or 1 million kWh/month), or the time of use (peak/off-peak). At 42 RwF/kWh or roughly USc 7.5/kWh until the end of 2004, the tariff was inadequate to cover even the cash costs of supply. Electrogaz collection efficiencies have also been low (at about 80%) and it does not really "collect" on the electricity "sold" to its own water operations so that the actual revenue is only about USc 5/kWh billed. Its own electricity or diesel use for water pumping is not reflected in the water tariffs, so that there is a high implicit cross-subsidy from electricity to water operations. Beginning January 2005, Electrogaz has been granted an increase to 81.26 RwF/kWh, expected to cover at least the cash costs of power operations, depending mainly on changes in fuel costs and loss rates. Electrogaz is expected to propose a structured tariff for different classes of customers in the near future. The Government has also accepted the principle of allowing quarterly adjustments to tariffs in response to changes in fuel prices, power purchase costs, and exchange rates.

6.29 ***High transport costs and taxation result in very high domestic oil prices***. In addition to high inland transport costs from Mombasa, oil products imports are also subject to various duties and taxes, so that on average, retail prices of transport petroleum products (diesel, petrol) are 175-200% higher than the f.o.b. cost from the main supply sources (Arab Gulf markets), see Table 6.3. Taxing products at their cif value further increases fuel costs adding to the locational disadvantage of Rwanda in comparison to countries where the ratio of cif to fob value is much lower.

Table 6.3 - Indicative Prices for Oil Products (US$/liter)

	fob	cif	bulk, incl. Taxes	retail
Gasoline	0.25	0.34	0.74	0.80
Diesel	0.22	0.31	0.60	0.64
Kerosene	0.46	0.57	0.60	0.65
Fuel oil	0.21	0.40	0.49	0.53

Based on July-September 2004 data, exchange rate of 550 RwF/US$, and assuming 8% retail margin.

6.30 ***Oil and electricity are very important from balance of payments and budgetary perspectives.*** Energy imports accounted for nearly 80% of the value of goods exports in 2004. Imports of oil-using equipment – primarily transport vehicles, but recently also electricity generators – and electricity-using equipment – machinery and appliances – are also believed to account for a significant share of the imports. Revenues from import duties and other taxes (excluding VAT) on oil products are estimated at about $23 million for 2004. Adding VAT on oil products and public electricity/water supplies yields a total of about $36 million, or nearly 17% of total domestic tax revenues. The Government itself is a sizeable user of oil, electricity, and municipal water, with the 2005 budget allocating about $21 million or about 6% of the recurrent budget excluding debt service and net lending. Additionally, the 2004 and 2005 budgets have set aside about $40 million for development (capital) expenditures in the energy sector.

KEY PROBLEMS

6.31 ***The rapid escalation in world oil prices:*** The recent spike in world oil prices, combined with the high costs of land transport from Mombasa and the consequent high effective taxation of oil products, have had serious impacts on Rwanda. These price increases have raised the cost of transport. Coming at the same time as Electrogaz has had to increase diesel-based generation and water pumping, they have also increased the cost of electricity and water. The combined effects in lower profit rates are beginning to be seen in corporate tax revenues. The effect of high oil and electricity costs in wholesale or retail inflation is unclear so far, but general inflation is thought to have accelerated in recent months.

6.32 ***Unexpected power supply shortages and low service reliability***: A combination of strong demand growth with unexpectedly low lake levels in both domestic and shared hydropower sources – further exacerbated by high transmission and distribution losses and the unreliability of Electrogaz's dilapidated network – have led to extensive and lengthy power cuts beginning in early 2004. Despite re-commissioning an old diesel plant, load shedding steadily increased and was about 50% of peak demand by September 2004. These supply shortages and unreliability have raised the cost of doing business, weakened the prospects of attracting new investments, and have led Electrogaz to switch to higher-cost diesel water pumping. Many private and public sector customers have resorted to own diesel-based generation (at some US¢25/kWh, about triple the 2004 tariff and over 50% higher than the 2005 tariff of Electrogaz).

6.33 ***The high costs of thermal power generation****:* In the near term, Rwanda will have to increasingly rely on higher-cost thermal power, as domestic and shared hydroelectric plants will have to be rehabilitated and reservoir levels restored to prudent levels. As an emergency response to the cutbacks so far, the Government has provided finance for Electrogaz purchase of about 12.6 MW of new diesel generation capacity. By 2006/7, another 10-15 MW of additional capacity is needed in order to meet demand, all but a small part of which will have to be thermal. By December 2004, the monthly fuel bill is likely to have been US$1 million a month, excluding duties and taxes; depending on the evolution of oil prices, it may rise to $1.5 million a month by mid-2006.

6.34 ***Severe financial imbalances in the power sector need to be addressed****:* Electricity tariffs have fallen by nearly 50% in USD terms since the last revision in 1997. Over the same period, the quantity of Rwanda's electricity imports shot up rapidly – occasionally exceeding more than a half of the total supplies. So did the unit price of imports, mainly since Sinelac tariffs – denominated in SDR terms and driven by its high debt service obligations – have risen to nearly US 8 cents /kWh, much in excess of the Electrogaz actual revenue collection rate of about US 5 cents/kWh (after high losses and low collection efficiencies). In turn, Electrogaz has failed to service its own debt to the Government, and has actually paid only a small share of its Sinelac bills.

6.35 A complex set of cross-debts has emerged between Electrogaz and the Government, on the one hand, and among Sinelac, the governments of its three owner countries, and their public utilities, on the other. The Government is a 100% owner of Electrogaz, with an equity investment of about $40 million and is also the guarantor of Electrogaz debts, which now amount to more than $60 million, including over $20 million to Sinelac. In turn, Government dues to Electrogaz to the end of 2003 amounted to about $9-10 million, with some addition during 2004. Neither Electrogaz nor Sinelac have serviced their debts to the Government in recent years. Financial restructuring of Sinelac and Electrogaz will therefore have a significant impact on the government accounts. Also, most of the new investments in the energy sector will have to be financed with some equity or guarantee from the government, with implications for overall government borrowing and debt management. Since Electrogaz needs to finance large quantities of fuel and an aggressive investment program, major financial restructuring is required.

6.36 At current prices of petroleum products, the fuel cost per kWh alone represented twice the 2004 retail tariff, hence the January 2005 tariff increase was necessary. Even the current electricity tariff may not be adequate if physical and collection losses are not reduced significantly. Adding financial charges and contribution to new investments will require still greater increases in tariffs, even with a significant debt/equity conversion. These energy price increases are likely to make it more difficult for Rwandan firms to compete in local and regional markets. Table 6.4 shows that industrial electricity costs in Rwanda are now much higher than those in the neighboring countries.[55]

6.37 ***Rapid urbanization and industrial demands strain wood fuel supply systems*** exacerbating an additional, ongoing, silent energy crisis. Urbanization and industrial growth, combined with limited access to electricity and high cost of petroleum products, have led to an even more rapid growth in urban charcoal demand. Severe deforestation has been further compounded by the large-scale demands for charcoal-making and construction materials. Distances for large-scale movement of wood and charcoal supplies have increased, technical efficiencies of making and using charcoal are low, even compared to neighboring countries, and end-user charcoal prices have increased both in real and nominal terms. Since electricity prices declined in real terms from 1997 to 2004, at some point it may have become cheaper to use electricity for cooking, thus adding to electricity peak demand growth at the margin. In response to a perceived wood fuel shortage, the Cabinet has issued decrees strictly regulating the use of wood, further escalating charcoal prices. However, high tax rates on LPG (liquefied petroleum gas or 'cooking gas') leave grid electricity as the only 'premium fuel' for customers able to afford an electricity connection and wishing to move up the 'energy ladder'. In turn, the shift from charcoal to electricity, whose magnitude and pace cannot yet be ascertained, adds to electricity demand and especially the peak demand.

Table 6.4: Industrial Sector Electricity Tariffs in the Region

				Hypothetical monthly bill US$ for	
	Monthly fixed charge US$	Demand charge, US$ per kVA/month	Energy charge USc/kWh	0.5 MVA, 100 MWh/mo.	1.5 MVA, 500 MWh/month
Rwanda			14.8	14,775	73,873
Uganda	8.8	1.9	3.6	4,532	20,685
Kenya	26.3	1.3	7.0	7,658	36,868
Tanzania	5.5	5.5	5.0	7,801	33,483

CURRENT STRATEGIES

6.38 ***The Government has given high priority to energy in its PRSP*** and has initiated steps in sector reform to attract private sector participation (including finance). The Government's strategy in the power sector responds to the twin objectives of reviving the sector from its near-crisis situation and establishing a sound basis for future growth and development. In the near term, the transition strategy is to address the power shortage by investing in thermal generation and reviving the performance of Electrogaz. Over the medium term, the Government intends to establish policies and institutional frameworks that would create incentives for development of indigenous energy resources, sustainable and efficient performance of sector entities, increased electricity access and an enhanced flow of investments, both from development partners and from the private sector. In the power sector, rehabilitation and expansion of the generating capacity as well as transmission and distribution network will require relatively huge investments. While the investment requirements are indeed large, there are absorptive capacity constraints, considerable lead times in project preparation and implementation, and limits to Government ability to borrow or provide guarantees. Some of the finance will come from private sources, which also takes time and effort to realize.

[55] Uganda, also suffering from power shortages, is planning emergency diesel generation, which will lead to higher tariffs.

6.39 ***There is no question about the need for urgency in meeting the current power supply crisis*** by shifting to lower-cost generation, expanding the network and using off-grid electricity supply options, and promotion of programs and projects to build sustainable and efficient production, delivery and use of wood fuels. To a considerable extent, the current power crisis is a lingering result of the 1994 war and genocide, and the neglect of the energy sector by the donor community. Mobilizing external donor finance of at least a half of the "investment requirements" proposed above will be a challenging task.

6.40 ***A number of investment projects have been initiated and there are promising possibilities for increased generating capacity.*** In the immediate term, new projects with the African Development Bank, OPEC Fund, BADEA, and IDA/NDF financing will invest in (a) rehabilitation of domestic hydro plants, additional thermal generation capacity, and power network rehabilitation for Electrogaz; and (b) urban water supply network improvements. Under current projections, an additional 5 to 7.5 MW of oil-fired thermal capacity is required by 2006 to meet demand growth and to provide replacement power for domestic and imported hydroelectricity supplies (that need to be curtailed for rehabilitation and restoration of lake levels). This will be based on heavy fuel oil, which is preferable to diesel both because of lower costs and higher conversion efficiency. As hydro supplies improve, the diesel units will serve primarily as peaking units.

6.41 ***The development of Lake Kivu gas offers an important opportunity.*** In the medium term to 2008, further capacity additions can come from small grid-connectable hydro plants (about 1-3 MW run-of-river plants) or development of Lake Kivu gas (see Box). Power planning studies indicate that electricity from this gas could be generated for USc 3-5/kWh, depending upon the assumptions about the royalty and tax regime to be applied on gas production. This is an extremely attractive energy source for Rwanda and GoR/Electrogaz need to be supported in their efforts to bring it into production. A recently completed Strategic Social and Environmental Assessment of Power Generation Options (SSEA) in the Rwanda, Burundi and western Tanzania indicated that Lake Kivu is the most attractive option in the medium term, supplemented over the longer term by additional hydroelectricity (Rusumo Falls in Rwanda or Rusizi III in DRC) or geothermal generation. Resource assessment and feasibility studies for these and other long-term options (such as, peat) have to be initiated or updated.

Box 6.1: Lake Kivu Gas

Methane gas is believed to form in Lake Kivu from a combination of geological and biological processes. It is estimated that some 100 to 150 million cubic meters of methane are generated annually in the lake, making it a renewable source of energy. The proven methane gas reserves of 29 billion cu.m in Lake Kivu have been confirmed by numerous scientific studies over the past several decades. Small quantities of gas have been produced for some 40 years for use at the Bralirwa brewery in Gisenyi. Under the Energy Sector Rehabilitation Project (closed 2001), IDA financed studies that established that larger scale gas exploitation could be technically feasible, environmentally safe and economically attractive.

Some form of state participation and guarantees/financial involvement by Rwanda's development partners will probably be necessary in order to provide potential investors with the necessary security to undertake the project. The nature and scale of public support needed to accompany a private developer have yet to be defined. Given the degree of perceived country risk, some form of state/donor participation appears to be unavoidable. It would be advisable for GoR to seek international expressions of interest from all potential developers.

6.42 ***Large scale investment in generating capacity and the network, whilst crucial to the economy, will have little direct impact on rural communities.*** While investments in large-scale generation and the supply network will alleviate the supply shortages and reduce the reliance on high-cost oil-based power, their benefits will be limited, at least initially, to the productive enterprises and relatively richer, upper-income households and institutions connected to the grid. Because network extension costs can run easily to about $30,000 per km of transmission line, $10,000 per km of distribution lines, and $600-1,000 per customer connection, it is obvious that for the majority of the population outside of the urban areas, grid electricity will remain beyond reach for quite some time. Not only is it too expensive to extend the grid at high costs and high losses to serve small, isolated demands, the current size of the main grid and the high cost of generation limits the potential for any significant cross-subsidization for rural electrification.

6.43 ***Micro-hydro schemes offer the best way of bringing energy to local communities in rural areas.*** Rwanda has had some experience with "micro-hydro" based independent grids, and various potential sites have been identified in recent years for rehabilitation or new greenfield investments. These cost from about $50,000 to $400,000 or more depending on the location and customer base. Rwanda's population density is relatively high, and in recent years population clusters have tended to get larger even outside of main towns. Revival and expansion of rural productive enterprises, in tea and coffee processing, in particular, also constitute 'pockets of potentials' with sufficient demand densities serviceable in a commercial manner by independent grids. An IDA-financed project will initiate some investments in micro-hydro development so as to establish a 'proof of concept'. Additional support from the African Development Bank and some bilateral donors (Belgium, the Netherlands) is also expected. There is, however, a need to bring these efforts together within a clear strategy for targeting rural electrification.

6.44 ***Action is required to reverse unsustainable wood fuel exploitation and reduce the costs of charcoal***. Three complementary measures are needed: (i) sustainable supply management, including the planting of more trees and better management of existing private and communal woodlots; (ii) conversion and end-use efficiency improvements to reduce demand for wood fuels in households, institutions, and small industries, via adoption of improved stoves and other devices, including higher-efficiency kilns for charcoaling and brick/tile-making; and, (iii) lowering the price and non-price barriers to access to substitute fuels. High taxation of LPG needs review, and small-scale investments in the use of peat, papyrus, and agricultural residues (for charcoaling and briquetting, for instance) may benefit from policy support.

ENERGY AND POVERTY REDUCTION

6.45 ***Indicators of energy use are closely associated with measures of economic growth and human development.*** Modern energy contributes directly as a productive input to manufacturing and service sectors and indirectly, via facilitating other infrastructure services. In general, modern energy is either a critical, in that there are no substitutes available, or least lower-cost input into almost all economic infrastructure. It is at the centre of key infrastructure services, such as, motorized transport, electronic/radio/telephonic communications, and potable water supplies/sanitation. Modern energy is also critical to the use of new products and services (including in education and health sectors). In addition to these benefits from the 'productive' sectors, the household consumption of modern energy also generates welfare benefits not captured in the national income accounts, for example, extension of the working and reading day, safer movement at night, and avoidance of highly polluting and unhealthy use of unprocessed solid fuels. Finally, while modern energy supply systems cause varying levels of local environmental damage, it does appear that the net environmental effect of shifts from traditional biomass and animal power to modern energy is generally positive. However, once a dependence on modern energy is established the cost of disruptions can become very high.

6.46 ***Access to modern energy and the improvement in other infrastructure services it enables, is crucial to broad based economic growth and to poverty reduction.*** Efficient, broad-based infrastructure services are critical to broad-based growth by lowering production costs, enabling technological change and facilitating shifts to higher-value-added activities. In addition infrastructure services support poverty alleviation indirectly by facilitating regional and social integration, expanding coverage of public transport and water/sanitation services, improving the quality of services in health and education services and reducing overall vulnerability and isolation. However, low and variable incomes and a limited asset base in turn constrain the use of modern energy and other infrastructure services by the majority of the population in Rwanda and undermine the financial viability of the large scale capital investments that are necessary to extend supply systems. But in Rwanda, even where this 'affordability' constraint is not that severe, energy/infrastructure development has lagged, and imposed high opportunity costs of poor service and non-access because typically the investments have not been efficient and cost recovery has been denied, thus limiting further investments. In other words, inefficient and narrowly-based infrastructure has typically generated inefficient and narrowly-based economic growth and poverty alleviation.

6.47 ***Current challenges require a strategic outlook for extending energy supplies into rural areas***. The challenge for the development of modern energy in Rwanda, in particular electricity, is to (i) improve efficiencies, by lowering costs and losses and permitting cost-recovery tariffs, so that Electrogaz can attract financing for further investments, and (ii) selectively expanding geographic and demographic access so as to achieve a broader base for economic growth. As noted above expanding network coverage for small, dispersed demands over long distances is costly. The challenge is to identify key locations in rural Rwanda that can both (i) generate growth through increased exports (for example, of coffee or horticultural products) if grid-quality power were available (by reducing post-production losses and maintaining or improving product quality) and (ii) support a growing market for electricity and other infrastructure services that in turn rely on electricity from the extra income thus generated at the local level, for example, telecommunications and information technologies, and water/sanitation services. It is recommended that the government seek to integrate such 'export growth centers' in its planning of provision of grid-quality power via Electrogaz grid extension, or via independent mini-grids.

CONCLUSIONS AND RECOMMENDATIONS

6.48 ***Adjustment to the power and water supply crises will not be easy nor quick***, especially in the face of high oil prices. In the short term, some export industries – tea, textiles, and tourism – will be adversely affected by the required tariff increases, as will industries serving the domestic market – transport, brewery, and public services. Lower-income urban households with electricity connections will suffer immediate, direct hardship from the doubling of the electricity tariffs announced in January 2005. In the near term, Rwanda's electricity will remain high-cost with sub-optimal reliability. Oil and electricity/water prices will continue to exert inflationary pressures, but if a severe balance of payments crisis is to be averted, traditional and non-traditional exports that are not energy-intensive – and where higher transport costs do not undermine competitiveness – will have to be increased very rapidly. Some of these non-traditional exports enterprises – including the financing and service intermediaries in the supply chains – value reliability of energy supply.

6.49 ***Power supply interruptions hurt the most.*** During 2004, Electrogaz made considerable efforts to protect the major factories from load-shedding. However, only a part of the load-shedding is planned due to the low reservoir levels in the domestic hydro plants. The very weak and dilapidated network also leads to unplanned disruptions. Unanticipated outages lead to an immediate loss in output of a product or service, reduce capacity utilization, and increase fixed costs. Some consumers substitute high-cost self-generation and treat an outage as a mere higher cost of production. For others, including lower-income households and small-scale retail traders that cannot shift activities during the day or afford self-generation, outages impose direct hardship. With the emergency diesel generators of Electrogaz in operation, it is imperative that financing of fuel procurement not constrain bulk supplies.

While network conditions will continue to create some supply disruptions, consumers will be able to form more reliable expectations and factor into their operations the higher energy price.

6.50 ***The impact of higher prices can be mitigated by introducing a new tariff structure and developing an energy management program for key export sectors.*** In order to avoid undue cross-subsidy from the medium-voltage manufacturing customers to the low-voltage commercial, government and household customers, it is imperative that a new tariff structure corresponding to differential cost of service and exploiting the affordability potential among the upper-income customers be established as soon as possible. Among the current large electricity customers that are also exporters or subject to price competition by imports, *a special energy management program for the tea, textile, hotel customers needs to be initiated.*

6.51 ***To move out of the crises, the Government needs to attract additional investment***, which in turn mandates a strengthening of sector finances via tariff adjustments, along with financial restructuring of Electrogaz and, in cooperation with the other two state owners, of Sinelac. Prospects of economic growth are certainly diminished by higher energy and water costs, and adjustment will in part also fuel inflation, both in turn having negative effects on the poverty reduction strategy. Efficiency potentials in the supply chains and uses for electricity, water and wood fuels thus merit serious attention for planning and investments, both in the public and private sectors.

This analysis leads to the following recommendations

1 ***Electricity tariffs need restructuring***. Electrogaz needs to replace the flat tariff and institute a tariff structure consistent with good utility practices corresponding to differences in costs of service. Specifically, medium-voltage electricity customers should be offered a two-part tariff with incentives for load management (peak vs. off-peak), end-use efficiency improvement, and optimal use of ‘embedded generation’ (customers’ own capacity depending on time of use).

2 ***Severe financial imbalances in the energy sector must be addressed.*** High net debts (to the government and to Sinelac) limit the ability of Electrogaz to take on new debts under any reasonable conditions for debt service or return on assets. Hence, a comprehensive financial restructuring of Sinelac as well as Electrogaz is essential.

