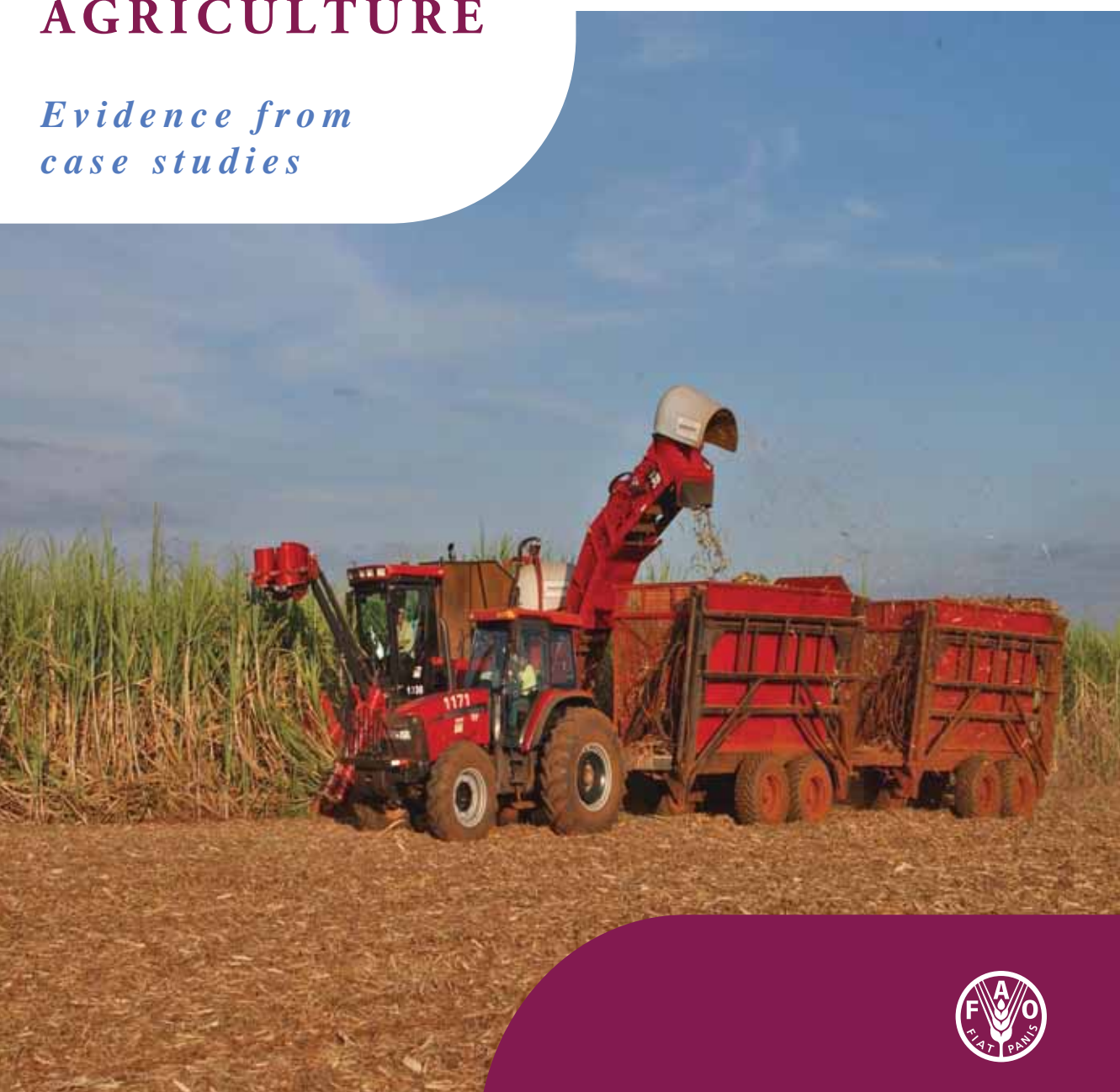


TRENDS AND IMPACTS OF FOREIGN INVESTMENT IN DEVELOPING COUNTRY AGRICULTURE

*Evidence from
case studies*



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Evidence from case studies

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Acronyms

ABRAF	Brazilian Association of Plantation Forest Producers
ADB	African Development Bank
ADB	Asian Development Bank
ADM	Archer Daniels Midland Company
ADRA	Adventist Development and Relief Agency
AGOA	African Growth Opportunity Act
AGRA	Alliance for a Green Revolution in Africa
ANRM	Assemblée Nationale de la République du Mali (Malian National Assembly)
APEC	Asia Pacific Economic Cooperation
APEP	USAID's Agricultural Productivity Enhancement Program
APEX	Brazilian Agency for Export and Investment Promotion
APIX	Agence de Promotion des Investissements du Sénégal
ASDP	Agriculture Sector Development Programme
ASEAN	Association of South East Asian Nations
BCB	Brazilian Central Bank
BDS	Business Development Services
BEST	Business Environment Strengthening for Tanzania
BFS	Brazilian Forest Service
BIT	Bilateral Investment Treaties
BNDES	Brazilian Development Bank
BOI	Board of Investment
BOT	Bank of Thailand
BPF	Business and Property Formalization
CAADP	Comprehensive Africa Agriculture Development Programme
CC	Coordinating Committee to implement the PROMECIF
CCG	Codes of Corporate Governance
CCROs	Customary Certificates of Rights of Occupancy
CCSR	Codes of Corporate Social Responsibility
CDC	Commonwealth Development Corporation
CDC	Council for the Development of Cambodia
CDF	Code Domaniale et Foncier (Mali) (Property and Land Law)
CDRI	Cambodian Development Resource Institute
CDTF	Cotton Development Trust Fund
CEA	Cambodia Economic Association
CEDAC	Centre d'Étude et de Développement Agricole Cambodgien