3 ***Taxation of petroleum products should be reviewed.*** The current duty and tax regime accentuates the effects of world oil price increases. Fuel imports by land in small road tankers are costly and inefficient, and since the taxes are levied on c.i.f. values rather than f.o.b. values, in effect taxes are levied on these inefficiencies. Also, high taxation on LPG limits the potential for a switch from charcoal, making electricity the only viable modern energy source and adding to peak demand.

4 ***Planning and management capacity needs strengthening with donor support.*** The Government needs to increase its expenditures on sector planning and regulation, and also promote capacity building efforts in the supply chains for off-grid rural electrification, and energy efficiency improvements.

5 ***There should be a reassessment of donor priorities***. The donor community needs to strengthen the Government hand in sector reforms and in attracting foreign funds for both public and private sector investments by elevating the share of infrastructure in country assistance programs and promoting ‘cross-sectoral’ collaboration among infrastructure service provision and other development programs in the health, education, local government, rural development, ICT promotion, investment and export promotion, and financial services.

6 ***A strategy for commercial expansion of electricity access should be developed.*** Provision of modern fuels closer to the 'grass roots' in the supply chains for exports could help improve quality of products and services, improve efficiency and reduce losses/wastes, and share the benefits of export growth more equitably.

Chapter 7 Supporting Trade and Export Diversification

7.1 Whilst the key barriers to trade in Rwanda emanate from restrictions on supply side responses, there is still much that can be done to support trade and export diversification. This chapter looks at the key institutions and policies that are crucial to sustain export growth, focusing on trade policies, export promotion and export development and then standards and quality. Trade policy could be used to more effectively support development by reducing to zero duties on raw materials and striving for lower tariffs on finished products and by joining the WTO Information Technology Agreement and offering to liberalize IT-related services sectors through the GATS. This would support and enhance the ICT strategy. Such a move would provide a clear signal to investors both within and outside of Rwanda of the government's commitment to a strong and open policy towards IT. ***There is strong case for technical assistance to strengthen analytical capacities and support trade negotiating capacities***. In preferential and regional agreements Rwanda should be pushing for more development friendly rules of origin and progress on opening up services. There is also a need for technical assistance to improve the quality of trade data. Reliable data is a necessary input into careful trade policy analysis and to a well designed export promotion strategy.

7.2 ***Effective export promotion activities will be required to provide for sustained export growth and for export diversification towards non-traditional exports***. Current export promotion activities and initiatives in Rwanda are fragmented, uncoordinated and incomplete and are not organized within a national strategic plan. There is an urgent need to coordinate and systematize all these efforts and to establish priorities. The government has expressed a strong commitment to address these issues through defining an export promotion strategy and creating a focal point and coordinating agency, RIEPA. The EPS contains important strategic orientations and choices but does not go far enough in formulating an Action Plan. There is no coordinated export diversification strategy or action plan.

7.3 ***Diversification of exports into higher value-added products, such as horticulture, will necessarily require building the country's food safety and Sanitary and Phytosanitary management capacities and addressing the weaknesses that undermine product quality***. The priority should be investments in awareness, recognition and application of basic good practices for hygiene and safety among farmers and entrepreneurs to provide the foundation for a strong food standards system. Technical assistance and training on good agricultural practices and Hazard Analysis and Critical Control Points are essential to support an export strategy for processed agricultural products.

TRADE POLICY STRATEGIES TO SUPPORT GROWTH AND POVERTY REDUCTION

7.4 ***Trade policy defines the incentives that firms and traders face in participating in international markets.*** Export growth and diversification will play a crucial role in contributing to the objectives of sustained growth and poverty reduction in Rwanda. Domestic trade policy that leads to a strong anti-export bias will not be consistent with a poverty reduction strategy based upon growth stimulated and sustained by trade. A country that faces major barriers in overseas markets will not be able to reap the full potential of the comparative advantages it possesses. After a brief discussion of the structure of Rwandan exports and imports, this chapter reviews Rwanda trade policies and the terms of access for Rwandan exporters in overseas markets in the context of the current structure of exports and the potential for diversification. The chapter suggests a number of measures that Rwanda could take to tailor trade policies to a more growth oriented path, and in particular to support the ITC strategy. It also shows that there are a number of key issues facing Rwanda relating to access to both regional, EU and global markets. However, the capacity in both the public and private sector to identify and effectively represent Rwandan interest is extremely limited and should be supported.

The Structure of Exports

7.5 ***Markets in Asia have increased in relative importance as the prices of traditional products have fallen***. Western Europe has traditionally been the main destination for Rwandan exports, reflecting the dominance of traditional commodity exports, coffee and tea. Table 7.1 shows that in the early 1990s exports to high income countries accounted for almost 90 per cent of exports, with the EU15 countries being the destination for 78 per cent of exports. However, significant changes in the geographical and commodity structure of exports have occurred during the 1990s. The share of exports going to high income countries has fallen precipitously to less than two-thirds of the total, whilst the share of exports to developing countries, especially those in Asia has increased. In part this change in structure reflects changing commodity prices for tea and coffee. The average value of total exports in $US in the early years of this decade have been less than one half of their level in the early 1990s, reflecting solely the decline in export values to industrial countries. The value of exports to developing countries, on the other hand, increased. Within this, new markets have been found in China, Thailand, Central Asia and South Africa, whilst markets have been lost in Latin America and North Africa. Exports to COMESA countries have also risen, especially to Uganda, but remain a relatively small share of the total.

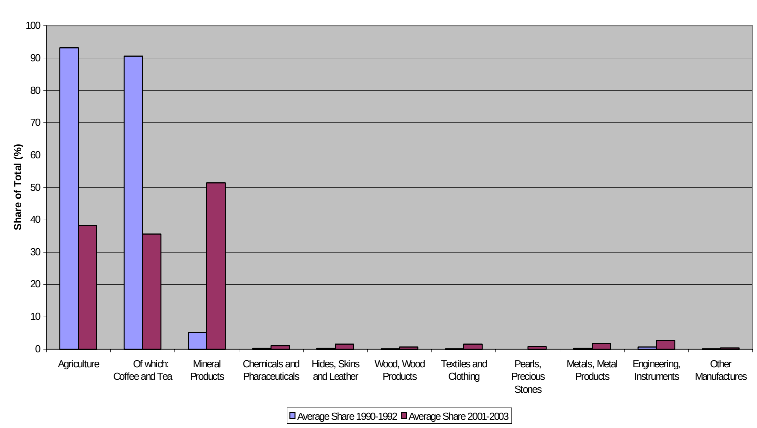
Table 7.1: The Geographical Structure of Rwandan Exports

	Share of Total	
	1990-1993	2000-2003
A: Low Income Countries	12.3	34.1
East Asia and Pacific	2.6	12.6
China	0.7	7.7
South Asia	6.9	5.1
Eastern and Southern Africa	0.9	6.4
Burundi	0.3	1.1
DRC	0.3	2.0
Kenya	0.1	0.3
Uganda	0.2	1.1
Tanzania	0.0	0.1
South Africa	0.0	1.7
Europe and Central Asia	0.1	9.0
B: High Income Countries	87.7	65.9
EU15	78.0	45.6
East Asia and Pacific	0.5	12.6
North America	8.9	7.5
C: World ($US)	141,265,848	66,299,470

Notes: The data come from IMF Direction of Trade Statistics

7.6 ***Exports remain highly concentrated on a small range of products.*** Underlying these changes in the geographical structure of exports has been a substantial shift in product structure. Figure 7.1 shows that in the early 1990s more than 90 per cent of exports were accounted for by coffee and tea. In the early years of this decade however, mineral products (more specifically products classified under HS 261590 - Niobium, tantalum, vanadium) have come to dominate exports and it is these products that are primarily being

Figure 7.1: Commodity Structure of Rwandan Exports



exported to new markets in Asia and South Africa.[56] Exports to the EU and the US continue to be dominated by coffee and tea. Nevertheless, exports remain highly concentrated on a small number of products.

The Structure of Imports

7.7 Table 7.2 shows the geographical structure of imports. As with exports there has been a large shift away from high income countries as sources of imports during the past decade, but in this case it is COMESA countries which have grown in importance. In the early 1990s the high income countries on average accounted for two-thirds of Rwanda's imports. The EU alone provides 50 percent of total imports. However, in the first four years of this decade the high income countries on average provide less than half of Rwanda's imports and the EU share had fallen to 30 percent. Imports from COMESA countries, on the other hand, and especially Kenya and Uganda, grew strongly. Kenya now provides around 30 per cent of Rwanda's imports and Uganda 10 percent. In contrast, the importance of Tanzania, who left COMESA in 2000, has declined to almost one quarter of their value 10 years ago. It is also noticeable that the US has become more important as a supplier to the Rwanda market.

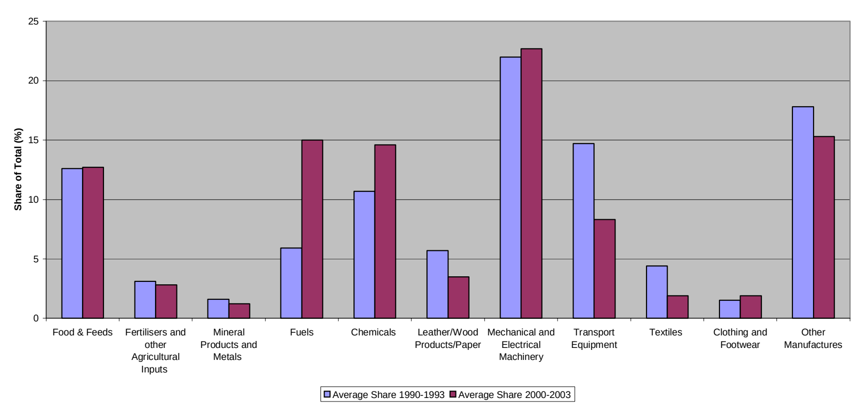
Table 7.2: The Geographical Structure of Rwandan Imports

	Share of Total	
	1990-1993	2000-2003
A: Low Income Countries	33.7	53.7
East Asia and Pacific	1.8	2.2
China	1.7	1.6
South Asia	2.0	2.1
Eastern and Southern Africa	28.8	46.6
Burundi	1.2	1.1
DRC	0.9	3.2
Kenya	14.3	29.7
Uganda	0.5	5.0
Tanzania	6.8	1.9
South Africa	4.0	4.0
Europe and Central Asia	0.7	1.9
B: High Income Countries	66.3	46.3
EU15	49.8	30.7
East Asia and Pacific	10.7	3.9
North America	2.5	6.7
Europe and Central Asia	2.2	0.3
Middle East	1.1	4.7
C: World	210,832,936	214,791,438

Mirror statistics from IMF Direction of Trade Statistics

7.8 Figure 7.2 shows the distribution of Rwandan imports across different product categories. The key change over the past decade has been the increase in the share of fuels but at the same time the declining importance of transport equipment. It is also noteworthy that imports of fertilizers and other inputs to the agricultural sector have also declined slightly as a share of imports but also in absolute terms. Increasing the use of fertilizers in agriculture is a crucial issue with regard to the realization of the objective of raising agricultural productivity, which in turn is a key element of the poverty reduction strategy.

Figure 7.2: Commodity Structure of Rwandan Imports



[56] Uncertainty about the quality of these data, to be discussed below precludes a more thorough discussion of these trends.

7.9 ***Technical assistance should be provided to improve the quality of trade data to allow for effective trade policy analysis*.** The data in Tables 1 and 3 are derived from mirror statistics, that is, imports by each of the countries recorded as coming from Rwanda. Using the mirror statistics, however, gives a very different picture of the geographical structure of Rwanda's exports than using recorded export data, as was used in the WTO Trade Policy Review for Rwanda. Using the export data suggests that Kenya is a major export destination for Rwandan products, with 40 percent of exports going to Kenya in 2003. However, this reflects that much of the export through Kenya is shipped to a further destination without any transformation. When using the mirror statistics, Kenya is a destination for just 0.3 percent of total Rwandan exports. Thus, small scale technical assistance to improve the classification of Rwandan export data would allow for simpler and more accurate analysis of exports.

7.10 Similarly, the data in Table 3 are also derived from mirror statistics, that is other countries reports of their exports to Rwanda. Whilst the total value of imports derived from mirror statistics and from Rwanda import data are similar there is an important difference in the geographical information from the two sources. In the Rwandan import data the value of imports from Kenya is less than half of that reported by Kenya of its exports to Rwanda. The corresponding discrepancy appears in imports from Saudi Arabia—negligible according to the mirror statistics but substantial in the Rwandan import data. What is not clear is whether oil from Saudi Arabia is being processed in Kenya to an extent to confer origin to the subsequent exports to Rwanda. Diagnostic trade integration studies being undertaken in Kenya and Tanzania attest to the poor quality of trade data in these countries, and so there is uncertainty concerning both the reported and the mirror statistics for Rwanda. A concerted regional approach to improving the quality of trade data should therefore be followed. Trade policy analysis and prescription are dependent on high quality and reliable trade data. Such data are not available in Rwanda and this is an area that warrants short-term technical assistance.

POLICIES RELATING TO IMPORTS[57]

7.11 ***Rwanda could increase the credibility of reform and increase certainty regarding investment conditions in Rwanda by aggressively reducing bound tariffs towards applied rates.*** During the Uruguay Round, Rwanda agreed on tariff bindings for all of its tariff lines, whereas less than 12 per cent of lines were bound before the round. All bindings are specified as ad valorem duties which vary from zero to 100 per cent. The simple average of these bound rates is 89 per cent, reflecting that three-quarters of the lines are bound at the maximum rate of 100 percent. Less than 1 per cent of lines are bound at zero per cent. Applied import duties are, in general considerably below the bound rates.[58] There are four applied rates: 30 per cent for finished goods, 15 per cent for intermediate goods, and 5 per cent for raw materials and zero per cent for capital goods. The simple average of the applied duties was 18 percent in 2003, whilst the trade weighted average was 19.4 per cent. However, taking account of imports from regional trade partners, the trade weighted average falls to 17.2 per cent. Finally, exemptions from duties (due to investment promotion etc) entail that the effectively applied rate (actual tariff revenues divided by the value of imports[59]) was 14.6 percent.

7.12 Rwanda should push for an aggressive tariff cutting formula in the current round of WTO negotiations. This would considerably reduce bound tariff rates towards applied rates in Rwanda. Large gaps between bound and applied rates are sometimes viewed as a form of strategic insurance or

[57] This section draws heavily on the recently completed WTO Trade Policy Review

[58] Applied duties for 241 tariff lines exceed the bound rates. To comply with WTO obligations these rates will have to be reduced to the current bound level.

[59] For all the trade weighted calculations we exclude imports by the government and international organizations which are all exempted from duties.

"policy space". However, this comes at the cost of deterring investment by undermining the perception of the government's commitment to reform, and maintaining the risk of policy reversal and hikes in duties on key imported intermediate products. The "locking-in" of applied tariff rates through commitments to lower bound rates would thus increase the credibility of reform and increase certainty regarding investment conditions in Rwanda. There would however, be little impact on applied rates and hence a negligible impact on revenues. In addition, an ambitious tariff cutting formula would reduce duties in key middle income developing countries. However, there would be lower margins of preference in industrial countries, although little direct impact on Rwanda due to the negligible role that preferences currently play.

7.13 ***Although the level of applied tariffs is comparable to other countries at similar levels of development, reducing tariffs on raw materials would support exporters.*** Rwanda's average ad valorem tariff rate of 18 percent, compared to 15 percent for all Sub-Saharan African countries. Duties are currently levied on some raw material inputs, although fertilizers can be imported duty free. Given its relatively small size and level of development, most exported products will contain at least some imported raw materials.[60] Hence, the taxation of these inputs will constrain exporters. In principle, there are various mechanisms available for exporters to be exempted from or refunded such duties, such as duty drawback or temporary importation schemes. However, the administration of such schemes is likely to be costly in terms of administrative resources for both exporters and the government. A simple approach, which would avoid these costs, would be to reduce the tariffs on raw

Table 7.3: Simulated Impact on Imports and Trade Revenues of Different Tariff Scenarios

Tariff Scenarios	Trade Weighted Average Tariff Base average = 17.5%	Change in the Value of Imports	Change in Tariff Revenue	Change in Total Trade Taxes
1.A Tariffs on raw materials reduced to zero	16.4%	0.8%	-5.1%	-2.1%
1.B Join Information Technology Agreement (ITA)	16.3%	1.5%	-4.8%	-1.4%
1.C Tariffs on ITA products and raw materials reduced to zero	15.3%	2.3%	-9.9%	-3.5%
2.A COMESA CET	14.1%	3.6%	-16.0%	-5.5%
2.B Tariffs on ITA products raw materials reduced to zero and COMESA CET	12.9%	4.7%	-21.7%	-7.7%
3.A Economic Partnership Agreement (EPA) with EU	10.5%	7.8%	-34.4%	-12.2%
3.B Tariffs on ITA products raw materials reduced to zero and COMESA CET and EPA with EU	10.0%	8.4%	-36.8%	-13.0%
4. East African Community CET	12.6%	4.4%	-24.2%	-9.1%

These simulated impacts of tariff changes are derived from the SMART model, a partial equilibrium trade model. The trade data used incorporate exemptions from tariffs and are for the year 2003. In the case of the COMESA CET some steps have already been taken to implement the new tariff. The simulations here reflect the additional changes relative to 2003. The change in total trade taxes incorporate revenues from VAT but we do not include the Magerwa fee.

[60] Parliament is currently considering such a proposal to reduce duties on raw materials to zero.

materials to zero.[61] The impact on revenues of setting duties on raw materials to zero would be relatively small. Simulations presented in Table 7.3 suggest that if duties actually levied on raw material products (that is after taking into account tariff exemptions) had been set at zero then tariff revenues would have declined by around 5 percent in 2003, whilst trade taxes (that is including VAT derived from imported goods) would have fallen by 2 per cent.

7.14 ***In the medium term reducing high tariffs on finished products will lessen the risk of adverse impacts from regional trade agreements and a partnership agreement with the EU.*** High duties on finished and intermediate goods could lead to significant welfare losses from trade diversion as Rwanda implements regional trade agreements but particularly trade preferences for imports from the EU under the planned EPA. The precise impact of preferential tariff reduction under an EPA will depend on how much competition there is between different EU suppliers and whether these EU suppliers produce at lower or higher cost relative to suppliers in other countries. If there is little effective competition amongst EU suppliers of a particular product, then when tariffs are cut on a preferential basis, these suppliers may decide to maintain prices and raise profits. This will result in a transfer of revenues from the Rwandan government to EU suppliers. If there is sufficient competition that prices decline there may still be costly trade diversion if less efficient EU suppliers replace imports from more efficient competitors that pay the import tariff. It is perfectly possible that the losses that arise when trade from more efficient tariff paying sources is replaced by less efficient preferential trade exceed the gains to consumers as prices decline. Only if there is sufficient competition amongst EU suppliers and EU suppliers are efficient in the global economy can Rwanda be sure that preferential tariff reduction will be beneficial. The risks of losses from trade preferences are lower the lower are external tariffs.[62] A crucial element of such a policy development will be a careful analysis of the impact on revenues from lower collections from imports. On the one hand, as imports rise there will be increased revenues from VAT on products consumed in Rwanda. In addition, as activity and growth increase there will be additional revenues. Nevertheless, it will be important to identify if such a policy will lead to revenue shortfalls and how this can be accommodated. Hence, it may be necessary to reduce tariffs to minimize the potential for welfare losses from an EPA. The Doha Round offers to opportunity to do this whilst at the same time leveraging better access to other markets and engagement on issues such as aid for trade.

7.15 ***Joining the WTO Information Technology Agreement would support the ICT strategy.*** Rwanda has defined an explicit ICT strategy and has placed ICT as an integral element in achieving its development objectives. However, Rwanda still levies import duties on ICT equipment and products, although concessions and exemptions mean that only a proportion of such trade is actually taxed. Removing these taxes on imports would be consistent with pursuing and enhancing the ICT strategy. One way to proceed would be for Rwanda to join the WTO Information Technology Agreement (see Box 1 for a brief description). Rwanda would be the first LDC to join the agreement.

[61] Whilst this would increase the degree of escalation in the tariff and the effective protection of finished goods this is of less importance in Rwanda where the domestic market is very small and for many products there are no import competing substitutes.

[62] More details on the possible impact of EPAs are provided in Hinkle and Newfarmer (2005).

Box 7.1: The WTO Information Technology Agreement

The ITA is a tariff cutting mechanism with three basic principles: 1) all products listed in the Declaration must be covered, 2) all must be reduced to a zero tariff level, and 3) all other duties and charges (ODCs) must be bound at zero. There are no exceptions to product coverage however, for sensitive items it is possible to have an extended implementation period. The commitments undertaken under the ITA in the WTO are on an MFN basis, and therefore benefits accrue to all other WTO Members. In general, the agreement covers the main categories of ICT products: computers, telecommunications equipment, semiconductors, semiconductor manufacturing equipment, software, and scientific instruments. There are 63 members of the ITA comprising industrial countries as well as a number of both large and small developing countries, such as, China, Egypt, El Salvador, India, Mauritius, Moldova and Morocco. There are no LDC members.

7.16 In addition to underpinning the ICT strategy by providing cheaper access to ICT products, joining the ITA would provide a strong signal to investors, both domestic and foreign, of Rwanda's commitment to an open ICT environment. The binding of tariffs on ICT products at zero under the ITA would also save resources that are currently used to assess and implement requests for exemptions from customs duties for these products. In 2003, import taxation of products covered by the ITA produced less than half of the revenue that would have arisen if the full tariff had been applied to all of these imports. Most of the difference (95 percent) is due to tariff exemptions.[63] Joining the ITA would be a much more efficient way of achieving the same impact as these exemptions—it eliminates the administrative costs of managing exemption programs as well as incentives for rent-seeking that they create—and would confer the benefits of cheaper ICT products more widely to small businesses and personal users.

7.17 Applying zero tariff rates to all imported ICT products would however, lead to a loss of tariff revenue. In 2003 tariff revenues from ICT products amounted to RF 900 million (less than $2 million), which was less than 5 percent of the total collected revenue from import tariffs. The simulations in Table 7.3 suggest that joining the ITA would reduce total trade taxes by less than 2 percent. Whilst this is not entirely insignificant, the economic value of this lost revenue is likely to be small compared to the benefits of entrenching the ICT strategy. In the longer run if this approach leads to higher investment and greater economic activity then the net impact on government revenues is likely to be strongly positive.

7.18 ***Negotiating Commitments on ICT Services under the GATS would further enhance the ICT strategy.*** Just as the nascent ICT sector cannot flourish without low-cost access to imported goods such as telecommunications hardware, it also requires access to imported services. Regulations that limit FDI or restrict availability of work permits for service providers raise the costs that Rwandan firms pay to acquire critical services.[64] The government might therefore consider combining membership in the ITA with commitments to liberalize services trade. WTO members are currently in the process of exchanging requests and offers to liberalize services under the General Agreement on Trade in Services (GATS). The deadline has been extended to May 2005. Commitments in the following sub-sectors would support Rwanda's ICT strategy:

- *computer-related services:* consulting related to hardware installation; software implementation services; data processing; data bases
- *telecommunications services:* data transmission, data processing, database retrieval; private leased circuits; electronic mail, voice mail, and enhanced value-added facsimile services; on-line information services; electronic data interchange
- *financial services:* provision and transfer of financial information

[63] A small part of this difference is due to imports from preferential trade partners in COMESA.
[64] For example, current regulations subject work permits for a foreign firm's expatriate staff to quantitative restrictions. (See http://www.minecofin.gov.rw/investors/investment_incentives.htm.)

- *professional services:* engineering services; integrated engineering services.

7.19 This list is not meant to be exhaustive. Trade negotiators should consult with the private sector to determine which services inputs are particularly important, and then incorporate these sub-sectors into Rwanda's GATS offer. A promise to place no restrictions on either national treatment (i.e., treat foreign firms no worse than domestic ones) or non-discrimination (i.e., treat all WTO members equally) would lock in liberalization. Negotiators should, at the same time, identify services that the Rwandan ICT sector believes it can export, and build those into Rwanda's requests. Given the similarities in economic structure and needs, the regional market would appear to be the natural focus for Rwanda's ICT services exports.

7.20 COMESA and the EPA negotiations provide two other fora for negotiating access to regional ICT services markets. COMESA members have taken fewer steps towards comprehensive services trade liberalization to date than goods liberalization, but some work has begun. COMESA members have promised to abolish visa requirements for nationals of COMESA countries. This should facilitate intra-regional movement of service providers. A number of COMESA countries, including Rwanda, are participating in COMTEL, an effort to establish a region-wide telecommunications provider. But other than these two measures, COMESA has advanced no initiatives to liberalize intra-regional services trade. Rwanda could enhance its ICT strategy by taking the lead within COMESA in pushing for ICT services liberalization.

7.21 Most look at the EPA negotiations solely as an avenue for liberalizing trade between Africa and Europe, but this forum provides Rwanda with some degree of leverage with non-LDCs such as Kenya and Mauritius to open up regional ICT markets. Unlike those countries, Rwanda already enjoys duty- and quota-free access to the EU by virtue of its LDC status. Rwanda might exchange its support for goods liberalization in the EPA in return for EU countries' commitments to open their services markets of relevance to Rwanda and especially to provide for mode 4 movement of labor, including unskilled workers.

7.22 ***More attention should be given to bringing trade into the ICT Strategy.*** Although many donors are supporting Rwanda's ICT strategy, their assistance programs often ignore international linkages. For example, part of a recent $20 million World Bank credit funds the building of administrative capacity to implement the ICT strategy. Project documents reveal little attention to the linkages between international trade, trade policy, and developing an ICT sector in Rwanda. The analysis presented above reveals two trade policy measures the government can take to promote development of an ICT sector. Closer coordination between those working on trade and those working on ICT issues is important to ensure that these linkages are fully recognized and exploited.

ACCESS TO OVERSEAS MARKETS

7.23 ***In existing preferential agreements with developed countries and those under negotiation the key remaining market access issue for goods relates to rules of origin***. Rwanda has preferential access to all of its main markets in developed countries. However, these preference schemes are currently of little value because Rwanda exports few products that receive preferences. Exports remain dominated by products, coffee and tea, for which no duties are levied in the main overseas markets of the EU and US. Table 7.4 shows that of exports to the EU, the major export market, only 6 per cent were eligible for preferences in 2002 and only half of these actually requested preferences. Similarly only 2 per cent of exports to the US were eligible for preferences and only 0.3 per cent requested preferences. The reasons for the underutilization of preferences are likely to be low preference margins relative to the costs of satisfying and proving compliance with the rules of origin. The value of the preferences requested in the EU (the value of trade receiving preferences multiplied by the margin of preference) amounted to one third of one per cent of exports to the EU. The value of preferences in the US is even smaller. Japan is not a significant destination for Rwandan exports at present.

Table 7.4 The Impact of Trade Preferences in the EU, Japan and US for Rwanda Exports (2002)

	EU	US	Japan
Total Exports ($000)	20190 (100)	3072 (100)	9 (100)
Exports MFN duty=0 ($000)	18934 (94%)	3002 (98%)	9 (100)
Exports eligible for preferences ($000)	1256 (6%)	68 (2%)	0
Exports requesting preferences ($000)	672 (3%)	10 (0.3%)	0
Value of preferences (as % of exports)	0.33%	0.01%	0
Number of products exported (8 digit level)	106	13	2

Sources: Eurostat, USITC and Japanese Ministry of Trade

7.24 Hence, ***preferences in rich industrial countries are not playing a substantial role in stimulating Rwandan exports at present***. The issue with preferences is whether they could be a factor which helps to facilitate the shift to a more diverse export base. The table also contains a row of information which highlights the highly concentrated nature of Rwandan exports to these key industrial markets. In 2002 Rwanda exported 106 out of more than 10,000 products in the EU tariff classification. Only 13 products were exported to the US[65] and just 2 to Japan. Could preferences offset to some extent the extremely high costs that potential Rwandan exporters face in accessing global markets, due, for example, to high transport costs, the costs of satisfying standards and so on? A key issue here is more liberal rules of origin.

7.25 ***EU rules of origin are product specific and complex.[66]*** The EU is currently reviewing its rules of origin and has accepted that the current rules have been a constraint in meeting its

[65] A recent study on AGOA (DMS (2004)) reports that Rwanda has passed the necessary regulations to satisfy U.S. government requirements. But there has been virtually no use to date of AGOA preferences. The AGOA study calls for focusing on handicrafts. As of September 2004, Rwanda had not yet applied for AGOA's special provisions granting duty-free access to folklore articles or handmade/handloomed textiles and apparel. While not essential (MFN tariffs on some of these products are low), qualifying for these provisions would be useful, especially for textiles. DMS's study identifies the need to improve quality of products as well as their packaging and design. In some ways the handicrafts promotion proposal overlaps with the government's ICT strategy—handicrafts producers mention that the lack of websites and lack of electronic payment facilities for on-line sales.
[66] Rules of origin specify the requirements a product must satisfy to be deemed as originating in a partner country and thus eligible for reduced or zero duty rates. However, the way that these rules are specified and applied has important implications for the impact of the trade agreements. Overly complicated and restrictive rules of origin constrain the ability of producers to benefit from trade preferences. Rules that have high administrative costs, for both producers and authorities in the preference receiving country, related to proving compliance, will reduce the gains that can be achieved from preferences.

development objectives.[67] Within this review and in the negotiations for the Economic Partnership Agreement, Rwanda should strongly push for

- Simple rules of origin common across products
- a liberal rule of origin for clothing (allowing use of third country fabric) similar to that for LDCs under AGOA, which, given the existing air transport links to Europe, could stimulate some investment in the clothing sector to exploit relatively low Rwandan labor costs.
- that producers in Rwanda be given the option of satisfying *either* a value-added rule *or* a change of tariff heading rule
- regular exporters should be able to self-certify conformity

7.26 ***Regional market potential needs to be recognized in the export promotion strategy.*** Trade with neighboring countries amount to a small share of total exports, reflecting, in part, the current structure of Rwanda exports and the dominance of coffee and tea, which are also key export products for regional neighbors. However, these countries could be important markets in the strategy of diversification and export of new products. Similarity of tastes and living standards would suggest that neighboring countries could be important markets for Rwandan horticulture and other non-traditional agricultural products. As an example, there is currently two-way trade in beer between Rwanda and Burundi, reflecting a demand for variety within the region. Within a regional context, similarity of tastes is likely to lead to similar regulatory approaches to health and safety and hence similar standards, which may require lower levels of investment to satisfy than the higher standards of rich countries.

7.27 ***Effectively implemented regional trade agreements with rules of origin that are simple to apply would support regional trade integration.*** The regional strategy will be more effective if existing (and future) regional agreements are fully implemented with zero regional tariffs on all products of interest to Rwanda and non-restrictive rules of origin. Most countries apply the COMESA agreed value-added requirement of 35 percent, but Uganda requires 45 percent value added. This constrains the access of Rwandan exporters to Uganda under the COMESA agreement. A further major problem is that the COMESA rules of origin require that imported inputs be valued c.i.f. although transport costs incurred in transit through other member states can be deducted. When these transport costs cannot be ascertained, however, the c.i.f. value in the country in which they are processed must be used. In practice, this is what is happening in Rwanda. For most products the invoice that customs uses for valuation purposes will not contain information on transit transport costs. Hence, this discriminates against land-locked countries, such as Rwanda, facing high transport costs, relative to countries such as Kenya and Tanzania. Thus, Rwanda should request that imported materials be valued f.o.b and that the original agreement on rules of origin, which also allows for a change of tariff heading rule as an alternative to the value added requirement, should be fully and consistently implemented by all members.

7.28 ***Important gains can be achieved if regional integration is used to leverage improvements in transportation and the business climate.*** The trade policy situation with regard to regional partners is, in a high degree of flux. Rwanda is a member of COMESA but has also applied to join SADC and the EAC. Uganda and Kenya are members of COMESA and the EAC, whilst Tanzania is a member of the EAC and SADC. A recent study by Imani Development on these regional integration options finds that the benefits of regional integration will come less from duty-free access to regional markets and more from both lower transportation costs and an improved business climate. This suggests that Rwanda should use its participation in COMESA (as well as EAC and SADC, if it joins those arrangements) to streamline border clearance procedures in the region and improve the regional

[67] http://europa.eu.int/eur-lex/en/com/cnc/2003/com2003_0787en01.pdf

transportation infrastructure. The authors of the study also identify a number of hazards in the common external tariffs that have been proposed, namely a bias against exports inherent in the COMESA CET and large variations in SACU tariff rates across industries. Both create disincentives to use resources most productively. If Rwanda chooses to join one of the regional customs unions, negotiators should push for a reduction in the highest tariffs.

7.29 Here we discuss the potential impact on revenues of applying the COMESA common external tariff (CET) and also the impact of joining the EAC.[68] Table 7.3 shows that implementing the COMESA CET would reduce the current (trade weighted) average tariff in Rwanda from 17.5 per cent to 14.1 per cent. Tariff revenues would decline by 16 per cent from their present level and total trade taxes (tariffs and VAT) would fall by less than 6 per cent. This reflects that a range of raw materials that are subject to import duties in Rwanda would face zero duties under the COMESA CET. The table also shows that total trade revenues would fall by only about a further 2 per cent if Rwanda were also to join the ITA and reduce tariffs on raw materials to zero as well as join the COMESA CET, reinforcing that many of the tariffs that would be reduced under the COMESA CET are raw material products. The impact of joining the EAC and applying the EAC CET would be more pronounced that the impact of the COMESA CET. Table 7.3 shows that in the EAC trade weighted average tariffs would fall to under 13 per cent, tariff revenue would decline by almost 25 per cent and total trade taxes by 9 per cent. However. These simulations do not take account of exemptions from tariff reductions that may be negotiated.

7.30 ***Multilateral trade negotiations are the route to improved access to growing markets in Asia and potentially to better prices for traditional exports.*** The dollar value of exports to east Asia has more than doubled since the early 1990s, which, given the decline in the total value of exports, entails that the share of these countries as a destination for Rwanda exports has increased from less than 3 per cent to almost 13 per cent of total exports. The principle expanding market for Rwanda exports has been that of China and the main product sector, minerals. Whilst exports to South Asia have declined in absolute terms the region remains a significant destination for Rwanda exports accounting for more than 5 per cent of the total on average between 2000 and 2003.

[68] This does not imply that joining either the COMESA or the EAC customs unions is an optimal trade policy for Rwanda. In neither case has agreement been reached (or even sought) on revenue sharing under a CET. Hence, rules of origin and customs checks will continue to be applied to intra-regional trade undermining a key potential benefit of customs unions – the ability to remove border procedures for members' products for trade policy purposes.

7.31 The key feature of access to markets is Asia is that it takes place on an MFN basis such that the outcome of the current multilateral trade negotiations are the mechanism by which Rwanda can improve access to these markets. At present, the key product exported to Asia, minerals, is subject to zero MFN duties. However, there are two ways in which lower duties for other products may support Rwandan export prospects. Firstly, by reducing tariffs on products that Rwanda currently exports and products that are the focus of export diversification efforts. Table 7.5 shows the current applied and bound duties on these key products for selected countries. Markets in Asia are very large, but key products for Rwanda face high tariff barriers. Reducing these barriers through multilateral negotiation would offer the prospect of increased opportunities for Rwandan exporters. Second, for traditional commodities, even if the reduction in tariffs in Asia does not lead to new exports there could be a positive impact on Rwanda through the impact on world prices. Reductions in tariffs in India and China that raise the demand for imports could lead to higher world prices for tea and coffee to further support the strategies for these sectors.

Table 7.5: Applied and Bound Tariff on Products of interest to Rwanda

		Coffee	Tea	Vegetables	Fruit	Fruit Juice	Handicrafts
China	Applied Rate	31.6	45.3	28.2	39.1	44.1	44.1
	Bound Rate	14.3	15.0	10.6	18.5	19.2	13.0
India	Applied Rate	100.0	100.0	30.3	35.3	30.9	29.7
	Bound Rate	133.3	150.0	105.4	96.8	75.0	36.5
Indonesia	Applied Rate	4.0	5.0	4.9	5.0	5.0	11.5
	Bound Rate	44.5	52.5	46.7	47.7	54.3	36.6
Thailand	Applied Rate	40.0	45.0	58.8	56.1	45.0	49.3
	Bound Rate	90.0	90.0	46.5	39.3	37.0	29.0
South Africa	Applied Rate	2.9	400c/kg	10.6	7.6	19.4	17.8
	Bound Rate	119.0	170.0	34.3	21.1	49.5	18.9
US	Applied Rate	0	0	4.8	3.4	7.4	5.3
EU	Applied Rate	0	0	13.0	8.1	23.3	4.8

The fact that bound rates are lower than applied rates for China reflects commitments made in the WTO accession process which will be implemented over time.

7.32 ***The EPA process offers the prospect to negotiate increased levels of technical assistance, to lock-in domestic reforms and obtain improvements in areas such as recognition of certificate of conformity with ET standards.*** Rwanda is involved in negotiations with the EU on an Economic Partnership Agreement. The 2000 Cotonou Agreement calls for establishing economic partnership agreements between the EU and regional groupings of ACP members. The EU intends EPAs to be tools for economic development and negotiations will cover a broad range of trade and trade related policies beyond tariffs. A key element will be that countries such as Rwanda will have to offer duty free access to imports from EU countries. This will have an important effect on tariff revenues. Table 5 confirms this by showing that if an EPA were implemented alone then tariff revenue would fall by more than one third and total trade taxes by 12 per cent.

7.33 In contrast, the EPA will bring Rwanda no new market access for goods. This does not mean that Rwanda has nothing to gain from negotiating an EPA. Instead, it implies that Rwandan negotiators should push for gains in other areas besides market access. In addition to more development friendly rules of origin, Rwanda could use the EPA negotiations to promote greater EU recognition of conformity assessment certificates issued by testing firms located in Rwanda or in countries that are part of SADC, EAC or COMESA (all of which are working towards greater regional standards integration). In addition, in the context of “aid for trade”, Rwandan negotiators should push for technical assistance targeted directly at facilitating trade flows and overcoming supply-side bottlenecks. Finally, the EPA could be a useful mechanism for “locking-in” many of the domestic reforms that Rwanda has implemented and additional reforms that are required. This provides a signal to international as well as domestic investors of a high degree of certainty and predictability regarding the business environment.

7.34 ***The EPA Negotiations also could also lead to better access for services in the EU and regionally and improvements in temporary migration.*** Although the EPA cannot deliver greater access to European markets for trade in goods, it can potentially improve conditions affecting trade in services. The Cotonou Agreement included no firm commitment to negotiate liberalization of services trade. A subsequent joint ACP-EU communiqué indicates a willingness to explore the issue during the negotiations, however. What type of liberalization would be worth discussing? One obvious issue is easing restrictions on temporary migration. The flow of remittances from Rwandans working in Europe can play an important role in boosting incomes of poor households. Liberalization of Rwandan rules on issuing work permits can facilitate new FDI in Rwanda. A second area worth exploring involves what might be considered anti-competitive practices by European tour operators and airlines. Some argue that African tour operators, airlines, and other tourism service providers are unfairly blocked from reaching potential foreign tourists because firms in industrial countries collude in the operation of computer reservation services and the provision of tour packages.[69] The EPA negotiations may provide a better forum for discussing these issues than the WTO since the GATS does not address anti-competitive practices directly and does not cover passenger air transportation at all.

CAPACITY TO DEFINE, NEGOTIATE AND IMPLEMENT TRADE POLICY OBJECTIVES

7.35 ***Rwanda's trade policy making institutions are fragmented.*** Many key trade agencies are either new (the standards bureau), recently reorganized (RIEPA), or have new staff (the foreign trade unit in MINICOM). The private sector is not sufficiently organized to help the government identify and overcome trade barriers, foreign or domestic. Analytical advice is typically provided by external (often foreign) consultants. This fragmentation prevents Rwanda from developing a trade policy that promotes its development needs and from supporting its trade policy effectively through its commercial diplomacy. Priority areas are coordinating capacity; analytical capacity within and outside of government; and capacity of private sector organizations.

7.36 ***Rwanda should build a single interagency process that is capable of treating different negotiating fora as simply alternate means of achieving the country's trade policy goals***. Developing and implementing a trade policy requires coordinated participation of a wide range of agencies. No single government ministry can address all policy issues that involve or influence international trade. The existing IF committee structure can provide the foundation for a permanent inter-ministerial coordinating process. Although the commerce and finance ministries naturally play a strong role in setting trade policy, the government might consider anchoring the inter-ministerial process in the President's office, both to prevent the process from becoming dominated by any one ministry's perspective and to more effectively resolve conflicting political priorities. Some countries have established separate institutional structures to manage different sets of negotiations.[70] At best this leads to duplication; at worst the different committees work at cross-purposes.