CERFLOR	Brazilian Forest Certification Scheme

Acronyms

CFA	Communauté Financière Africaine (African Finance Community)
CGI	Global Competitiveness Index
CIB	Cambodia Investment Board
CIBRAZEM	Brazilian Storage Company
CICOL	Civil Society Coalition on Land
CILSS	Comité Inter - Etats de Lutte Contre la Sécheresse dans le Sahel (Permanent InterState Committee for Drought Control in the Sahel)
COMESA	Common Market for Eastern and Southern Africa
CPI	Corruption Perceptions Index
CROs	Certificates of Rights of Occupancy
CSO	Central Statistical Office
CSR	Corporate Social Responsibility
CT	Collectivité Territoriale (Local Authority)
CTSP	Children to School Support Programme
DANIDA	Danish International Development Agency
DEP	Department of Export Promotion
DFI	Development Finance Institution
DFiD	Department for International Development
DGID	Direction Générale des Impôts et des Domaines
DISEZ	Dakar Integrated Special Economic Zone
DN	Domaine National
DNCN	Direction Nationale de la Conservation de la Nature (Malian Nature Conservation Department)
DNEF	Direction Nationale des Eaux et Forêts (Malian Water and Forestry Department)
DNH	Direction National de l'Hydraulique (Malian Hydraulics Department)
DNP	Direction Nationale de la Pêche (Malian Fisheries Department)
DNPIA	Direction Nationale des Productions et des Industries Animales (Malian Livestock Production and Industry Department)
DNSV	Direction Nationale des Services Vétérinaires (Veterinary Services Department)
DRA	Direction Régionale de l'Agriculture (Regional Agriculture Department)
DRC	Democratic Republic of the Congo
DRPIA	Direction Régionale des Productions et des Industries Animales (Regional Livestock Production and Industry Department)
DSIP	Development Strategy and Investment Plan
DTAs	Double Taxation Agreements

EAC	East African Community
EC	Executive Committee
ECOWAP	Economic Community of West Africa States Agricultural Policy
ECOWAS	Economic Community of West Africa States
EFE	Zone Franche d'Exportation
EGF	Etats Généraux du Foncier (Malian Land Tenure Congress)
EIA	Environmental Impact Assessment
ELC	Economic Land Concession
EMBRAPA	Brazilian Agricultural Research Corporation
EMBRATER	Brazilian Enterprise of Technical Assistance and Rural Extension
EPA	Environmental Protection Agency
EPZ	Export Processing Zone
ERR	Expected Rate of Return
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FAQ	Fair Average Quality
FASDEP	Food and Agriculture Sector Development Policy
FBG	Farmer Business Group
FBOs	Farm Base Organizations
FCC	Fair Competition Commission
FDI	Foreign Direct Investment
FFA	Free Fatty Acids
FGD	Focus Group Discussion
FIAS	Foreign Investment Advisory Service
FINAME	Special Agency for Industrial Financing, a branch of BNDES
FIPA	Foreign Investment Protection Agreement
FISP	Farmer Input Support Programme
FSC	Forest Stewardship Council
FSP	Fertilizer Support Programme
FTA	Free Trade Agreement
FVL	Forest Vocation Lands
GCF	Gross Capital Formation
GDP	Gross Domestic Product
GDS	Grands Domaines du Sénégal
GEPC	Ghana Export Promotion Council
GERSDA	Groupe d'Etude et de Recherche en Sociologie et Droit Appliqué (Research and Study Group on Sociology and Applied Law)
GFC	Ghana Forestry Commission

GFZB	Ghana Free Zones Board
GHC	Ghanaian Cedi
GIF	Ghana Investment Fund
GIPC	Ghana Investment Promotion Centre
GLOBALGAP	Global Good Agricultural Practices
GMO	Genetically Modified Organism
GNP	Growth National Product
GOANA	Grande Offensive Agricole pour la Nourriture et l'Abondance
GoB	Government of Brazil
GOPDC	Ghana Oil Palm Development Companies
GPS	Geographical Positioning System
GRZ	Government of the Republic of Zambia
GSE	Ghana Stock Exchange
GTC	Green Trade Company
GTZ	German Technical Cooperation
GVC	Global Value Chains
HACCP	Hazard Analysis Critical Control Point
HDI	Human Development Index
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
HS	Harmonized System
IBRD	International Bank for Reconstruction and Development. Also WB
ICSID	International Centre for the Settlement of Investment Disputes
ICT	Information and Communication Technology
IDB	Inter-American Development Bank
IDEA	USAID's Investment in Developing Export Agriculture
IFAD	International Fund for Agricultural Development
IFC	International Finance Corporation
IFPRI	International Food Policy Research Institute
IICA	Inter-American Institute for Cooperation on Agriculture
IIA	International Investment Agreement
IIED	International Institute for Environment and Development
ILO	International Labour Organization
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commissions
IPCC	Intergovernmental Panel on Climate Change
IPPA	Investment Protection and Protocol Agreement
ISO	International Organization for Standardization
ITFC	Integrated Tamale Fruit Company
IUCN	International Union for the Conservation of Nature

JV	Joint Venture
Kascol	Kaleya Smallholders Company Ltd (Kascol)
KHR	Cambodian riel
LAC	Latin America and the Caribbean
LDC	Least Developed Country
LGA	Local Government Authority
LICUS	Lower Income Country Under Stress
LOA	Loi d’Orientation Agricole (Agricultural Framework Law)
M&A	Merger and Acquisitions
M&E	Monitoring and Evaluation
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
MAFF	Ministry of Agriculture, Forestry and Fisheries
MAFSC	Ministry of Agriculture, Food Security and Cooperatives
MCC	Millennium Challenge Corporation
MDC	Mpongwe Development Company
MDGs	Millennium Development Goals
MDRE	Ministère du Développement Rural et de l’Environnement (Malian Ministry for Rural Development and the Environment)
MEDIZON	Ministère Délégué auprès du Premier Ministre, chargé du Développement Intégré de la Zone de l’Office du Niger (Secretary of State, attached to the Prime Minister’s office, responsible for the Integrated Development of the Office du Niger Area)
MEF	Ministry of Economy and Finance
METASIP	Medium Term Agriculture Sector Investment Plan
MFC	Ministère des Finances et du Commerce (Malian Ministry of Finance and Trade)
MFEZ	Multi-facility Economic Zone
MFPED	Ministry of Finance, Planning and Economic Development
MiDA	Millennium Development Authority
MIGA	Multilateral Investment Guarantee Agency
MLAFU	Ministère du Logement, des Affaires Foncières et de l’Urbanisme (Malian Ministry of Housing, Land and Town Planning)
MLHSD	Ministry of Lands, Housing and Human Settlements Development
MMA	Ministry of Environment of Brazil
MMEE	Ministère des Mines, de l’Énergie et de l’Eau (Ministry of Mines, Energy and Water)
MNEs	Multinational Enterprises
MoE	Ministry of Environment
MoFA	Ministry of Food and Agriculture
MoP	Ministry of Planning
MoU	Memorandum of Understanding
MoWRaM	Ministry of Water Resources and Meteorology
MSME	Micro, Small and Medium Enterprise