7.37 ***The capacity to assess the impact of various trade policy options needs to be raised both in and out of government.*** The government needs to have the capability of assessing how negotiations help or hurt the Rwandan economy. Negotiators need to bring results from these analyses to bear on specific initiatives raised by their counterparts from other countries. At a minimum, the government needs a core team of people able to conduct partial equilibrium simulations and cost-benefit analyses

[69] See for example, Vittorio Gerosa, "Tourism and Trade in Africa: How to Benefit from the Doha Round of Multilateral Negotiations," paper presented at the International Symposium on Liberalization and Trade in Services, Madrid, 22-23 March 2004.
[70] For example, Zambia has separate interministerial committees to oversee issues related to the WTO, EPA negotiations, COMESA, SADC, and AGOA. The Kyrgyz Republic assigns responsibility for regional trade agreements to the Vice Premier while the trade ministry handles WTO issues.

of proposed trade policies. Training officials to use WITS—software for trade policy analysis developed by UNCTAD and the World Bank—could be a first step. Installing a donor-funded resident advisor, paired with a local official can also help in the short run, especially to support negotiations, where rapid responses are critical. In the medium run, donors can help develop the expertise of existing government officials by financing their participation in trade courses and by financing staff exchanges with regional organizations, such as the COMESA Secretariat or UNECA.[71] In the long run, the presence of an independent economic policy think tank is critical to maintaining analytical capacity. Throughout the region, the African Capacity Building Foundation (ACBF) has financed think tanks that play an active role in shaping national trade policy debates (e.g., BIDPA in Botswana and ERSF in Tanzania). ACBF recently launched a $4.0 million grant that will in part support the Rwanda Institute for Policy Analysis. Donors might explore building this institute's ability to conduct trade policy analysis.

7.38 ***There is a need to strengthening private sector organizations***. Exporter organizations lack the capacity to advance their members' interests, whether through participation in trade policy formulation or providing business services to their members. In order to sustain itself over the long term, a business organization must provide services that its members find valuable—and therefore worth paying for. Perhaps the most critical service is to help firms identify new foreign market opportunities and produce goods that satisfy preferences of foreign consumers. Another service that an exporter organization could provide is assistance using intellectual property rights to build product identity and protect innovations. Donors can help strengthen existing organizations through training in these technical issues as well as building skills needed to effectively manage a membership organization.

CONCLUSIONS AND RECOMMENDATIONS

7.39 The main conclusion that we derive is that Rwanda's own trade policies and those of other countries, which affect the access of Rwanda exporters to overseas markets, are not a major constraint on the ability of Rwanda to generate sustained increases in trade. ***Supply side limitations are the primary barrier to greater participation in global markets.*** Nevertheless, ***there are a number of measures that can be taken to improve the trade policy environment and so facilitate greater activity in trade.***

1) Rwanda is facing a number of important trade policy issues and negotiations at the multilateral level (WTO Round), at the regional level, and in relations with the EU, but has very limited capacity to analyze national interests and formulate these in terms of negotiating positions. There is strong case for technical assistance to strengthen analytical capacities and support negotiating capacities. In preferential and regional agreements Rwanda should be pushing for more development friendly rules of origin and progress on opening up services.
2) Trade policy could be used to support development by a) reducing to zero duties on raw materials and striving for lower tariffs on finished products. This could be achieved as part of an aggressive approach to the Doha round which if it leads to significant reductions in duties in countries in Asia would offer improved market access opportunities for Rwandan exporters and potentially higher world prices for commodities of interest to Rwanda. And b) by joining the WTO Information Technology Agreement and offering to liberalize IT-related services sectors through the GATS. This would support and enhance the ICT strategy. Such a move would provide a clear signal to

[71] The University of Dar es Salaam recently launched a certificate program in trade and trade policy analysis (implementing a recommendation of an early IF needs assessment). Sending officials to this program could be part of a medium-term strategy for building capacity in the government. This program might also serve as a model for a similar curriculum at Rwandan educational institutions.

investors both within and outside of Rwanda of the government's commitment to a strong and open policy towards IT.

3) There is a need for technical assistance to improve the quality of trade data. Reliable data is a necessary input into careful trade policy analysis and to a well designed export promotion strategy.

EXPORT PROMOTION AND EXPORT DEVELOPMENT

Introduction

7.40 ***Effective export promotion activities will be required to provide for sustained export growth and for export diversification towards non-traditional exports.*** Export expansion is an absolute necessity for reaching the objectives defined in the PRSP and the 2020 vision. Further, export promotion and export development activities will play an important role in ensuring that the benefits of trade expansion reach the poor through specific actions that i) identify and promote sectors (or "niches" in sectors), with good export potential, to which poor producers can contribute, ii) promote backward linkages between experienced exporters and rural and poor communities in order to introduce them to world markets, iii) promote business groupings among poor producers; and iv) provide some key trade support services for product adaptation for export and, more particularly, capacity building for export operations.

7.41 ***Current export promotion and export development activities and initiatives are fragmented, uncoordinated and incomplete.*** It is only recently that the government started taking specific actions in order to implement its declared policies concerning export promotion. Indeed, the annual progress report on the PRSP in 2004 noted that *implementation of the export promotion strategy is well behind schedule*. However, the government has recently adopted of an export promotion strategy and the creation of a new export promotion institution. Whilst there has been some export promotion and export development work during the last few years, mainly as a result of important technical cooperation projects funded by the donor community, these activities and initiatives are fragmented uncoordinated and incomplete.

7.42 ***The key challenge is to develop and implement a comprehensive, coordinated export promotion effort***. There is a desperate need for a coordinated export promotion effort, the implementation of a clear and comprehensive export promotion action plan which contains a medium-term strategy of export diversification. Experience of export promotion in other developing countries suggests that many are floundering on weak implementation and monitoring. This section describes the current trade support network in Rwanda and export promotion policies, highlighting where further improvements are required for the export promotion strategy to be effective in stimulating exports and poverty reduction. Experience from elsewhere in Africa highlights the poor performance of export promotion agencies in many countries and the difficulties in implementing successful export promotion strategies.

Export Promotion Policies and the Trade Support Network

7.43 A successful export promotion effort is based upon two main prerequisites: First, an appropriate enabling environment, with a regulatory structure which supports investment, business development, trade and growth and provides for an open economy free from anti-export bias with a government commitment to export promotion. Second, the existence of a trade support network, which assists the export community in its operations and provides the necessary services to exporters.

7.44 ***Recognition of the main barriers to exports, both domestically and in overseas markets, is an important element of a well-developed export promotion and export development strategy.*** Rwanda has made substantial progress on a number of issues, such as legal reform, privatisation, customs reform and modernisation and trade liberalisation, to improve the underlying environment in which exporters can develop. However, there are serious structural obstacles and constraints that reduce the country's productivity and competitiveness, in particular, high transport costs to reach world markets, the high cost of energy and energy shortages, the lack of irrigation and water management systems and the large number of farmer smallholdings and lack of organization in the rural sector. There remains scope for further improvements in the regulatory framework. These factors are substantial obstacles to export expansion and will hamper any export promotion efforts until they are effectively addressed.

The existing trade support network

7.45 The trade support network comprises the various services available in a country that enhance the competitiveness of its export products or services. This network is concerned with issues such as trade information, market research, product packaging, labelling and design, quality assurance and certification, trade finance, capacity building for exporters, promotional support such as participation in trade fairs abroad, organisation of trade missions or solo exhibitions, advertising as well as a network of foreign trade representation. Other issues include the coordination and monitoring of export promotion efforts both at the national and at sector level. The service providers are usually a mix of state, parastatal institutions and private trade associations or consulting firms.

7.46 ***The key institution with trade support functions is now the Rwanda Investment and Export Promotion Agency (RIEPA***), created in 1998 with an enlarged mandate since October 2004. Its original mandate included export promotion but the focus was on investment promotion. This led to a lack of resources and as a result very limited export promotion. This is expected to change with the recent recognition of the need to enhance export promotion efforts. RIEPA's new mandate and future activities will be analysed and assessed in the next section.

7.47 ***The Rwanda Private Sector Federation (RPSF) is also supposed to have trade support functions but is constrained by lack of resources in representing the interests of exporters.*** The Federation includes 23 sector business associations, including the Rwandan Exporters' Association,[72] and is expected to represent the interests of the private and business sector in the formulation of the government's trade and other policies through the Public-Private Sector Forum, but this takes place just once a year. The Federation's terms of reference stipulate that it should facilitate members' participation in international trade fairs, organize training on business development, provide business information and inform of investment opportunities. But lack of resources prevents it from effectively fulfilling this mandate.[73]

7.48 The Centre d'Appui aux Petites et Moyennes Entreprises du Rwanda (CAPMER) a non-profit organization created in 2002, targets SMEs and micro-enterprises, but its management considers export promotion a core activity with 30% of all activities being export-oriented. Assistance is provided in three main areas: feasibility studies and formulation of business plans; capacity building, mainly in the form of seminars and promotional activities; establishing contacts with foreign businesses for possible joint ventures and transfer of know-how.[74] CAPMER has also a small Documentation Centre. CAPMER's activities are partly funded by donors and partly by the income

[72] AREX is an association of a small number of non-traditional exporters (8 members) that account for less than 1% of the country's exports. It has no resources and no activities of a trade support nature.
[73] The Federation is partner in a DFID funded project (the Business Linkage Challenge Fund), which encourages and supports business linkages between enterprises of developed and developing countries for transfer of know-how, joint ventures and investment.
[74] It is the counterpart to a Dutch-financed project promoting joint ventures between Rwandan SMEs and Dutch enterprises in agribusiness, energy and tourism.

from the services it provides (cost-sharing) to its customers. Other organisations that have an important role to play in facilitating and promoting exports include the National Bureau of Standards and the Banque Rwandaise de Développement (BRD).

7.49 ***Most export support is being undertaken within donor funded assistance projects***. In recent years, important trade support work has taken place in the form of donor-funded technical cooperation programmes and projects that fill the gaps created by the lack of resources and expertise of both government and business sector bodies in Rwanda. However, a number of major projects are nearing the end of their schedules duration so that there is an important issue of the sustainability of export promotion and export development efforts.

7.50 ***There is little coordination among these different projects***. Whilst many of these projects are working exactly along the lines of an export promotion agency, providing support, advice and training to enterprises, undertaking market studies for new products, being a source for relevant market information and so on, there are few efforts to bring them together in the context of an overall export promotion strategy. This will require a high degree of cooperation and contact between RIEPA and these projects, which at present does not exist. Although the Advisory Group of ADAR, a major USAID project in the field of export development, includes the main Ministries, staff feel there is insufficient government support. ADAR staff was not aware of the existence of the export promotion strategy that has been developed, although the major part of their work concerns the promotion of new non-traditional exports, particularly in the horticultural and agribusiness area.

RWANDA'S EXPORT PROMOTION POLICIES AND STRATEGY

7.51 ***The key recent development has been the formulation of an export promotion strategy***, which has been endorsed by the Cabinet. Parallel strategies have been formulated for sectors identified as priorities coffee, tea, tourism and ICT. The monitoring of the implementation of the Strategy is entrusted to the Export Promotion Commission (EPC), which includes representatives of MINICOM, MINAGRI, RIEPA and the Chairman of the RPSF and reports to the Cabinet. The strategy document identifies important strategic orientations for the export promotion effort of the country and describes the new mandate and the operation of RIEPA, as the institution that will be the focal point in charge of the implementation of the Strategy. The three core strategic orientations are:

1. ***Reinforcement of existing export sectors***, such as coffee, tea and tourism by boosting production and maximizing quality;
2. ***Incubation of new export sectors*** by promoting entrepreneurship, providing incentives and proceeding with policy reforms;
3. ***Focus on high value, innovative products and services*** to be identified through a thorough export potential assessment.

To reach these goals, the government intends to work closely with the private sector and take demand- and market-driven initiatives. The second part of the strategy contains a brief description of RIEPA's new functions and its relations with other key organisations such as OCIR-Café, OCIR-Thé, ORTPN and BRD. These relations are described schematically as "The export promotion triangle" and some brief explanations are given on how the strategy will be coordinated and implemented.

7.52 ***The export promotion strategy clearly demonstrates the commitment of the government and provides general strategic direction. However, it lacks the necessary scope and a number of issues must still be dealt with.*** The export promotion strategy document is too general and not sufficiently comprehensive, lacking the scope of a real strategy. A number of important issues are not mentioned or dealt with, or are left to be tackled in the future. A key element of any comprehensive export strategy is the identification of the main constraints and bottlenecks facing exporters. This analysis is lacking.

7.53 ***The empowerment of RIEPA and the extension of its mandate are offered as the main solution for achieving the three core strategic goals.*** It is clear that RIEPA is to have the central role and be the driving force ("fer de lance" as mentioned in the draft Law) in export development. However, the proposed implementation structure is not detailed enough and could be confusing. A figure of $1.95 million is allocated for the first 12 months to RIEPA's operation but there are very few details on why and how these resources are going to be spent and no indication of the expected concrete outputs.

7.54 ***RIEPA's new mandate could overlap with the mandates of other institutions*** such as OCIR-Café and OCIR-Thé (particularly after privatisation and loss of production functions) as well as with CAPMER, NBS and RPSF. A coordinating role for RIEPA is defined but the actual modalities are not made clear. In addition, important export promotion activities are undertaken in donor-funded programmes with resources much higher than those foreseen for RIEPA, although no mention is made of these programmes in the EPS. This will require a significant coordinating effort by RIEPA and a willingness of other relevant institutions and programmes to cooperate. One way to proceed would be for RIEPA to define clearly its relationship with other existing trade promotion bodies by means of memorandums of understanding that spell out the responsibilities of each institution.

7.55 ***RIEPA also needs to explore ways of ensuring sustainability for the future through the establishment of an Export Development Fund.*** This fund would allow export development activities to continue after the completion of donor-funded projects. It appears that the European Union has earmarked about Euros 2 million for export development purposes within the framework of the STABEX project. This could become the seed money for the establishment of the Export Development Fund to be managed by RIEPA. In the meantime other solutions could be explored for ensuring the sustainability of the Fund by identifying possible sources of income (see Box 7.2 for a description of the functions of an Export Development Fund).

Sector Strategies and Export Diversification

7.56 Among the tasks enumerated in RIEPA's "Medium Term Expenditure Framework" is the development of sector strategies. Three such strategies exist for the most important export sectors, coffee, tea and tourism. As instruments for export promotion action, sector strategies can play an important role by establishing a public-private working relationship to identify and address bottlenecks and constraints and undertake targeted priority actions. For that purpose, there is a need to be very specific. Of the three Strategies, that for Tea is the best example as it contains very specific objectives, an implementation action plan and action matrix. It should be taken as a model for other sector strategies. This document was apparently prepared in close cooperation with all stakeholders. The tourism strategy is also fairly specific but only has a tentative budget and investment objectives. The coffee strategy is a more general document that only defines the main strategic options but does not contain a detailed implementation action plan. The strategy does not refer to other important activities taking place in the coffee sector in the country, such as the development of specialty coffee (through the PEARL project) or the opportunities and extension services existing in the PDCRE project.

Box 7.2: Export Development Fund
An Export Development Fund provides the means to support an export promotion institution (not on an exclusive basis, other institutions may also be involved) These actions involve partial funding for a variety of export promotion and/or export development activities, such as, participation in international fairs and exhibitions, participation in trade missions, organisation of buyers/sellers meetings, organisation of promotional events abroad (such as in-store promotions), carrying out feasibility studies for new product development, carrying out market studies and assessment of international demand , consultancy services for product adaptation for export (for ex. Design, packaging, labelling), funding for advertising in foreign markets, funding for capacity building for exporters (training seminars, on-the-job training, internships abroad in foreign trading companies, study tours for awareness creation, etc.)

Usually the funding is done on a cost-sharing basis, either 50%-50% or other percentages, which may vary according to the activity. They may also vary if the beneficiary is an individual exporter (higher percentage of own funds) or an exporter's association or a product/sector association, which may benefit of a larger participation of the Fund in the total charge. The allocation of the funding is made by a Steering Committee, whose members could also sit on a High Export Council (in the case of Rwanda it could be an expanded Export Promotion Commission). The criteria used normally should be the priorities established in an Export Promotion Strategy or Action Plan. The Fund is not expected to replace banking services but, on the contrary, to provide funding for actions that the banks do not fund. There are various ways to secure sustainability of such Funds. One of the most common is a very small levy on selected luxury imports or similar other levies or taxes that provide a regular income and are compatible with WTO regulations.

7.57 **The role of OCIR-Café and OCIR-Thé in export promotion activities will need to be clarified as they adjust to privatisation in these sectors and to the commodity strategies that have been developed.** Currently, the most important exporting companies in the country are selling coffee and tea. There are five exporters of coffee although some new small exporters and cooperatives are now emerging as a result of privatisation. There are two exporters of tea, OCIR-Thé and Sorwathé. Eventually, it is expected that all factories of OCIR-Thé will be privatised. There are a few regular exporters in other areas (pyrethrum, minerals, and horticulture) as well as a number of occasional exporters. The number of regular exporting companies is estimated to be around just thirty.

7.58 OCIR Café's main service to exporters is a quality control scheme. Quality conformity certificates are issued and are part of the export license, which is also delivered by OCIR-Café. These certificates are, however, not considered as satisfactory evidence by overseas importers who buy mostly on the basis of samples. OCIR-Café provides some promotional activities but only 10% of its annual budget is spent on such work.[75] Exporters see OCIR-Café as providing extension services and possibly offering guarantees to banks for obtaining export finance, but it does not provide them with any significant assistance in their export operations.

7.59 OCIR-Thé also provides for quality control (there is a laboratory for testing samples of own production) and some promotional work. There is a marketing department (10 staff) and the organization participates in international fairs, but currently only exhibiting own production. The planned privatisation of the tea factories is expected to entail that future work will concentrate more on export promotion, raising value added, product development and improved quality control. OCIR-Thé considers itself responsible for the implementation of the "Export Strategy for Tea".

7.60 ***Although export diversification is a key development priority there is no export diversification strategy***. Much preparatory work has already been undertaken to try and identify new export products, but there is no comprehensive export potential assessment study taking into account

[75] OCIR-Café's budget has been financed since August 2004 by a levy on all exports of green coffee calculated at 3% of the f.o.b. Mombasa price.

both supply factors and constraints and the evolution of world demand. There is no strategy that identifies priorities for the development of new export products that might contribute to poverty reduction in the rural areas. A recent STABEX study identifies 8 products with export potential (castor oil, avocado oil, Cape gooseberry, chilli, small bananas, honey, and two medicinal plants); world demand for hides skins and semi-processed leather (wet blue) is strong. Handicrafts could be another potential export product with immediate benefits to poor rural areas.[76] There is no strategy or action plan for the development of these products. Box 7.3 provides a brief discussion of potential new export products based on the processing of domestic raw materials.

Box 7.3: An Example of Potential New Export Products

There are several ideas for the development of new export products using domestic raw materials. One example could be the creation of sustainable sericulture and the production of silk textile products, which could be exported to the USA under the AGOA scheme. Already initial actions have been taken with the assistance of the FAO and mulberry trees have been planted on an experimental basis in the region of Butare, which could constitute the foundation of a silk industry. The relative high value of silk products could overcome the high transport cost constraints, while the labour intensive character of the industry and its rural basis could contribute to poverty alleviation. A Rwandan businessman who has spare capacity in his textile mill reckons that this trade could develop to be a major foreign exchange earner (up to $25 million a year or about the same value as the total green coffee exports). The FAO has prepared a project proposal (total cost $382,000) for the development of sericulture in cooperation with the Institut des Sciences Agronomiques du Rwanda (ISAR), under the responsibility of the MINAGRI. The project document (see ANNEX II, Bibliography) indicates that a household in the cultivation area could earn about $1,800/year from this business and the export trade would benefit by using locally produced raw material. Funding for the proposal is being sought**.**

7.61 ***Whilst there is a strong desire to establish an EPZ, it is important to undertake a feasibility study of such a scheme and to evaluate the opportunity cost of the resources that will be required.*** A Draft Law has been prepared containing provisions for the establishment and operation of Export Processing Zones (EPZ). RIEPA's Medium Term Expenditure Framework mentions that such an EPZ will be established in Nyandungu, a site 4 kms away from Kigali International Airport. The creation of an EPZ is being viewed as a means to attract new investment, create employment and promote exports. In principle, an EPZ is one of the various tools available to promote exports and it should be part of a coordinated strategy having specific goals. An EPZ is an investment by the country's authorities and the opportunity costs of such an investment should be carefully studied, in terms of whether the resources could be used elsewhere to have a greater impact on poverty. The Strategic Action Plan of REIPA of December 2004 includes the free trade zone under the heading of "supporting export diversification" and identifies a budget of $1m, which encompasses a feasibility study. However, there is no discussion of how the EPZ will contribute to export diversification. If it is to be successful, the EPZ will have to address the key structural constraints that deter investment in export-oriented ventures in Rwanda including the price and reliability of energy supply and the cost of transport

7.62 The experience of other countries clearly shows that ***a key element for a successful EPZ is proper management*** and that sufficiently experienced and trained human and financial resources have to be allocated for that purpose. Avoiding fraud is one of the most important management tasks of an

[76].MINICOM has identified handicrafts as a priority sector but there is no evidence of an action plan. RIEPA or CAPMER do not seem to deal with handicrafts exporters although such products have been the focus of technical assistance regarding increasing exports to the US under AGOA.

EPZ.[77] There is no indication that these resources, human and financial, are available within RIEPA and/or the Customs Administration at present.

CONCLUSIONS AND RECOMMENDATIONS

7.63 ***Current export promotion activities and initiatives in Rwanda are fragmented, uncoordinated and incomplete.*** This leads to duplication of efforts and waste of resources. Rwanda's trade representation abroad is extremely limited.[78] There is no central and effective trade information service. There is an urgent need to develop, coordinate and systematise all these efforts and to establish priorities. RIEPA has been given the mandate to coordinate and monitor all export promotion activities but ***there is no clear policy on the obligation of other bodies engaged in export promotion to coordinate their activities with RIEPA.*** Lack of awareness of the EPS suggests insufficient consultation has taken place with stakeholders. A strategy for export diversification has not been clearly enumerated. There are no provisions and no medium or long-term plan for the sustainability of resources for export promotion and export development actions. This leads to the following key recommendations

1. There is a need for the Export Promotion Commission (EPC) to provide strategic direction to Rwanda's export promotion efforts. To be effective this body needs broad representation from the business sector and trade-related bodies, such as the BNR. The EPC should be able to propose solutions to constraints and bottlenecks hampering export trade and recommend policy decisions to the Office of the President. It should play the role of a High Export Council.
2. There is a need for an export diversification strategy and a plan to sustain export promotion activities over the medium term. RIEPA should define clearly its relationship with other existing trade promotion bodies by means of Memorandums of Understanding (MOUs). These will clarify who does what among the various institutions and avoid overlapping and waste of scarce resources. It should also establish close relations with important on-going technical cooperation projects to ensure that their activities are coordinated with, and contribute to, the overall export promotion effort.
3. RIEPA needs human and financial resources to be able carry out its mandate and implement the export promotion strategy**.** One way to attract highly qualified professionals who are badly needed for export promotion and export development activities would be for RIEPA to have an autonomous administrative status and salary scales equal to those offered in the business sector.

DEVELOPING STANDARDS MANAGEMENT SYSTEMS TO PROMOTE AGRO-FOOD EXPORTS IN RWANDA

Introduction

7.64 ***Efforts by Rwanda to expand and diversify its exports into, for example horticulture/floriculture, will necessarily require building the country's food safety and Sanitary and Phytosanitary (SPS) management capacities, and addressing the weaknesses that undermine product quality.*** Trade in agricultural products is governed by a growing array of food safety and

[77] Fraud mainly occurs when items produced under tax-free conditions for export are instead sold locally avoiding local taxes. Another type of fraud is when enterprises operating in EPZs import foreign goods, instead of processing their own, and re-export them as produced in the EPZ. The monitoring of EPZs is a time consuming and difficult task and requires important resources.
[78] The Chairman of RIEPA has recently launched an initiative that tries to fill this gap; he has identified local businessmen in particular countries (Canada, China, India and the US) that for a modest sum are willing to promote Rwandan exports in their respective markets. The intention is to expand this scheme to other important target markets.

agricultural health standards, see Box 7.4 for a description of the main trends. New standards, both in the public and private sectors, are likely to continue proliferating, accompanied by more stringent oversight mechanisms.[79] When standards and technical regulations are properly developed and enforced, they help to overcome market failures and can act as a catalyst for technical improvement, industry development and export performance. The tendency of international food supply-chains towards higher vertical coordination has important implications for developing SPS architecture. Buyers' concerns with quality, reliability of supply, credence characteristics, traceability and conformance with complex regulatory requirements introduce increasing challenges. As a late entrant, Rwanda should look for windows of opportunity in foreign markets, initially explore less demanding markets and encourage foreign direct investment or partnerships with experienced exporters in order to facilitate compliance with growing agricultural and food safety requirements.

Box 7.4. Growing sanitary, phytosanitary, quality and food management standards in industrialized countries	
Public Sector *New standards developed to address new concerns*: e.g. US Bioterrorism Act or EU application of Precautionary Principle to genetically modified foods or BSE cows. *More stringent application of standards: e.g.* EU new approach to pesticides, agro-chemicals and control of pesticide residues. *Regulatory authorities increasingly adopting a full supply-chain approach: e.g.* traceability requirements for animal products. *Increasing use of pre-approval arrangement based on pest-free or disease-free status, e.g.* APHIS substantial backlog of requests from developing countries for risk assessment before approval of some horticultural and fruits imports into the US. *Increase attention to HACCP systems*, mandatory in animal products.	**Private sector** *Movements in private standards, supply-chain governance and third party certification are increasing*, and influencing enormously agricultural production and marketing. Adoption of industry specific codes of practice, certification of good agricultural practices, and imposition of traceability systems are increasingly being imposed by retailers and buyers on suppliers. *Industry-wide protocols* (like Eurep-Gap) have proliferated, all of them embodying in a sector specific way the core requirements of good agricultural practices, good manufacture practices and HACCP. Food chain leaders require testing suppliers' produce for different health and safety hazards and to monitor production and management systems. Protocols involve some sort of third-party certification, and ISO 9000 certifications have become ever more widespread to supply EU markets. *There is a beginning of a similar trend in middle-income countries*, often as a consequence of investment of multinational distribution companies. An increasing number of these industry or company codes extend beyond quality and safety management to include *environmental and social safety standards*.

A VERY WEAK ARCHITECTURE FOR STANDARDS AND QUALITY

7.65 ***Very few Rwanda producers are able to support their production with quality management and control systems and there is virtually no infrastructure in place for documenting quality.*** Very few Rwandan products are being advanced by quality or consumer-oriented certifications such as EurepGap, fair trade, organic or social accountability. The challenge to introduce quality control systems into the supply chain is compounded by the structure of farming, with the typical exporter having to manage a large number of smallholder suppliers. Substantial progress in addressing standards and quality issues within production chains would be facilitated by a more effective organization of the agricultural sector. The Rwanda Bureau of Standards (RBS) has joined some international conformity assessment and certification organizations, but has not yet been able to create relevant services to support Rwanda's exports.

[79] The term standards should be understood broadly, covering mandatory technical regulations, defined by the government, and private-driven standards, voluntary but progressively more and more important for agro-food trade.

7.66 ***A standards information center has been recently established*** but does not currently collect and disseminate relevant information on standards in overseas markets to exporters. The notification and enquiry points required by the WTO agreements are not yet in place.

7.67 ***Current efforts tend to focus more on introducing consumer protection and anti-fraud measures than on export facilitation.*** Rwanda should consider separating the task of consumer protection from that of export facilitation. This would enable discussions with donor agencies to be better focused and would facilitate concentration in developing a trade facilitating standards architecture.

7.68 ***The system of setting standards in Rwanda is only marginally developed*** since RBS was established recently and there was no prior tradition of developing standards or taking part in international or regional standards setting activities. Rwanda has obtained membership in ISO, the international standardization organization, and taken the initial steps to select a relevant set of committees for Rwandan participation. A comparison of the level of participation of Rwanda with that of other selected developing countries shows that Rwandan participation already matches the performance of many of these other countries.

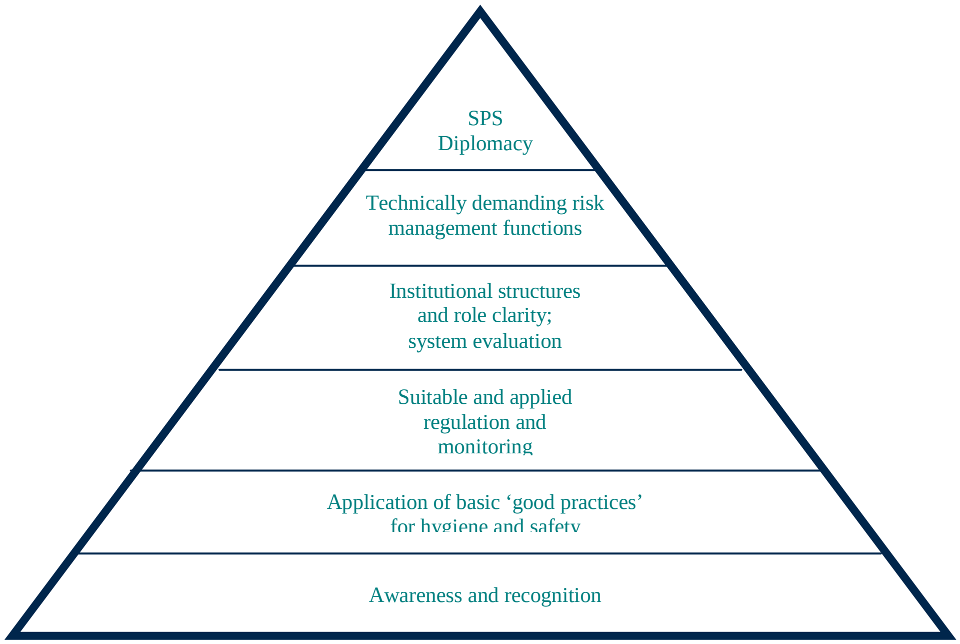
7.69 ***Awareness among the business community of the importance of standardization and quality management is severely lacking***. The involvement of the private sector in the future in any activity of standard-setting and dissemination of standard information is essential, as only the private sector can give a correct signal of where the priorities should be. There is great potential in using the information center of the Rwanda Bureau of Standards as a focal point for interacting with business people, who want a fuller understanding of how particular issues of standards may influence their existing and future trading relations with foreign customers.

DEVELOPING A SUPPLY-CHAIN STANDARDS STRATEGY: PRIORITIZING OBJECTIVES

7.70 ***A supply chain standards strategy or a national standards action plan should prioritize among the many different SPS functions, and focus on one or several higher risk/higher gain export-oriented sub-sectors.*** SPS management functions involve an agglomeration of diverse technical and administrative functions: standard-setting; application of good agricultural practices, HACCP and quality management; accreditation of laboratories and professionals; establishment of pest-free areas; testing of products for contaminants or residues; certification and verification of imported and exported products related to certain risks; WTO notifications; participation in international standard-setting processes. The complexity of functions makes it difficult to prioritize objectives. One way to simplify these tasks is to cluster these functions into a pyramidal hierarchy of functions (Figure 7.3).

7.71 ***The bedrock of standards system in Rwanda should be awareness, recognition and application of basic good practices for hygiene and safety.*** These functions not only involve the public sector but farmers and industry must be aware of major SPS challenges and opportunities. Good practices, food safety and quality management systems should be introduced into farming, and other activities of the production cycle. This would help manage effectively many potential SPS risks. Other risks that cannot be fully managed in a decentralized way require a proper regulatory and monitoring institutional structure (surveillance, emergency management and quarantine. These functions, which are placed in the middle of the standards hierarchy, require particular technical skills, equipment, well-defined procedures and recurrent funding. The functions at the top of the pyramid (such as, training in trade-related negotiating skills, participating in international standards-setting bodies, or developing laboratory facilities) undoubtedly are important, but the effective use of such capacities depends strongly upon the strength of the foundation and mid-level functions.

Figure 7.3 A Hierarchical Structure of Trade-Related SPS Management Functions



7.72 ***In Rwanda, a supply chain standards strategy should prioritize among the many different SPS functions, concentrating on the bedrock functions.*** Development of good agricultural practices, awareness, and HACCP and quality management at farm and enterprise levels is essential (Box 7.5). Focus should be toward one or several higher risk/higher gain export-oriented sub-sectors that require additional regulation and institutional structure. Progressively, demand for standards-related services will develop in the long term which will provide a signal of additional requirements in the fields of standards setting, participation in international bodies and equipment for product certification.

MAIN CHALLENGES IN STANDARDIZATION AND CONFORMITY ASSESSMENT SERVICES

7.73 ***Importance should be placed on meeting the demand of exporters for internationally recognized conformity assessment services such as testing, inspection and certification.***[80] As for any item of complex technological infrastructure, there will be considerable lead times in creating services for conformity assessment in Rwanda**.** In a context of such little demand, this is true irrespective of the amount of assistance which Rwanda may make use of in order to build its laboratories and other institutions. In the short term, the use of foreign product certification facilities would still be a suitable solution. Once demand grows, further analysis will be required to illustrate a specific necessity of a conformity assessment mechanism for a particular product or sub-sector.

[80] Conformity assessment services are the procedures to assess conformity with underlying standards. They consist of testing, sampling, calibration, certification and verification of products against prevailing standards. Accreditation bodies evaluate the performance, impartiality and competence of the conformity assessment providers.

7.74 ***The development of a national systems certification body could be of benefit for Rwandan exporters***. Currently in Rwanda, there is no certification of business management systems according to ISO 9001, ISO 14001 or other standards that specify requirements on quality management, environmental management, occupational health management or social accountability[81]. These types of management systems, to which buyers in remote markets can attach confidence in their effectiveness, can influence the exportability of any kind of product. Although seldom mandatory, in the progressively integrated structure of global supply-chains in horticulture, system certification is becoming more and more important. Developing a national infrastructure is more likely to facilitate the transfer of knowledge in this field and the spread of quality management systems relative to relying solely on international certifiers.

Box 7.5. Coffee Laboratory

"Our vision is simple: create partnerships that help farmers become self-reliant, pay a fair price for excellent coffee, and develop new models for protecting the environment," stated Paul Katzeff, co- founder and CEO of Thanksgiving Coffee Company. Teaming up with Timothy Schilling, director of the Partnership to Enhance Agriculture in Rwanda through Linkages (PEARL) project, Katzeff helped develop eleven quality control "cupping labs" to be built throughout Rwanda. Cupping labs give family farmers the tools necessary to improve the quality of the coffee they sell, thereby increasing revenues from an international market hungry for quality. "The cupping labs are the pivotal piece from which all other aspects of quality development get their meaning," Schilling stated from his office in Butare, Rwanda. "If a producer doesn't know what his coffee tastes like, how can he make it taste better?"

Source: Co-op America's Business Member, Thanksgiving Coffee, Helping to Rebuild Rwanda through Fair Trade Certified Coffee". Press release on specialty coffee, April 2004.

To create the cupping laboratories, apart from supplying the necessary equipment, requisites and procedures, Rwandan coffee tasters had to be identified, selected and trained. Experienced professionally certified coffee tasters from the USA agreed to donate their time and come to Rwanda to work with the selected candidates to be trained to run the cupping labs. Extensive instruction and trials took place, until the trainees were able to satisfactorily reproduce the evaluation and grading of their trainers. It took six trainers six weeks to achieve this result.

A quality control system was put in place in order to assure that the level of expertise of the cupping labs be maintained and rechecked on a regular basis. OCIR-Café operates the official coffee quality control laboratory in Rwanda, and all exports are sampled and tested in this laboratory. Here, however the grading is by far more basic and not required to be able to resolve as much fine detail, as that introduced by the PEARL project small distributed laboratories for specialty coffee testing.

While the cupping laboratories enable explicit tracking of a given sample back to the individual farmer, OCIR-Café takes their samples from lots consisting of 300 sacks of coffee. Representatives of coffee exporters reported some concern over the vulnerability of the OCIR-Café laboratory, since they found the expert competence to rest with just one individual OCIR-Café staff member. One start-up producer and exporter relayed that he planned to rely on the OCIR-Café laboratory, since he found it necessary to achieve an official national certification of his coffee quality. The same producer had had good experience in working flexibly with the OCIR-Café laboratory. He had been able to bring in samples from trial crops and have them unofficially evaluated for their taste.

7.75 ***The regional context should be taken into consideration in developing Rwanda's standards infrastructure.*** Rwanda should carefully assess which conformity assessment services can best be imported, especially from neighboring countries. The communication process in testing and calibration work is much simpler than in the case of systems certification. With certification services, assessment involves in-depth communication and interaction, whereas this is much less the case for testing. An exception might be organic samples, particularly microbiological testing, where transportation and deterioration of samples make it less feasible to rely on tests undertaken in

[81] For the purpose of clarity, systems certification should be distinguished from product certification and conformity assessment activities.

neighbors. Where regional facilities are to be relied on, it will be important to ensure that Rwandan clients receive equal (national) treatment in terms of pricing and lead times compared with local firms.

7.76 ***Consumer oriented certifications that document management systems for organic products, social accountability, fair trade or eco-certification are relevant to Rwanda.*** Some exporters have already benefited from the advantages that such consumer oriented certifications may yield (such as the case of specialty coffees). Complications arise from the absence of international organizations with an official mandate in these fields. With the exception of organic certification, nongovernmental organizations and self certification by supermarket chains take the lead of these kinds of certificates, and the reputation of the organization is therefore important for the value of the certified product. Organic is a different case, as organic trademarks are regulated in major developed countries (EU, Japan and US). The costs for exporters and producers for eco-certification in Rwanda are very high, and have in some cases prevented new export activity. However, whilst important these niche markets should not dominate policy efforts. They remain small in volume, can quickly become saturated and they favor producers with a developed organizational structure.

7.77 ***Rwanda should not at this time pursue the creation of a national accreditation body but seek to enter into regional partnerships***. There are unlikely to be enough certification bodies, inspection bodies and laboratories to justify building such a complex and knowledge intensive organization. The quality of the accreditation would be low or the institution would charge high prices or have to be highly subsidized to provide its services. There are very few developing countries that have been successful in gaining international recognition for their accreditation bodies. Rwanda could establish a lean anchor point and appoint one officer to occasionally represent Rwanda at the international accreditation fora. This would ensure a formally independent status. Rwanda could otherwise base the operational aspects of the supply of accreditation services on assistance from outside. Other countries have found similar solutions to this problem. New Zealand for instance has teamed up with neighboring Australia to form a joint accreditation body. Kenya or South Africa could be target countries. Recently, Kenya has started building an accreditation service, which should be allowed to offers its services in neighboring countries or to become a regional accreditation body. South Africa has SANAS, an experienced accreditation body that enjoys full international recognition and which has a policy to serve Sub-Saharan Africa. The situation regarding accreditation in most developing countries is one where the only internationally recognized accreditations are those which have been granted by Western European accreditation bodies as a result of donor supported laboratory upgrading or donor supported development of certification bodies. In Rwanda, however, there are no instances yet of this.

7.78 ***Regional cooperation is also important in the field of standards setting.*** In introducing new standards it is important that Rwanda assess the appropriateness of regional standards. It is of great importance that the RBS takes a more active role in the regional standardization work and does not concentrate on developing specific national standards and regulations for the local market.

Box 7.6. Artisan Drums Rejected.
A Rwandan start-up export business in handicrafts was working to establish itself in the United States market. Several designs and types of handicraft were forwarded to the client in the USA. To test the market reaction, artisan drums were included in one shipment. This particular shipment proved a failure, because it was retained at the port by the US authorities. The inspectors found that raw cattle hide had been used as drum skin in the drums. As a consequence of an SPS measure designed to protect against cattle disease, the import was prevented and the drums were destroyed. The exporter was not aware of the relevant SPS measures.

7.79 ***Lack of awareness on food safety and good agricultural practices among the business community can directly cost export orders*** (Box 7.6). Awareness raising and training among the business community is of great importance especially (i) understanding voluntary and mandatory standards of overseas markets, (ii) understanding how regional and international standards are developed and what are the mechanisms to influence the process and to learn about new standards at an early stage, (iii) knowing about the hierarchy of conformity assessment bodies and learning how to make use of internationally available services; (iv) being able to implement quality management systems.

7.80 ***RBS should be supported to create export oriented services and to increase its role as a disseminator of standards-related information.*** The Bureau has a crucial role to play in increasing awareness of standards and quality issues amongst the business community through the provision of information, services and training. A challenge for the information center of RBS should be to tap into the information available through the WTO's publication of TBT and SPS notifications from other members to facilitate exports and allow exporters to adapt in a timely fashion to new requirements in export markets. Such a mechanism could be placed in parallel with the WTO notification and enquiry points that are required by TBT and SPS Agreements and which are not fully in place in the country.

7.81 ***In the higher education institutions expertise in standards and quality should be promoted.*** There could be a role for university laboratories to assist in setting up testing services relevant for exporting businesses. A positive development is an undergraduate course in food safety which has recently been introduced at the Kigali Institute of Technology and Science. The young engineers and scientists leaving this course may prove to be a relevant resource in stimulating awareness building.

7.82 ***Consultancy services for standards and conformity assessment is lacking and should be developed.*** The donor community should take into consideration the opportunity of developing private sector consultancy as a part of any upcoming technical assistance in the conformity assessment field.

CONCLUSIONS AND RECOMMENDATIONS

7.83 ***The expansion and diversification of exports of food products will require efforts to build food safety and SPS management capacities and to raise product quality.*** In doing so, Rwanda should take into careful consideration the requirements of international supply-chains of horticultural products and prioritize among the different standards-related functions. The standards strategy should set medium-term objectives and should motivate a strong role for the private sector in the successful development of a standards and quality infrastructure to support food exports. Foreign buyers' collaboration (in the form of foreign direct investment or some form of partnership with experienced exporters) is of particular relevance.