Mt	million metric tonnes
NAADS	National Agricultural Advisory Service
NAMBOARD	National Agricultural Marketing Board
NAROS	National Agricultural Research Organization
NEPAD	New Economic Partnership for Africa Development
NESBD	National Economic and Social Development Board
nFVL	Non-forest Vocation Lands
NGFSRP	Northern Ghana Food Security Resilience Project
NGO	Non-Governmental Organization
NIC	Newly Industrialized Countries
NSDP	National Strategic Development Plan
NSTDA	National Science and Technology Development Agency
OAE	Office of Agricultural Economics
OAPI	African Organization for Intellectual Property
ODS	Ozone Depleting Substances
OECD	Organization for Economic Co-operation and Development
OMOA	Organic Mango Outgrowers Association
ON	Office du Niger
ONFH	Observatoire National du Foncier et de l'Habitat (National Land and Housing Observatory)
PAP	Project-affected people
PEAP	Poverty Eradication Action Plan
PICS	Productivity and Investment Climate Surveys
PIV	Périmètres Irrigués Villageois (Village irrigation schemes)
PKC	Palm Kernel Cake
PKO	Palm Kernel Oil
PMA	Plan for the Modernization of Agriculture
PMO-RALG	Prime Minister's Office, Regional Administration and Local Government
PND	National Development Plan
POME	Palm Oil Mill Effluent
PPP	Public Private Partnership Policy
PPRA	Public Procurement Regulatory Authority
PPTA	Project Preparatory Technical Assistance
P-RM	Présidence de la République du Mali (Presidency of the Republic of Mali)
PROMECEF	Forestry Investment Business Climate Improvement Process
PRONAF	National Programme for Family Agriculture Strengthening
PRSC	Parastatal Sector Reform Commission
PRSP	Poverty Reduction Strategy Paper
PSM	Projet Sucrier de Markala (Markala Sugar Project)
PSOM	Dutch Government Programme

PTF	Privatization Trust Fund
PTS	Pesticides and Toxic Substances
R&D	Research and Development
RAI	Responsible Agricultural Investment (Principles)
REDD	Reducing Emissions from Deforestation and Forest Degradation in developing countries
ROI	Return on Investment
RPKO	Refined Palm Kernel Oil
SAGCOT	Southern Agricultural Growth Corridor of Tanzania
SAGF	Rabo Sustainable Agriculture Guarantee Fund
SDC	Swiss Development Cooperation
SDDZON	Schéma Directeur de Développement de la Zone de l'Office du Niger (Development Master Plan for the Office du Niger Area)
SEDIZON	Secrétariat d'Etat auprès du Premier Ministre, chargé du Développement Intégré de la Zone de l'Office du Niger (Secretary of State, attached to the Prime Minister's office, responsible for the Integrated Development of the Office du Niger Area)
SEAFMD	South East Asia Food and Mouth Disease Regional Coordination
SEKAB	Swedish Ethanol Chemistry AB
SEZ	Special Economic Zone
SIDA	Swedish International Development Agency
SIF	Forestry Research Society
SLC	Social Land Concession
SLPIA	Service Local des Productions et des Industries Animales (Local Livestock Production and Industry Service)
SME	Small and Medium Enterprise
SOCAS	Société de Conserves Alimentaires du Sénégal
SOSUMAR	Société Sucrière de Markala (Markala Sugar Company)
SPILL	Strategic Plan for Implementation of Land Laws
SSA	Sub-Saharan Africa
SSNIT	Social Security and National Insurance Trust
TAFTA	Thailand-Australia Free Trade Agreement
TECHNOSERVE	Technology in the Service of Mankind
TIC	Tanzania Investment Centre
TNC	Transnational Corporation
TRIMs	WTO Agreement on Trade-related Investment Measures
UBR	Uganda Business Register
UBS	Uganda Bureau of Statistics
UCDA	Uganda Coffee Development Authority
UEMOA	Union Économique et Monétaire Ouest Africaine
UEPB	Uganda Export Promotion Board
UFEA	Uganda Flower Exporters Association

UFPFA	Uganda Fish Processors Association
UFV	Federal University of Viçosa
UIA	Uganda Investment Authority
UK	United Kingdom
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
URA	Uganda Revenue Authority
USA	United States of America
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
US\$	United States dollar
VAT	Value Added Tax
WARDA	West African Rice Development Association
WB	The World Bank. Also IBRD.
WCGA	Western Cotton Growing Area
WEF	World Economic Forum
WFP	World Food Programme
WFS	World Food Summit
WIPO	World Intellectual Property Organization
WIR	World Investment Report
WTO	World Trade Organization
ZDA	Zambia Development Agency
ZMK	Zambian Kwacha
ZEMA	Zambia Environmental Management Agency
ZSC	Zambia Sugar Company

Foreword

Large-scale international investments in developing country agriculture, especially acquisitions of agricultural land, continue to raise international concern. Certainly, complex and controversial issues – economic, political, institutional, legal and ethical – are raised in relation to food security, poverty reduction, rural development, technology and access to land and water resources. Yet at the same time, some developing countries are making strenuous efforts to attract foreign investment into their agricultural sectors. They see an important role for such investments in filling the gap left by dwindling official development assistance and the limitations of their own domestic budgetary resources, creating employment and incomes and promoting technology transfer. More investment is certainly needed – more than US\$80 billion per year according to FAO analysis. But can foreign direct investment be compatible with the needs of local stakeholders as well as those of the international investor? And can these investments yield more general development benefits?

Analyzing the impacts of foreign direct investment in developing country agriculture and even understanding its extent and nature has been hampered by the weakness of the available information and the lack of comprehensive statistical data. Much discussion of the phenomenon has been based on media stories but these are potentially misleading unless very carefully triangulated. This lack of reliable detailed information means serious analysis has tended to rely on case studies. This book collects together case studies undertaken by FAO in nine different countries. These add to the increasing volume of evidence from similar case studies undertaken by other international organizations.

It is important that any international investment should bring development benefits to the receiving country in terms of technology transfer, employment creation, upstream and downstream linkages and so on if these investments are to be “win-win” rather than “neo-colonialism”. These beneficial flows are not automatic: care must be taken in the formulation of investment contracts and selection of business model. Appropriate legislative and policy frameworks need to be in place. The case studies in this book describe the extent, nature and impacts of international investments and examine the effectiveness of policy and legal frameworks. Obviously, generalizations are difficult both on the impacts of foreign investments and on the best regulatory approaches but the studies provide a wealth of insights which should be valuable to host country governments and investors alike. Their findings shed light on a number of issues including the extent to which forms of investment other than land acquisition – such as contract farming, out-grower schemes and other joint ventures – are more likely to yield development benefits to host countries. They highlight the importance of stronger governance in the host country and provide some indications of the priority areas of focus for international efforts to formulate guiding principles for responsible agricultural investments.



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PART
ONE



INTRODUCTION

1. Global context and issues

After several decades of under-investment in the agricultural sector in developing countries, the late 2000s witnessed a surge in foreign direct investment (FDI) in primary agricultural production. The reasons for this surge are diverse and complex, but the main drivers can be linked to the steep rise in commodity prices in 2007-2008 and the realization that demand for finite natural resources is set to continue increasing significantly in the next four decades. The spike in food prices prompted countries that are heavily dependent on food imports to invest in other countries where land and other natural resources (in particular water) are abundant with a view to securing supply. They view the ownership of production and the possibility to export the harvest back home as a more reliable strategy for food security than depending on international markets. In addition, high energy prices triggered international investment in the production of feedstock crops for biofuels. Beyond causes that are linked to the current situation of markets, other drivers indicate that the trend is likely to continue in the longer term. These drivers include expectations of rising prices, population growth, growing consumption rates and market demand for food, biofuels, raw materials and carbon sequestration.