The main recommendation that we derive from this analysis are:

1. ***Investments in awareness, recognition, and application of basic good practices for hygiene and safety among farmers and entrepreneurs*** must be made to provide the foundation for a strong food standards system***.*** Technical assistance and training on good agricultural practices and Hazard Analysis and Critical Control Points are essential to support an export strategy for processed agricultural products.
2. ***There should be a focus on encouraging quality, systems and consumer-oriented certification*** as this will have a relatively high impact, at least in the medium term. Other related services, such as, testing and calibration, need to be driven by demand, and in many cases the current lack of demand does not justify investment. Use of neighboring countries' facilities it relevant at present and careful cost benefit analysis should be undertaken before engaging in such investments

domestically. There is a need to include higher education institutions in the field of horticulture, standards and quality in particular, and for university laboratories in setting up testing services for exporting business.

3. ***Rwanda should explore regional cooperation in standard-setting, conformity assessment and laboratory services and the accreditation system.***

4. ***The development of the notifications and enquiry points system to comply with WTO obligations under the TBT and SPS agreements should be coupled with the creation of an information service for Rwandan exporters*** on standards issues relevant for Rwandan exports. Coordination among the different administrations involved (especially between Trade, Agriculture and Health administrations) will be essential.

Chapter 8 Diversifying Exports to Support Long-Term Growth

8.1 Whilst coffee, tea and tourism will be the main sources and exports, growth and poverty reduction in the immediate future, the development of new sectors will be crucial to reduce vulnerability to external shocks from changing commodity prices, to sustain growth in the longer-term and to provide the jobs that will be required for rural development with a growing population. The report therefore concludes in this chapter by looking in detail at sectors that are expected to be the drivers of diversification of the Rwandan economy. The key sector, for which a careful and detailed strategy has been outlined, is that of ICT (Information and Communications Technologies). The development of the ICT sector is crucial for supporting diversification and augmenting productivity across all sectors in the economy, including the government and educational services. The ICT strategy also envisages increasing exports of ICT products and services in their own right, although there is much more uncertainty about such prospects. Whilst a clear strategy for ICT has been derived there are a number of barriers to effective implementation both in terms of the legal and institutional structure and the extent of human capacity. The chapter then looks at the horticulture and handicrafts sectors, both which of which, together with ICT, have the potential for strong poverty reduction. Again, there are both physical infrastructure and human capacity constraints which must be addressed if these sectors are to flourish. A more effective organization of the rural sector and the reinforcement of cooperatives will be required for the effective transfer of knowledge and techniques that are necessary to support quality and the satisfaction of regulations and buyers standards in overseas markets that is crucial for export growth in these sectors.

DEVELOPING ICT SERVICES TO ENHANCE PRODUCTIVITY AND EXPORTS

Introduction

8.2 ***ICT can play a crucial role in development and poverty reduction, increasing opportunities for marginalized groups especially women.*** It is now broadly recognized that investment in ICT can play a critical role in stimulating and sustaining development and in poverty reduction. ICT affects the poor by stimulating growth both in ICT related sectors but also more broadly across the economy by reducing transaction costs and allowing for increased productivity across a wide range of sectors. In other words ICT can make factors of production more productive and markets more efficient. In addition, ICT can bring markets and information to those previously excluded. In this way ICT offers the opportunity for linking rural areas, where the majority of the poor reside, to domestic and international markets, and to sources of information and education allowing for more effective choices and for better provision of services by government and technical assistance projects. Thus, ICT can be a particularly effective way of increasing opportunities to those with limited resources, who face high transaction costs and have limited access to markets. ICT has been shown to be an important mechanism to facilitate the increasing participation of women in economic life.[82]

8.3 ***ICT has been identified as a key element of the development plan for Rwanda*** and the Government has announced an ambitious strategy to transform the country from a primarily agrarian economy to a knowledge-based economy by 2020. The vision for ICT is based on the perception that the high population density of Rwanda, which in traditional approaches to development is seen as a serious handicap, could provide for an even greater impact of new technologies and improve the cost effectiveness of investment in human resources development.

[82] ICT and MDGs A World Bank Group Perspective, Global ICT Department, World Bank Group, December 2000. http://info.worldbank.org/ict/assets/docs/mdg_Complete.pdf

8.4 ***While significant progress has been made, and a clear ICT strategy has been defined, there are still substantial constraints that must be addressed for the strategy to be effectively implemented*** and for a substantial impact on exports and poverty to be assured. The aggressive ICT reform measures that have been taken thus far are a substantial first step, but must be accompanied by additional legislative measures, institutional strengthening, and human development. Only after further progress in providing an appropriate legislative framework and ICT liberalization is made can the private sector play a full role in the development of the industry. Additionally, as new technologies are developed and implemented, human resources will be required to ensure they are widely and effectively utilized. As discussed in chapter 7, there is much that Rwanda can do so that trade policy and access to overseas markets are supportive of the development of the ICT sector.

8.5 ***Lack of infrastructure and capacity is the biggest impediment to ICT development in Rwanda.*** Key indicators suggest that the availability of basic telecoms and ICT services in Rwanda still lags behind neighboring countries and is significantly below the average for Africa. The gap to more advanced countries, such as Mauritius, is particularly illuminating (see Table 8.1). For example, even though the teledensity (the number of main lines per 100 people) has been increasing, Rwanda has the sixth lowest effective teledensity on the African continent. The number of mobile telephone subscribers has increased dramatically but mobile density remains very low relative to the average for Africa and compared to regional neighbors. Whilst the number of internet hosts compares favorably with both Uganda and Tanzania, Rwandan is still poorly provided for relative to other African countries and the number of internet users is very low compared to neighbors.[83] Hence, continuing to increase the availability and usage of ICT infrastructure and services will be crucial for the success of the ICT strategy. The effective spread of ICT services into rural areas is inextricably linked with access to electricity. Thus, a strategy for the spread of ICT must be incorporated into the plan for targeted rural electrification that was advocated in Chapter 6. In addition to linking the rural poor to information and markets the spread of ICT infrastructure into rural areas will also be crucial in expanding the market for ICT services to allow exploitation of scale economies and network externalities.

Table 8.1: Indicators of Basic Telecommunications and ICT Infrastructure and Usage in 2003

	Main telephone lines per 100 inhabitants	Mobile phone subscribers per 100 inhabitants	Internet hosts per 10000 inhabitants	Internet users per 10000 inhabitants
Rwanda	0.28 (2002)	1.60	1.78	30.60
Kenya	1.04	5.02	2.63	126.98
Tanzania	0.42	2.52	1.57	70.80
Uganda	0.24	3.03	1.00	48.83
Africa	3.01	6.16	4.22	149.71
Mauritius	28.52	37.87	32.64	1228.50

Source: ITU http://www.itu.int/ITU-D/ict/statistics/

THE ICT STRATEGY

8.6 A renewed Rwandan focus on ICT as an integral part of economic development started in 1998. A National Workshop on "Information and Communication Technology and Strategy" in that year concluded that the lack of any master plan for ICT development in Rwanda posed an impediment to the implementation of specific ICT programs, and to the maintenance of the programs that were implemented.[84] In addition, the lack of qualified human resources for planning and implementing ICT solutions was a significant impediment for ICT development. In particular, top Government officials

[83] With a few exceptions, the telecommunication indicators for Africa are lower than those of other continents.
[84] Such as initiatives associated with the objectives of the African Information Society Initiative (AISI).

and others at the top management level had very little understanding about the possibilities offered by ICT for achieving development goals. Finally there was insufficient or no integration between different Government organizations, which would be necessary for an effective national information system.

8.7 ***The principal recommendation of this workshop was that the Government of Rwanda coordinate all ICT related activities and create momentum for ICT development in all sectors.*** Specifically, recommendations were set in the area of policy that the Government of Rwanda (GOR) should liberalize the ICT sector and set rules for competition in the ICT market. In addition, the GOR should define the regulatory and ethical framework of ICT at the national level, specifically Intranets and Internet regulation, standards for ICT businesses, privacy and transparency on the information highway, and intellectual property and content. The Government of Rwanda should also define and implement a coordinating mechanism for all ICT projects in public institutions and in the private sector. The objective should be to create a more coherent integrated system, at the national level, which could reduce ICT development costs by avoiding duplication. Another key area to address was the lack of human resources. The workshop suggested that urgent steps be taken to include ICT courses at all graduate and post-graduate levels, in all existing and future institutions of higher education.

8.8 ***Subsequent studies were performed which culminated in the Integrated ICT-led Socio-Economic Development Policy and Plan for Rwanda 2001-2005***, which divides the goals and objectives of ICT led development in Rwanda into eight sub-plans:

- Human Resource Development;
- Promoting ICT in Education;
- Facilitating Government Administration and Service Delivery;
- Developing and Facilitating the Private Sector through ICT;
- Deployment and Spread of ICT in the Community;
- ICT Infrastructure Development;
- Legal, Regulatory and Institutional Provisions and Standards;
- Foreign Direct Investment (FDI) in ICT.

Each sub-plan has the directive to implement several programs, and within each program there are several action plans. Each of the action plans has Time Bound Measurable (TBM) targets, which are designated to particular Government Ministries or other organizations. However, there has not been a coordinated attempt to monitor progress in implementing the sub-plans.[85] Here we focus on the key objectives laid out in the plan. We distinguish the public sector and policy goals, which will define the infrastructure and regulatory framework, from initiatives to raise human capacity, which will be crucial for the effective use of ICT services and for raising the market for ICT services as well as determining the pace of development of the software services industry.

KEY PUBLIC-SECTOR AND POLICY GOALS

8.9 ***Provide an appropriate legal and regulatory framework and institutions to promote growth of the ICT sector.*** Specific goals have been set to establish an autonomous regulatory body, establish the National Communication Authority, and to establish a mechanism for coordinated spectrum management and frequency planning. Additionally all Government Ministries and Public Service Organizations (PSOs) are to set aside 5-10% of their annual budget to cover ICT products, services, and training.

[85] The ICT plan has been underway since 2001 and RITA is currently assessing progress made over the 2001 to 2005 period.

8.10 ***Implement specific ICT projects to foster development of traditional sectors in Rwanda.*** There are 3 key elements to this initiative

- Provide Public Information Kiosks (PIKs) that will serve as public access points for information. The information in the PIKs in rural areas is meant to assist rural farmers in obtaining relevant information that is currently not available to them.[86] Ideally they are to be equipped with electronic information access and facilities including TVs and computer touch screens connected to Government electronic information sources, databases and the Internet. The intent is for these kiosks to be highly user friendly with graphical interfaces in French, English, and Kinyaranda. Graphics are to allow those who cannot read or write to avail of the services offered.
- Develop Community Electronic Information Kiosks (CEIKs) which are meant to provide a single point of contact for people for information on government services, to serve as an electronic information center for community announcements, and provide an avenue for local businesses to advertise their services and products, among other things. Specific goals have been set to establish 10 CEIKs in urban prefectures and 5 CEIKs in rural prefectures by 2005. These are currently under review and alternative means of communicating such information are being considered.
- Develop the Land Records Information System (LARIS), which is to be used by departments and Agencies responsible for land administration and allocation and for the registration of Lands and Titled Deeds. LARIS will serve as a computerized database information system and an electronic archive of all details relating to land administration, allocation, registration and utilization in Rwanda. This system was to be implemented in 2004.

8.11 ***Promote involvement of the private sector within ICT***, through instruments such as, special tax and incentive packages to kick-start the ICT production sector and to aid the growth of the ICT service sector; to broaden the ICT industry base and increase its product range as well as similar packages to speed up the growth of the ICT-related service sector and increase its export capability; to facilitate the importation of computer components for local assembly; and to reduce or totally eliminate taxes on locally assembled computers and related equipment.

8.12 ***Become part of the worldwide multi-million dollar off-shore software development industry.*** This would be accomplished by promoting joint ventures between local and foreign software houses to facilitate the rapid growth in the software industry and knowledge transfer. The intention is to set up private and public Software Technology Parks (STPs) and a National Computer Centre. The plan also includes a goal to promote the development of a competitive value-added ICT service sector in Rwanda. This is to be accomplished by formulating guidelines and standards for the provision of quality ICT services by the private sector. There are additional goals to promote the rapid development of business-to-consumer (B2C), business-to-business (B2B), and to business-to-government (B2G) electronic commerce and electronic trade in Rwanda. The plan envisages the development of an export-oriented software services and product development industry.

8.13 Furthermore***, there is a plan to initiate a process for developing a Rwandan Brand for quality software products and services***. The Commercial Banks are to set-up a Special Business Loan

[86] Information available on these kiosks could include: government information and announcements; civic education-related information; educational and training opportunities and vacancies; job opportunities in Government ministries and PSOs; vacancy announcements in the private sector; and information on social services and social welfare benefits and entitlements. Additional information could also be provided at rural based kiosks on: short and medium term weather forecasts; commodity prices in major centers of the country; the supply and shortages of commodities; the availability and costs of seeds, fertilizers, and other agricultural inputs; agricultural subsidies and initiatives targeted at the farming communities; and information on crop and livestock diseases and possible remedies.

Scheme targeted at Software Development companies, STPs, and other top-end computer service providers. Another goal for the sub-plan for Developing and Facilitating the Private Sector through ICT is an initiative to create a Young IT Entrepreneurs (YITE) Business Support Scheme to provide support services and facilities to Young Business Entrepreneurs planning to set-up Information Technology start-up companies and businesses. The goal is for local commercial banks and micro finance institutions to provide qualified you investors with soft-business startup loans that are guaranteed by the Government.

8.14 ***Promote private sector investment to promote ICT infrastructure development.*** Once a private, competitive market has been established, companies will have incentive to develop technologies more quickly and less expensively. In addition to private sector participation, ICT infrastructure development in Rwanda will depend on overall modern physical infrastructure development. The plan to provide urban and rural electrification, targeting at least 75% coverage of electricity in urban areas and 50% coverage in rural areas by 2005, is a very important pre-requisite for ICT infrastructure development.

8.15 Specific goals for ICT infrastructure development include the creation of a comprehensive program to install public telephone access systems and mini-telecenters in rural communities, the development of a telecommunication infrastructure digitization program, and implement a special initiative aimed at spreading Internet access by promoting and facilitating a competitive and vibrant Internet Service Provider (ISP) environment in Rwanda.

PUBLIC-SECTOR AND POLICY PROGRESS

8.16 ***Significant progress has been made in certain areas but a number of key goals have not been met.*** The Government of Rwanda has shown commitment to creating the appropriate legal and regulatory framework and institutions to promote Growth of the ICT sector but the Government has to do more, particularly to liberalize the telecommunications sector. This liberalization should decrease costs and increase efficiency in order to attract the private investment that is needed for further progress. In addition, important initiatives to promote ICT development, such as the PIKs, have not advanced.

8.17 Initial legislative reform started with the 1999 Telecommunication Reform Policy. Also of relevance has been the creation of REIPA, which has responsibility to launch business initiatives and to ensure the participation of the whole spectrum of private sector operators, micro-enterprises as well as larger firms. The Government of Rwanda and dot-GOV[87] have worked together to establish the Rwandan Multi-sector Regulatory Agency (ARM), with jurisdiction over several market sectors including telecommunications and energy. In another attempt to promote activity in the private-sector, the government abolished the state controlled Chamber of Commerce. It was replaced with the Rwandan Private Sector Federation (RPSF).

8.18 Additionally, ***the Rwanda Information Technology Agency (RITA) has been established to coordinate and promote the process of learning and application of information technology in the public and private sectors***. This agency needs greater resources, both financial and staff, to be able to fulfill its mandate. Currently only one person is responsible to promote ICT in the community. There is also a need for assistance in developing capacity in RITA to implement ICT technical standards and guidelines and in conjunction with other relevant bodies, such as RBS, to define standards for certification of ICT professional skills.

[87] dot-GOV is in the final phase of the Telecommunications and Information Technology sector - Legal and Regulatory Reform project, funded by USAID/Rwanda.

8.19 ***A degree of regulatory autonomy was established in 2000. An additional law was created to focus solely on the telecommunications sector.*** In addition to creating relevant institutions, a key factor in telecommunications liberalization is to ensure regulatory autonomy. To accomplish this, the Rwandan Parliament passed the Multi-Sector Regulatory Law, in October 2000. This law, the first step from regulation by the central government to independent regulation of the utilities sector, defines the individual roles of the regulator and of relevant government ministries. One of the prime objectives of the law included the creation of a five-member Regulatory Board. Considerable measures have been taken in the Law to ensure both the integrity and independence of the members of the Board.

8.20 A second objective of this law was the creation of a Rwanda Utilities Regulatory Agency which would provide the Regulatory Board with Administrative and Enforcement support for all aspects of utility regulation. A third objective of this law was the provision of competition into the utilities sector. The Regulatory Agency is to be responsible for law enforcement, granting licenses, dealing with anti-competitive behavior, and establishing technical standards. In addition to the Multi-Sector Regulatory Law, the Government of Rwanda passed a separate Telecommunications Law in November 2001. The motivation behind this law is to have a law focused particularly on the utility it is meant to regulate.

8.21 ***A privatization strategy was adopted in order to promote private sector investment.*** In addition to creating legislation and institutions to enable private sector investment, the Government of Rwanda has also committed to the privatization of several state owned enterprises, including RwandaTel, which was the lone provider of fixed-line telephone services in Rwanda. A privatization strategy for RwandaTel was adopted on June 25, 2003, in which the Government committed to sell all of its shares in RwandaTel and RwandaTel was formally privatized in June 2005.

8.22 The main cellular provider in Rwanda is MTNRwandacell, a privately owned company which currently has coverage in several towns in all of the prefectures. Rwandacell provides coverage to approximately 75% of the country and aims to cover 90% by 2007. In order to promote competition in the telecommunications sector, RwandaTel sold its 28% share in Rwandacell in 2004. A new private-sector player, Artel Communications, is providing fixed telephony over very small aperture terminal (VSAT) satellite, in rural areas of Rwanda (see footnote 3). Artel is not seen as a competitor to Rwandatel but rather as a complement to the incumbent by providing access to remote areas where lack of infrastructure is hindering telecommunications advancements. Rwandatel is the major Internet Service Provider. There are other players, Artel and Terracom, but the recent purchase of Rwandatel by Terracom and the fact that Artel relies in part on the Rwandatel link, entails limited competition in the provision of internet services. There are an estimated 100 cyber cafes in the country, about 75 percent of them in Kigali.

8.23 ***Despite significant progress in sector liberalization, there are many specific ICT sector goals that the Government of Rwanda has not yet been able to achieve.*** Information about the progress made in ICT activities is not readily available and therefore it is difficult to decipher exactly which goals have been accomplished. It appears that most Government Ministries have achieved the goal of establishing ICT divisions, however some of the staffs are smaller than those specified. The Ministries have not been successful with regards to setting aside 5-10% of their annual budgets to cover the purchase of ICT products, services, and training. Installation of the PIKs was to begin in 2004 but has not occurred.[88]

[88] Progress Report on ICT Activities, April-June 2004. Rwanda Information Technology Authority, June 28, 2004.

8.24 ***There is still a tremendous amount of work to be done to ensure the open, transparent, and predictable climate*** that investors look for when choosing locations for future projects. The passage of the Multi-sector Regulatory Law, which created an autonomous regulatory body, and the subsequent passage of the Telecommunications Law are the initial steps necessary to create the right environment for a flourishing ICT sector but further action is required to ensure that this environment continues to exist. Particularly, there needs to be institutional strengthening and the creation of parallel laws:

1. Institutional Strengthening. The creation of a regulatory body is only effective if that body has the capacity to complete the duties that it was established to perform. The telecommunications industry is characterized by rapidly changing technology. As the technology in the field changes, so do the economics of providing the services. For the regulatory body to be able to keep up with the technological advancements, and the changing environment, there needs to be a solid base of well-trained engineers and economists. In addition, there is a need for knowledge and skill building for the regulatory staff in areas such as interconnection and tariff setting. Furthermore there is a need for the development of regulatory and administrative processes and procedures. Finally, the issues of Universal Service and Access should be addressed.

2. Creation of parallel laws. In order for the ICT sector to prosper, there is a need for certain laws to be in place that are not specific to telecommunications, particularly competition law and intellectual property law. These laws are necessary for any economy looking to attract private investment, foreign or otherwise, and currently do not exist in Rwanda.

A. Competition Law. Without good competition law, there is very little chance of establishing a competitive market, which will promote advancement in any sector. In a competitive market, companies will be forced to look for the most cost effective way to provide goods and services that will subsequently streamline processes in that market. The establishment of a competitive ICT market will accelerate the build up of ICT infrastructure, which is a necessity for growth of the sector. The government has made the privatization of Rwandatel a priority, while that is another good first step in promoting ICT sector growth, it is necessary to ensure that the privatization does not simply end with a private monopoly rather than a public one. The creation of a competitive telecommunications market creates necessity for additional laws to regulate private networks. These regulations need to address whether companies can get access to international lines, whether or not they can install satellite technologies and other similar topics.

B. Intellectual Property Law. As the ICT sector begins to grow in Rwanda, the need for good intellectual property law will be significant. If Rwanda intends to transform its economy into a knowledge-based economy, it not only needs to create software and methods of service provision. As Rwandans are able to create these things, there need to be laws in place that protect them so they are not usurped by people in other countries. Furthermore, part of the plan to convert Rwanda into a knowledge-based economy requires offshore investment from foreign investors. These investors will only have incentive to come to Rwanda if they are sure they can protect the creation of products their investments are funding.

HUMAN DEVELOPMENT GOALS

8.25 ***The Government of Rwanda would like to take advantage of its young population and turn it into an asset through various human development programs.*** One training aspect the government would like to pursue is to train people to work in a computer assembly and repair sector. In order to accomplish this, the plan includes a directive to reduce the import duties and VAT on computer products to zero, and provide private sector organizations 100% tax allowance on Human Resource Development (HRD) related expenditure. In addition the plan includes a directive to lower computer equipment prices, to implement special tax provisions to facilitate the importation of computer components for local assembly, and to implement a special tax instrument to reduce or totally eliminate taxes on locally assembled computers. Elsewhere in this report, in the chapter of trade policies, we argue that a more efficient way of achieving this objective would be to reduce tariffs on all imports of ICT equipment to zero by joining the WTO Information Technology Agreement, rather than use administratively complex exemptions and refunds.

8.26 ***Make ICT literacy a basic requirement for future employment and promotions within the Civil and Public Service.*** All Ministers and Secretary Generals, as well as Chief Executives and Senior staff of Public Service Organizations (PSOs) are being trained in the use of computers and the Internet. The rest of the staff of each Ministry and PSO should also receive training in basic computing and Internet. In addition the Universities, Colleges, and the Ministry of Education are to increase the annual enrollment of students taking Business Professional level courses in universities by 30-50%. Additional goals to foster human development in the ICT sector include setting up the Rwandan Workers College (RWC) and the National Vocational Training Commission (NVTC).

8.27 ***Implement guidelines and directives to facilitate the donation of used computers to schools.*** These computers are to come from Government Ministries, Agencies and other PSOs. The Ministry of Education is also responsible to launch the 'Adopt-and-Sponsor a School', which is meant to encourage Businesses within the Private Sector, Civil Society Organizations, and International and Donor Agencies operating in Rwanda to adopt schools and to provide them with new and used computers and other educational facilities and resources on a periodic and sustained basis.

HUMAN DEVELOPMENT PROGRESS

8.28 ***The Government of Rwanda has made significant progress utilizing the institutions that it has at its disposal for ICT education purposes.*** These institutions are the National University of Rwanda (NUR) and the Kigali Institute of Science, Technology and Management (KIST). The student population of KIST grew from 209 in 1998 to 3,304 in 2003. Full-time students constitute 73% of the student population. In addition, Rwanda has become part of the African Virtual University (AVU). Through the AVU, Rwandan students can have access to classes taught in specific international Universities. Furthermore, some progress has been made with respect to the training of employees in Government Ministries and PSOs.

8.29 Despite steps to further the use of computers and other ICT equipment in schools, ***these measures will have little overall impact without a general improvement in the Rwandan education system.*** The GOR is still far from meeting its stated goal of achieving Universal Primary Education by 2005 because the system is short of classrooms, qualified teachers, and materials. As of 2000, the gross primary enrollment rate was 89%, the net rate was 67%, and of these only 20% (only 40% of which were girls) proceed to secondary schools.[89] There is currently little involvement of the private sector in influencing the education strategy with regard to ICT and in defining the quality and type of labor that is in demand.

8.30 Of 4400 primary school teachers to be trained in ICT during 2004 to 2008, 300 have already been trained and it is planned to train a further 3000 by early 2006. In other areas there is little information available on the extent to which measures to meet specific targets have been implemented. A comprehensive action plan is required, which identifies where progress has been made and where it has been unsatisfactory and what resources are required to meet key objectives. The key issues that must be addressed are:

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[89] Education Sector Development Rwanda Construction Management Strategy. Prepared by Paul van Schouk and Eudes Kayumba. March 2000. http://www.mineduc.gov.rw/RwRpt1.pdf

1. Strengthening Public Schools
There has been a great deal of progress in Rwanda to promote ICT education, particularly through the KIST and through the NUR. Furthermore, Rwanda has become involved with the African Virtual University (AVU) program, which allows distance learning from institutions in other parts of the world. Additional initiatives must be taken in order to ensure that these institutions are capable of accommodating more students and providing them with the knowledge they need to be a productive part of the growing ICT sector. There should also be a specific focus to emphasize application development if the goal to achieve Rwandan brand recognition for software development. There has been a focus in Rwanda to **'train trainers'**. This might be better accomplished if the Government was to initiate an ICT training program for professionals already trained in other fields. Because these people are starting from a higher base level of education, the training may be accomplished more quickly and by using fewer resources than training people who have no other professional training. Another specific goal of the Government should be to **attract foreign training institutes**, such as NIIT and Aptech, which have started to have a presence in other African countries. The arrival of this type of foreign training institute accomplishes the goal of increasing ICT literacy not only through the people who complete the programs but also by the knowledge transfer that is achieved.

2. Encouraging ICT Literacy for Public Servants
Part of the plan that the Government has developed to transform the Rwandan economy to a knowledge-based economy includes an assumption that ICT literacy will be a requirement for all future public servants. To give this requirement legitimacy it would be a good idea for the Government to create ICT training programs geared specifically toward ICT in public service. These could include programs for data entry and database management, word processing, and basic e-mail skills, among others.

3. Initiating a Public Education Campaign
The majority of the ICT training initiatives are going to take place in Kigali and other city centers. While these initiatives are important, it is equally important to demonstrate to people in rural areas how ICT can positively impact their lives. The goal of these initiatives is not ICT literacy but more generally, what the ICT sector involves, and how the changes in this sector, headed for a knowledge-based economy will affect the lives of people outside of the cities.

CONCLUSIONS AND RECOMMENDATIONS

8.31 Promoting growth in the ICT sector requires a variety of activities to occur. These activities are generally driven by the public sector. As the public sector accomplishes goals, the benefits achieved necessitate further initiatives and actions to be accomplished by both the public and private sectors. While there has been much success in the initial stages of these tasks in Rwanda there is still much to be done, particularly in the areas of legislative reform and sector liberalization, and promotion of ICT education programs, and in assisting traditional sectors to take advantage of ICT advancements. It is crucial that the strategy of ICT diffusion into rural areas is carefully integrated with a strategy on targeted rural electrification.

The key recommendations are:

1. ***Support RITA in its role of supervising the development of the ICT sector*** and to aggressively pursue the legislative and regulatory changes that are necessary to stimulate a modern and competitive sector, especially with regard to competition law and intellectual property rights. There is a need for a comprehensive audit and needs assessment relative to the objectives and goals of the ICT strategy.
2. ***Ensure increasing access to low cost communications*** and link carefully to a strategy for targeted rural electrification. This should involve effective implementation of the strategy to provide Pubic Information Kiosks and Community Electronic Information Kiosks and to push ahead with the Land Records Information System. There is also a need to consider participation in regional initiatives, such

as the Regional Communications Infrastructure Program, and link into the East African Submarine Cable Project to provide low-cost high-bandwidth connectivity for Rwanda.

3. ***Support the ICT strategy to raise human capacity*** in schools and government so as to provide a skill base consistent with the needs of a growing ICT sector and to stimulate the long-term development of a software services industry.

HORTICULTURE, EXPORT GROWTH AND POVERTY REDUCTION IN RWANDA

Introduction

8.32 ***Horticulture can be an important source of more diversified and higher value exports but significant investments will be required to realize this potential.*** Horticulture[90] offers opportunities to farmers of higher returns relative to traditional agricultural products, has proven to be an important sector for export diversification and has contributed to poverty alleviation in countries that have been able to successfully develop an export capacity. Whilst Rwanda may have certain comparative advantages in producing horticultural products, such as, a favorable climate, a large and relatively cheap labor force, and proximity to European markets, it faces key challenges in developing the sector. Development of the sector will depend to a large extent on the alleviation of the key constraints to trade identified elsewhere in this report, notably, better access to transport, finance and to energy and a more effective organization of the rural sector. Nevertheless, the sector will require specific attention from policy makers since significant investments are required in training and sector-specific infrastructure, such as cold storage facilities, to provide for the consistent quality that is demanded by both consumers and regulators in international markets. Currently the sector is characterized by low productivity and poor quality. This section identifies and analyzes the nature of the constraints and opportunities that Rwanda faces in developing an export oriented horticulture sector and should be read in conjunction with the discussion of standards and quality in Chapter 7.

8.33 Given the infant stage of horticultural development in Rwanda, the unreliability of relevant data and the significant investments needed, a first priority should be a coordinated series of market and feasibility studies on selected horticulture produce to supplement existing preliminary studies. In terms of poverty reduction, the horticulture sector is only likely to play a significant role in the medium to long-term.

Current Situation

8.34 ***There is no strategy for development of the horticulture sector*** Several government strategies identify, or at least refer to, horticulture as a potential for engendering economic growth and diversification. The government's Export Promotion Strategy has identified passion fruit, apple banana, cut flowers and houseplants, and cape gooseberry (Physalis) as four product categories with strong potential for improving Rwanda's exports. However, the reason for the choice of these four product categories is not apparent and a strategy addressing the specific needs of the sector has not been elaborated. There is no discussion of the horticulture sector in the "Strategic plan for Agricultural Transformation in Rwanda" recently prepared by MINAGRI.

8.35 The objective of one of the components of the Rural Sector Support Project (RSSP), financed by the World Bank, is to promote commercialization and target horticultural crops that are traded domestically and regionally. However, this project has been experiencing implementation difficulties, key among which are low disbursements and appropriate personnel. As a result, the project will soon be reviewed and restructured.

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[90] For this report, horticulture is broadly defined as the cultivation and production of fruits, vegetables, flowers, ornamental plants, spices and condiments

8.36 ADAR has produced technical papers on passion fruit, apple bananas, physalis, and bird's eye chili. These papers outline technical know-how for improved cultivation of the produce. The project has also conducted market studies on French beans, physalis, and passion fruit. While these studies are not comprehensive, they do provide for an understanding of the market opportunities for Rwandan producers and potential trading partners.

8.37 ***Lack of institutional capacity is a constraint on the development of the sector.*** On the one hand, the importance attached to the sector is reflected in the fact that MINAGRI has a Division of Horticulture Crops and plans to set up a Horticultural Board to oversee the constraints and challenges of the sector. On the other hand, the primary research institute, ISAR, does not have any horticulture specialists and the other two institutions responsible for research on agricultural production- the Institute of Research Science and Technology (IRST) and Rwanda National University (UNR) - devote little attention to the sector. The Rwandan Bureau of Standards has little capacity for assisting producers in meeting international standards. Unlike the coffee and tea sectors, there are no developed horticultural exporter associations and producer cooperatives or associations are limited. Thus, overall, the institutions that serve the horticulture sector suffer from a lack of human, material and financial resources, technical know-how, and weak management capacity.

Table 8.2: Production Potential of Rwanda's Fruits and Vegetables 2003-2004

Fruits	***Total Surface Area (Ha)***	***Actual Yield (Tons/Ha)***	***Potential Yield (Tons/Ha)***
Passion Fruit	1,168	10-15*	25-40
Pineapple	1,432	20	40-85
Citrus	2,000	15	20-60
Avocado	4,000	6-12	20
Mangoes	1,300	6-12	20
Dessert Banana	9,040	10	35
Other Fruits	2,600	8	…
Vegetables	***Total Surface Area (Ha)***	***Actual Yield (Tons/Ha)***	***Potential Yield Under Intensive Farming(Tons/Ha)***
Tomatoes	4,000	20	30-180
Cabbages	2,000	20	50-80
Carrot	2,000	12	20-40
Onions	2,000	12	30-70
French Beans	1,000	15	10-15
Amaranthus	1,000	20	20
Other vegetables	1,543	12	15-25

Source: MINAGRI

*This figure has been questioned by international specialists who argue that the true number is much lower.

8.38 ***The sector is currently characterized by poor productivity, lack of appropriate skills and techniques and lack of organization.*** The available data[91] suggest that production of fruits and vegetables have increased over the past six years, with total production almost doubling. However, this is from a low base and yields are extremely modest compared to Rwanda's key competitors, in particular those in Sub-Saharan Africa, namely South Africa, Kenya, Côte d'Ivoire, and Zimbabwe. Table 8.21 shows the gross underperformance of Rwanda's horticultural sector**.**

[91] Unfortunately, data for Rwandan fresh produce appears both unreliable and not very detailed.

8.39 Fresh fruits and vegetables require more attention, technical know-how, and quality control than traditional crops, especially since these crops are prone to a wide range of diseases and generally are more delicate in nature. Access to seed varieties and use of fertilizers are also important as well as awareness of safe pesticide use. It is worth noting, however that Rwandan farmers do not typically use pesticides, therefore there is potential for developing organic fresh produce if profitable markets exit**.**

8.40 ***An important issue facing the development of the sector is the small scale at which most farmers are operating*** which constrains the dissemination and adoption of appropriate cultivation techniques, quality awareness and control. The national average size of agricultural farms was 0.76Ha in 2002. Most farmers also practice multi-cropping and the area of farmland allocated to horticulture cultivation is perhaps less than one percent.[92] Such an environment enhances the challenge of disseminating information and techniques and introducing effective marketing channels. There are about four fruit processing units of significant size but, except for a pilot export of passion fruit pulps to Belgium undertaken with the assistance of ADAR, none of these units are currently involved in exporting, and are actually operating below capacity because of insufficient supply.

PROSPECTS FOR DEVELOPING HORTICULTURE IN RWANDA

8.41 ***There is a potential for a substantial impact on poverty.*** Returns from horticultural production can be significantly higher than those from staple food crops. With the prevalence of small-scale farmers there is strong potential that these returns will directly benefit the rural poor. McCulloch and Ota (2002) suggest that households who participate in horticultural production earn, in general, higher incomes than households who do not, in both urban and rural areas. Employment effects extend beyond horticulture producers to include semi and/or unskilled urban workers, particularly women, in pack-houses, who might otherwise have few other job opportunities. These considerations highlight the importance of stimulating horticultural growth that generates new income opportunities. Box 1 provides an example of the successful development of an export oriented horticulture sector in Peru.

8.42 More broadly, research shows a correlation between agricultural productivity and poverty reduction efforts. For Africa, a 10 percent increase in yields can lead to a 9 percent decrease of those living on less that a dollar a day (Thirtle et al, 2001). A further important effect of agricultural growth on poverty is through its impact on food prices and food security. Currently, Rwandans do not eat a significant amount of fresh fruits and vegetables, which are known for their vitamin and other important nutrient contents. Local horticultural production in areas that are otherwise difficult to reach through markets can have a marked impact on food consumption. Elsewhere market mechanisms that foster delivery of regular food supplies at lower and more stable prices help create food security and reduce hunger. Therefore, technological improvements in the sector that simultaneously raise productivity and incomes in rural areas and lower food prices would offer great scope for reducing the incidence of poverty in the Rwanda.

8.43 ***Expansion of tourism offers new opportunities for horticultural producers***. Horticultural produce is considered a luxury by many Rwandans and low incomes constrain demand. Local restaurants and stores purchase a modest share of local produce. However, if the tourist sector expands as projected, new opportunities for domestic growers will arise. Kenya provides an example of where a growing tourist sector boosted the demand for high-quality fruits and vegetables by hotels and restaurants, allowing Kenyans to increase their skills in horticultural production while providing a local outlet for produce. While the 70,000 increase in tourists projected by the Rwanda Tourist

[92] An exception is a local rose company, which operates a farm of 4.2 Ha with plans to extend to 8Ha in 2005.

Strategy is modest compared to the hundreds of thousand tourists that visit Kenya, the impact on Rwanda's horticulture sector could still be very favorable. At the same time, the cargo space of increased passenger planes provides a mean of transport to key external markets for horticulture exports. However, the tourist industry cannot be the sole means of generating growth in the sector, exploiting overseas market opportunities will be crucial for broad based growth in the sector and avoiding over-reliance on tourism is important given the sensitive nature of the industry, reflecting the fickle nature of tourists, and uncertainty arising from the impact of political, social, and natural events.

8.44 ***Trends in the world market offer opportunities for increased exports***. Dietary changes, increases in income, changing demographic structures, trade reform, year-round availability, and technical changes in the food industry have contributed to the growth of high-value agriculture and trade. Horticultural products, primarily fruits and vegetables, account for the largest share of high-value exports, with global exports of US$ 21 billion in 2001. Fruit and vegetable exports have grown 4.4 percent annually during the 1990s and developing countries accounted for almost two-thirds of this growth (FAO, 2003). High-value exports are playing an increasingly important role in Africa. In the second half of the 1990s, the value of exports of fruits, vegetables, flowers, together with meat and fish, was about two-thirds of the combined value of African exports of cocoa, coffee, tea, cotton, sugar, tobacco, and cashew nuts. The European Union is SSA's largest market for fruit and vegetables whilst intra-regional trade accounts for only 5.5 percent of exports of these products.

8.45 ***But competition is strong and standards are demanding.*** Despite the attraction of size and diversity, the EU market is becoming more competitive, as new suppliers enter the market, and increasingly influenced by regulatory issues of quality and standards. Concerns about food safety and the ethical and environmental conditions under which food is produced and distributed has become an important issue for European consumers. The EU Commission, Member State Governments, and leading businesses have responded to these concerns by strengthening and expanding an array of product and process standards, including technical regulations, enhanced regulatory enforcement measures and private codes of practice (Jaffee & Masakure). For countries seeking to develop an export oriented horticulture sector there is a daunting list of measures that have to be satisfied to gain access to EU consumers (Table 8.3).

Table 8.3: Illustrative Regulatory and Private Governance Initiatives Affecting the EU or Member State Fresh Produce Markets

	1990-1995	*1996-1999*	*2000-2003*
Public	- Food Safety Act (UK, 1990) - EU Directive on Pesticide Residues(1990) - EU Directive on Food Hygiene (1990) - EU Harmonized Framework on Pesticides (1991, 1993)	- Community-wide MRL Monitoring Program launched (1996) - Council Regulations promoting (yet not requiring) applications of GAP (1996, 1999)	- EU Harmonized Phytosanitary Regulation (2000, 2002) - EU Harmonized Quality Inspection Regulation (2002) - European Food Safety Authority created (2002) - Many agro-chemical active substances removed from approved list (2003)
Private	- Individual Supermarket Codes of Practice & Audits - ICM Partnership & Assured Produce Scheme (UK and others on the continent) - Safe Quality Food Standard created	- Formation of EUREP (1997) and launch of EUREPGAP fresh produce standard (1999) - BRC Food Technical Standard (1998)	- EUREPGAP fresh produce standard revised (2003) - Ethical Trading Initiative launched plus other requirements for "ethical" audits - International Food Standard launched in France and Germany (2003) - Global Food Safety Initiative launched.

Source: Jaffee & Masakure

8.46 ***Market prospects for Rwandan fresh produce exports are generally good.*** Competitive international prices can be received provided that Rwandan markets can respond to the issues of quality, variety, value-addition, and regular and consistent supply. Meeting these conditions will be a major challenge in Rwanda, where the industry is barely developed, there is no culture of quality control, and supporting infrastructure is absent. Whilst current productivity levels are low there are significant prospects for exports in a number of key products, such as passion fruits, dessert bananas, avocado, pineapple and roses, where global market trends are positive, if yields and quality can be increased. Rwanda has the opportunity to benefit from preferential access to the EU market under the EBA and the US market under AGOA. Utilization of these preferences could assist Rwanda producers in entering into these markets and in establishing a market presence. However, experience suggests that preferences alone a not a recipe for long-term export success.

There are significant constraints on the development of the sector

8.47 ***Whilst market opportunities exist for Rwandan producers to exploit severe production, logistical, and marketing constraints undermines the country's competitiveness.*** Key among these constraints are:

1. Lack of technical know-how: Farmers lack the necessary technical skills required for quantity and quality production. This is reflected in inappropriate practices in monitoring plants, poor hygiene practices in the field, weak management systems, and inappropriate harvesting, packing, and storage practices. The level of research and extension services provided is limited and there is little assistance producers in complying with phytosanitary and pesticide regulations.

2. Poor quality: There are no official EU quality standards for many fresh fruits and vegetables, just a minimum requirement that they be intact, fresh, clean, sound, and free from injury, disease, or pests. However, there are market standards regarding variety, appearance, size, shape, taste, and texture. Most producers are unaware of these requirements.

3. High transport costs: The country's landlocked status and the perishable nature of the produce entail that air transport is the only logical means of shipping to export markets such as the EU. However, airfreight rates are high compared to those paid by Rwanda's competitors.