Expectations of rising prices for land and other natural resources have given rise to financial speculation. In turn, speculation on land and other natural resources has been fuelled by the poor market performance of more traditional asset classes such as equity and bonds in the wake of the financial crisis that started in 2007. According to a survey of 25 large investment firms prepared for the OECD (2010), investment in farmland and agricultural infrastructure offers the following attractions as an emerging asset class: strong long-term macroeconomic fundamentals; attractive historical returns on land investment; a mix of current income and

capital appreciation; uncorrelated returns with the equities market and a strong hedge against inflation.

While foreign investment in agriculture is not a completely new trend, the current situation differs from more traditional forms of international investment in the agro-food sector, which primarily aimed to provide a better access to markets or cheaper labour. Through the new investment forms, investors seek to gain access to natural resources, in particular land and water. Another feature is that the new forms of investment involve acquisition of land and actual production rather than looser forms of association with local producers. The new investors emphasize production of basic foods, including animal feed, for export back to the investing country rather than tropical crops for wider commercial export (Hallam 2011). According to the OECD survey (2010), 83 percent of the farmland acquired or leased on a long-term basis by survey respondents was dedicated to the production of major row crops (soft oilseeds, corn, wheat and feed grains), with 13 percent being invested in livestock production (typically grazing of beef cattle, dairy, sheep and swine) and 4 percent of farmland dedicated to permanent crops such as sugar cane and viticulture, agricultural infrastructure and set-asides.

2. Assessing the extent of foreign investment in agriculture

Although there is ample evidence of increasing investment in developing country agriculture, it is difficult to quantify the current phenomenon due to the lack of reliable data. For 2007 and 2008, comparable data on total FDI to all sectors are only available for 27 countries. For these countries, average annual inward FDI flows in the two years were estimated at US\$922.4 billion (UNCTAD 2011). Of this total, FDI into agriculture (including hunting, forestry and fisheries) represented only 0.4 percent. A larger share, 5.6 percent, went to the food, beverages and tobacco sectors, primarily in high-income countries.

Trends over time in FDI are difficult to monitor because the number of countries for which data are available varies from year to year. Looking at agriculture alone, comparable data are available for 44 countries. FDI to these countries more than doubled between 2005-06 and 2007-08. However, the majority of these flows went to upper-middle and high-income countries (Lowder and Carisma 2011). These figures probably underestimate actual flows of foreign investment in agriculture, because data are missing for many countries. Furthermore, investments made by large private institutional investors, such as mutual funds, banks, pension funds, hedge funds and private equity funds are not included in estimates of FDI. A broad, though not comprehensive, recent survey of agricultural investment funds in several developing regions (excluding East Asia and the Pacific) found that such funds have increased in number and value (Miller et al., 2010). The second section of this report provides more estimates of FDI flows in the agricultural sector of selected developing regions and countries.

While foreign capital is invested in a wide array of agricultural assets, international debates and research have recently focused on foreign investments for the control of agricultural land on a large scale. This focus can be partly explained by the multifunctional characteristic of land. Beyond its economic value, land also has social, cultural and religious values in many countries. Large-scale land acquisition raises complex issues across various dimensions: legal, economic, social, environmental, ethical and cultural. Studies show that foreign investment in land takes place through purchase or long-term leases. Long-term lease of agricultural land is a more frequent arrangement than purchase in the case of foreign investment, partly due to the fact that several countries have regulations prohibiting the sale of land to foreigners. However, the economic and social implications tend to be similar as for outright sale since lease contracts are generally for a long period (typically 50 years and sometimes up to 99 years). In some cases of purchase, a local counterpart to the foreign investor is involved.