4. Weak marketing channels: The interface between poor marketing channels and high perishability leads to low returns to farmers. The little produce that is exported is normally channeled through private middlemen both in Rwanda and then in Belgium to European spot markets. The combination of middlemen and spot markets engenders an insecure foundation for market penetration in the long-term.[93] Further, a lack of contract arrangements between processors and farmers means that farmers have to deal with highly fluctuating prices which are often way below world market prices.

5. Lack of basic infrastructure: There is a need to develop basic infrastructure, basic cold storage infrastructure is a priority (see Box 8.1) but there is also a need to develop pack-house facilities including processing units; irrigation schemes; energy; and water. Lack of irrigation schemes, for example, results in farmers achieving only one major harvest per year whilst competitors in countries with irrigation can reap up to three significant harvests per year. Unreliable sources of energy and water inhibits the efficient functioning of industries that support the sector, in particular industries that might aim to develop higher-end products**.**

[93] "Study of the Horticultural Subsector in Rwanda," as part of the Rural Sector Support Program, conducted by V.E.K. Adviesgroep B.V., 2002

Box 8.1 Lack of Cold Storage Infrastructure Constrains Development of the Horticulture Sector
Due to the high perishability of fruits and vegetables, cold storage systems are required to protect against post-harvest losses and maintain quality. Cooling fruits and vegetables immediately after harvesting assist in prolonging their shelf-life. Removing field heat reduces respiration activity, the growth of micro-organisms, moisture loss, and helps maintain produce firm during handling. Cold storage systems are an important part of the post-harvest process and are used also to ride out highs and lows of markets and allow a more continuous and even supply of produce to markets. In the absence of a cold storage system and related cold chain facilities, farmers are forced to sell their produce immediately after harvest, which results in an oversupply in the markets and therefore low price returns and most likely little or no profits to farmers. In India, for example, lack of cold storage systems is cited as the major bottleneck in tapping into this country's potential in horticulture production.[94]

The challenges in building cold storage facilities are the high capital and operating costs and management requirements. The need for rigorous planning and assessment before building is therefore crucial. Economic viability of a cold storage system depends on the intended patterns of use and the rental rates charged. A system that does not cool effectively or uses space inefficiently will reduce profits. Every square inch of the facility should have an assigned use to ensure that it is economically justified. But well managed systems can generate high rates of return.[95]

Currently, the cold storage facilities of MaGerWa at Kigali airport are insufficient and in bad condition. An increase in exports of horticultural products from Rwanda will require the improvement and expansion of cold storage facilities. The refrigerated storage system needs to be able to accommodate different types of products with different temperature requirements. Where some products require near-freezing temperatures others can be damaged by too low temperatures. Facilities should consist of a cooler with a temperature of 8-15°C (46-59°F), a chiller 2-8°C (37-46°F) and a freezer below -18°C (0°F). In addition it has to be taken into consideration that some fruits and vegetables produce ethylene gas as a natural product of ripening. These gases may be harmful to other products and must not be stored in the same storage. With limited flights and lack of cold storage perishables have to be harvested the same day as the aircraft is scheduled to depart. Lack of handling facilities and training lead to a high risk of damage and spoilage to such cargoes at the Kigali airport as well as at connecting regional airports.

A project will shortly seek to upgrade the cold storage facilities at the airport. However, it is important to give attention to cold storage requirement along all elements of the production chain and to provide appropriate training to ensure that the available facilities re used and exploited in the optimum way.

6. Lack of access to finance and credit limits purchases of necessary agricultural inputs. For example, farmers typically cite lack of finance as an important reason why they do not make use of fertilizers. Weak agricultural lending, due in large part to insufficient equity and collateral of borrowers, constrains the development of agribusinesses that can support the development of the horticultural sector. Whilst several development banks provide financial resources for agricultural development, lack of awareness of these opportunities further constrains potential horticultural producers and entrepreneurs.

7. It is a high risk industry: For the most part, horticultural production is more vulnerable than staple crops to production risks- due to increased susceptibility to pest and diseases, and marketing risk- due to its high perishability, and this heightened vulnerability increases the difficulty of farmers' access to agricultural credit. These threats create the need for stronger feasibility studies, and development of risk assessment and risk mitigation tools, including commodity insurance.

[94] Taken from a report on a pilot project on cold storage infrastructure in India, funded by the National Bank for Agricultural Development (NABARD), 1999-2000.
[95] A financial viability assessment for a 5000 tons capacity pilot cold storage system in India showed an internal rate of return of 25.75 percent (Ibid)

CONCLUSIONS AND RECOMMENDATIONS

8.48 ***For the potential of horticulture to be realized in Rwanda, there is a need for significant investments from both the public and private sectors at all levels of the sector.*** Rwanda's horticulture sector is in its infant stage, consisting of rudimentary supply chains, relatively little investment in infrastructure, product development, food safety and other agricultural management systems, and little to no connection to regional and international markets. This problem is compounded by a lack of in-depth and reliable data on important elements within the sector. The country's competitive edge within this sector results from a combination of agro-climatic, locational, and labor costs advantages. Given the infant stage of development of the sector it is important to continue to build the knowledge base relating to the sector and to seek improvements in the availability and quality of data to bolster understanding of the key features and developments in the sector. This leads to the following recommendations:

A. Cold storage facilities along the production chain need to be upgraded and appropriate training provided to facilitate bigger volumes of perishable goods such as flowers, fruits, vegetables and pharmaceutical products. The limited frequency of available flights to international markets require cold room facilities if efforts are being made to increase exports of horticultural products.

B. Continue with analysis of the sector to guide its future development, especially feasibility and market studies of individual horticultural products These are crucial given the huge investments that are required for a successful horticultural sector

At the same time it is possible, from the conclusions of existing work and knowledge, to identify a range of priorities for action that are necessary to provide a basis for the growth and development of the sector, where more immediate interventions can be designed. In particular, it is necessary to

C. Build capacity and train technicians and growers. Emphasis should be on training and sensitization at the pre-production, production, harvesting, and handling levels through the use of field demonstrations and/or farmer school systems. Capacity building and training are also needed in upgrading or value-adding skills and at institutional levels such as ISAR, the Horticultural Division at MINAGRI, and RBS. The key elements of this strategy should be

Strengthen extension capacity. There is a need for increased adaptive research and trial production of seed varieties, seed multiplication and dissemination programs, and research and application of new technologies

Increase physical capacity. Priority attention needs to be given to simple irrigation schemes, post harvest facilities, energy, and transport- particularly airport infrastructure. The level of investments in these various physical infrastructures should be guided by the result of the feasibility and market studies.

Raise quality. The current number of staff at RBS and MINAGRI, for example, is insufficient to effectively monitor and assist with compliance on the large number of small farms. Building on the land reform law incentives should be developed and implemented to merge small plots of land and the development of effective cooperatives as soon as possible. Support should be given for developing a national standard or code of practice for the horticulture sectors.

Assist the development of effective marketing strategies and strengthen supply chains. In the short- to medium-term domestic and regional markets, where market regulations are less complex, are likely to offer greater opportunities whilst capacities to meet more demanding EU standards are raised. Advantage should also be taken of the increase in large supermarkets across eastern and southern Africa. Producers, processors, and exporters need to be more effectively linked, and on terms that are as beneficial to producers. Market information systems must be developed as well as greater market transparency, particularly with regards to grading and standards.

8.49 These objectives should be defined and pursued through a detailed action plan[96] developed as part of the Export Diversification Program based on consultations with all stakeholders. Advantage should also be taken of (i) the remaining time of ADAR, which has an experienced horticultural specialist on board, (ii) the upcoming review and restructuring of the Bank-financed RSSP to discuss how the financial and technical resources from the project can best achieve these objectives.

THE HANDICRAFTS SECTOR

Introduction

8.50 ***The handicrafts sector can contribute to national development and poverty alleviation***, the latter being enhanced by the fact that activity in the sector is dominated by women. Handicrafts can also enhance the tourist experience. In general, workers in the handicrafts sector live in rural areas and use their income from handicrafts to supplement their income from other sources, such as agriculture. A significant amount of the benefits of the Rwanda tourism strategy are projected to go to the handicraft sector, including related tourist souvenirs. However, the handicraft sector is plagued by a low level of capacity and weak organization which leads to problems of consistency of supply in terms of quality, quantity and timeliness. Until these issues are addressed the contribution of the handicraft sector to exports and to poverty alleviation is likely to remain minor.

8.51 ***The handicraft sector is small, with a limited domestic market and relatively high labor costs.*** Successful exporters of handicrafts, such as Thailand, Indonesia, India, Vietnam, and China, expanded from a well-developed domestic handicrafts sector whose output went to the domestic market. In these countries exports were based upon existing capabilities in unique design, highly skilled craft techniques and appropriate material inputs. At least initially in countries with successful handicrafts sectors, labor costs are usually low. There is no indigenous handicraft sector in Rwanda, except for basket weaving and labor costs appear to be relatively high. Again with the exception of baskets, Rwanda does not have abundant supplies of inputs, such as tropical hardwoods, cotton, or silk, with which to produce unique handicrafts.

8.52 ***The lack of effective organization of the sector is a major constraint on expansion***. Each handicraft retailer/exporter has several hundred artisans for each of the main product lines: baskets, wood products, drums, and so on. In general, the artisans working for one company are scattered throughout the rural areas of the country. This increases the costs of transportation (of inputs from Kigali to the producers and finished products from the producers back to Kigali) the difficulty and cost of communication between the retailer/exporter and the artisans, the difficulty of quality control, and the difficulties of training.[97] For most of the artisans, handicraft production is a sideline from their agricultural work. When the retailer/export receives an order or stocks of an item run low in the store, the artisans are contacted, usually in person so that design instructions and raw materials can be provided. They in turn hire others to perform their agricultural work. In order to induce the artisans to give up their work in the fields on demand, the retailer/exporters have had to pay them between two and three dollars per day, roughly twice the agricultural wage. These relatively high wages and high transportation costs are reflected in relatively high costs of production.

[96] The "Study of the Horticulture Subsector in Rwanda," outlines several specific actions in line with the broad objectives indicated above and would be a useful guide in implementing the Export Diversification Program

[97] This wide geographic spread is generally not the case in countries that have successfully exported handicrafts: their handicrafts production is usually tightly concentrated by product in distinct handicrafts villages or areas.

8.53 Exports are currently very small, less than one hundred thousand dollars. This low volume gives two difficult problems to the industry. No one order is sufficient to comprise a full container to one destination. Hence most exports are in small batches and must go by air freight, a very expensive means of shipping, particularly given the low value to weight/volume of Rwandan handicrafts. Ironically, the second problem is the opposite of the first one. If a retailer/exporter does receive a large order such that shipping by container is feasible, the supply network for each product is often not capable of producing the item in a time frame that is acceptable to the importer.

8.54 The retailer/exporters in the industry are well aware of these problems. Through various assistance projects and at their own expense they have visited handicraft trade fairs both to promote their own products and to learn about competing ones from other countries. They recognize that their products cannot compete on the basis of quality or price. They believe, however, that they can find some market acceptance based on being new to the market, unique styles and designs, and with products with an interesting history. Despite the many problems facing this sector, as reflected in the trade data, many of the retailer/exporters that were interviewed had received some orders from importers in the United States and Europe. Only a very few, however, had received repeat orders.

CONCLUSIONS AND RECOMMENDATIONS

8.55 ***An increase in handicraft exports will contribute to economic growth in general and poverty alleviation in rural areas in particular***. A thriving handicraft sector will also help to augment the impact of the tourism strategy. There are market opportunities in the EU and the US to exploit. ***However, the lack of effective organization of the sector is a major constraint on expansion.*** Until this issue is addressed the impact of the sector on poverty reduction will remain limited.

8.56 This leads to the recommendation that before specific interventions can be proposed there is a need to ***develop a strategy for the sector by which production can become organized in a way that allows for the more effective marketization of activity.*** Such a strategy must be based upon additional analysis and more in-depth study of the sector The study should also propose initiatives that can be taken to promote consistency of quality and reliability of supply and awareness of, and ability to satisfy, the requirements of export markets in terms of standards, packaging and design (see the section on standards for an example of handicrafts refused admission to the US because of failure to meet required standards).

Chapter 9 Conclusions, Monitoring and Follow-up

Introduction

9.1 Trade can play a major role in driving sustained growth and poverty reduction in Rwanda. The potential for increased exports is substantial. But, Rwanda faces enormous challenges in providing a framework and climate in which trade can flourish. The key constraints to trade arise from supply-side restrictions in Rwanda and the high costs of transit through neighboring countries. The need for reform, technical assistance and financial assistance is considerable. Given limited international support, scarce domestic resources and low domestic absorptive capacity, it is critical to define key priorities. This is undertaken in this study on the basis of poverty reduction impacts and reflects that the majority of the poor are farmers residing in rural areas. These priorities are presented in the Action Matrix and are summarized below. The next task, which is the focus of this short chapter, is implementation and follow-up of the recommendations and the effective mainstreaming of the priorities regarding trade into the Poverty Reduction Strategy. A key issue will be monitoring to ensure that the initiatives that are proposed in this report do actually lead to higher returns to farmers and exporters, to greater exports and to poverty reduction. There is no automatic guarantee that reductions in transport costs, for example, will necessarily be fully, or even partially, passed onto farmers and producers. Hence, it will be important to regularly monitor changes in farm gate prices and ensure that the share of the farmer in the price of the product upon export increases as improvements are made to transport. If it is apparent that this pass-through is limited, then attention will need to focus on issues such as nature of competition in the transport sector.

PRIORITY ACTIONS FOR TRADE TO DRIVE GROWTH AND POVERTY REDUCTION

9.2 This report concludes that the key actions needed to provide for sustained export growth and for trade to be a driver of poverty reduction in Rwanda are:

(1) ***Reduce trade costs and increase the returns to exporting***. Paramount is the reduction of transport costs and improved access to transport services in rural areas. Whilst transport costs remain high and access is limited, returns to farmers from participating in trade will be suppressed. Lower transport costs, *if passed on to farmers in terms of higher farm gate prices*, will lead to higher returns, increased incomes and greater incentives to increase output of commercial crops. Households producing commercial crops are less likely to be poor than those producing primarily for subsistence. Lower transport costs are also critical to export diversification and the production of a broader base of commodities.

(2) ***Remove barriers that prevent producers in Rwanda moving into tradable activities*** that offer higher potential returns and incomes. The key issues that need to be addressed a) access to credit b) more effective organization of the rural sector through a strengthening of cooperatives c) improving access to energy, which is crucial in allowing production of a broader range of products and expansion of the non-farm sector, but also to improve the flow of information through ICT services and d) increasing the capacity to rural producers to provide the type and quality of products demanded on world markets through training.

(3) ***Continue to improve the climate of investment and for private sector development***. Key elements of the costs of doing business remain high relative to neighboring countries, especially with regard to the costs of starting a business, the time and cost of registering property and the ability to effectively enforce contracts. Further progress of legal reform and the business environment is required if a broader base of exports is to be developed and if significantly larger amounts of FDI are to be

attracted. Also crucial to broader based export driven development over the medium term will be increasing access to efficient modern energy supplies.

(4) ***Strengthen the institutions that support trade and investment in Rwanda.*** Capacity building for export and investment promotion, for trade policy making and for the development of an appropriate standards system will be necessary to support exporters and to allow for the effective representation of the interests of Rwandan exporters in regional and multilateral institutions.

Prerequisites for success

9.3 The analysis of this Diagnostic Trade Integration Study draws on and complements on-going work in formulating an effective poverty-reduction and growth strategy. Indeed, many of the recommendations from the DTIS have already been integrated into the Poverty Reduction Strategy Annual Progress Report. This report will be further updated in 2006 with the development of the second full Poverty Reduction Strategy (PRS) and MINICOM will take the lead in ensuring that the recommendations of the DTIS are fully recognized by this report. This demonstrates to all parties concerned that the Government has a strong commitment to trade and that strengthening the capacity for trade is a high national priority. Incorporation into the PRSP also helps to ensure coherence with other national development priorities.

9.4 To achieve this integration, MINICOM will work closely with all stakeholders, including Government institutions, the private sector, civil society and donors. In particular, MINICOM will undertake wide-ranging and sustained consultations and call on senior figures of Government and the Private Sector to negotiate for the acceptance of new policies. A series of trade-specific workshops bringing together all concerned parties to raise trade issues in the context of the PRSP will contribute to this aim.

9.5 Successful implementation can be further ensured through e***nhanced monitoring of reforms***. Given the wide range of reforms envisaged in the proposed action plan, an effective institutional framework needs to be developed to oversee implementation. Quarterly review of ongoing actions will be essential, with priorities re-evaluated and adjusted as needed.

IMPLEMENTATION

9.6 A national validation workshop discussed the findings of the DTIS and agreed, after some amendments to validate the report. This is now the final report, taking into consideration the Workshop's recommendations. The authorities at the level of the National Steering Committee or the Cabinet will formally validate the amended DTIS and Action Matrix. This final validation is intended to elicit broad support for the DTIS recommendations at senior government levels.

9.7 The implementation activities have been summarized in an Aide-Mémoire and will begin after the formal validation by the authorities. The ***implementation plan*** contains the following elements:

- The implementation structure will build on existing structures which have been effective in supporting the development of the DTIS report. The implementation will continue to be led by MINICOM in conjunction with the Integrated Framework National Steering Committee. The Steering Committee includes active members from each of the relevant Government Ministries and Institutions, as well as Private Sector representatives and Academia. Within MINICOM the process will be driven by an enhanced Integrated Framework Secretariat which will report to the Secretary General and Minister on progress. The Secretariat could benefit from Window II funding for a strengthened staff, plus funding for consultants to help "translate" the matrix funding gaps into concrete project proposals.

- The IF Steering Committee and the Secretariat will undertake the following activities relating to implementation:
    - Further refinement of the implementation plan, including the identification of those recommendations already being fulfilled and those where new specific projects or actions are needed
    - Priority setting, sequencing and timing of these priorities, identification of funding gaps
    - "Translation" of these gaps into concrete projects with the assistance of consultancy support and in conjunction with relevant stakeholders
    - Consultations with donors and Government Ministries to identify who would be prepared to support identified activities
    - Decision of which projects should be put forward for Window II funding, working closely with UNDP Country Office to submit these projects
    - Consultation and lobbying of other Government Ministries and Institutions to take forward related policy decisions and actions
    - Selection of execution modality for these activities.

- The donor facilitator (DFID) will host a meeting of donors to consider the funding gaps for the priority areas, and implementation meetings between the government stakeholders and donors will be organized as stocktaking exercises and to identify the next steps in the implementation process. The DTIS funding gaps will also be discussed during the Development Partners' Meeting on December 1 – 2, 2005.

MONITORING

9.8 The impact and effectiveness of the actions funded in the implementation stage of the IF process will depend on the extent of coordination and monitoring arrangements. It is therefore recommended to establish a monitoring and evaluation system. There are two key elements of the monitoring system

(i) monitoring of the implementation process. This is currently undertaken by the WTO monitoring process and examines the extent which actions are actually being implemented in the form of specific projects. Such monitoring will take place nationally by the Integrated Framework Steering Committee and through the Poverty Reduction Strategy monitoring process.

(ii) Monitoring the impact and outcomes. The development of monitoring indicators for the economic impact of the trade strategy is also crucial. On the one hand it is important to assess the outcomes of the specific projects that are implemented; for example, to ensure that projects related to the transport corridors to Mombasa and Dar es Salem actually reduce transit times, that projects related to rural roads actually increase access to transport, that projects regarding rural credit increase the flow of funds into the rural community. The action plan provides action-specific monitoring indicators that will enable stakeholders to monitor progress in fulfilling each of the strategy components. It is also crucial to monitor the extent to which the objectives of the trade strategy are actually being met. Are exports growing in absolute terms and in terms of amounts per capita? Are farm gate prices rising and are improvements in transport costs being translated into higher incomes for farmers and other producers? Are farmers finding it easier to move out of subsistence activities into the production of commercial crops and other non-farm activities? The box below provides a non-exhaustive list of possible indicators.

9.9 These indicators will need to be refined and included into the Poverty Reduction Strategy, such that monitoring of the trade-related components of this document assesses implementation and impact. It may also be beneficial to draw out from the PRSP those trade-related elements identified by the DTIS, as a yearly commercial sector review - to provide a holistic overview of progress. Defining these indicators and ensuring the capacity to gather, process and evaluate appropriate information will be an important part of the IF process. An issue for discussion will be how such activities can be funded, including the opportunity to use Window II funds to establish these crucial mechanisms for monitoring.

Possible Indicators of the Trade and Poverty Impact of the DTIS Actions

- Export growth and growth of exports per head
- Share of farm gate price in total export price for range of agricultural exports by region
- Areas under cultivation for commercial crops/number of farmers increasing production of commercial crops
- Number of new enterprises in traditional and non-traditional sectors
- SME investments (value and number of enterprises) and exports
- Export diversification into non-traditional products
- Employment in non-traditional sectors
- Poverty levels in rural and urban areas