Several organizations have tried to estimate the area of land that has been the object of large-scale transactions in recent years using different sources. The non-governmental organization GRAIN has operated an online database of land acquisition mainly based on media reports (www.farmlandgrab.org 2011). Estimates that are solely based on the collection of media reports may be misleading, as a substantial share of the announced projects does not materialize in an actual transaction for various reasons (including decision by the investor not to proceed). Systematic inventories of land deals based on official government records, crosschecked with third-party sources are likely to produce more reliable estimates. The figures gathered through these national inventories are usually lower than those based on media reports. In Mozambique, for example, media sources arrived at more than 10 million hectares acquired between 2008 and 2010, whereas a national inventory for 2004–2009 calculated a figure closer to 2.7 million hectares (Cotula and Polack 2012). The average size of individual transactions is also smaller than that suggested by media reports. The World Bank estimates that an area of 46.6 million hectares was acquired between October 2008 and August 2009 (Deininger and Beyerlee 2011).

The Land Matrix, a partnership between the Centre for Development and Environment (CDE) at the University of Bern, the Centre de coopération Internationale en Recherche Agronomique pour le Développement (CIRAD), the German Institute of Global and Area Studies (GIGA), the German Agency for International Cooperation (GIZ) and the International Land Coalition (ILC), systematically collates and seeks to verify information on large-scale land acquisitions. The data collected by the Partnership originate from media reports, international and non-governmental organizations and academics. The Partnership has collected reports for 1 217 agricultural land deals in developing countries accounting for over 83 million hectares of land over the period 2000-2012 (Anseeuw et al 2012)¹.

¹ The main sections of the database are now publicly available (<http://www.landportal.info/landmatrix>).

However, it estimated that the area concerned by transactions that it judged as “reliable” (i.e. cross-checked with other sources) accounted for only 39.3 percent of this area (32.7 million hectares)².

The difference between estimates primarily derives from differences in the methods used for calculation. There are differences in the considered time periods (some surveys cover a whole decade, others only a couple of recent years), in the type of investments that is included (for example some surveys do not record transactions for establishing a tree plantation), in the status of the project (some databases include projects announced by the media while other only include approved transactions) and in the minimum area for the transaction to be recorded (for example, the Land Matrix only records deals that cover 200 hectares or more).

While it is clear that some figures highlighted by the media are overestimated, there is also evidence that not all land transactions are reported. Investors may have various reasons for not reporting a deal, including commercial confidentiality and fear for their corporate image. Similarly, some governments may be reluctant to publicize a transaction for a variety of reasons. Consequently, the transactions that are not reported may somewhat offset those that are announced but do not materialize. Finally, it should be noted that even when agreements are signed and the transaction takes place, the share of land that is cultivated in reality is often much less than what was announced by the investor.

In terms of destination of FDI, Africa is the most targeted region: the Land Matrix estimates that 754 land deals covering 56.2 million hectares are located in Africa, compared with 17.7 million hectares in Asia, and 7 million hectares in Latin America. Reported land deals in Africa concern an area equivalent to 4.8 percent of Africa’s total agricultural area, or the territory of Zimbabwe (Anseeuw et al 2012). The majority of reported

acquisitions are concentrated in a few countries. A large number of countries (84) are reported to be targeted by foreign investors, but only 11 of them concentrate 70 percent of the reported targeted area. Among those 11 countries, 7 are African, namely Sudan, Ethiopia, Mozambique, United Republic of Tanzania, Madagascar, Zambia and Democratic Republic of the Congo. In South-East Asia, the Philippines, Indonesia and Lao People’s Democratic Republic are particularly affected.

In conclusion, even though the real scale of foreign investment in agricultural land may be smaller than what the media suggest, the available evidence shows that it is important.

The fact that most of the debates on large-scale land acquisitions has focused on foreign investments is easy to understand. Foreign investments raise a number of delicate issues related to national sovereignty and independence which are all the more sensitive in view of the colonial history of many countries. In addition, foreign investments in land can be large-scale with many involving more than 10,000 hectares and some more than 500 000 hectares (Hallam 2011). Investments by foreign firms tend to cover a larger area than those made by domestic companies. For example, in the Office du Niger area in Mali, no foreign investor acquired less than 500 hectares, while local investors acquired much more modest areas.

Nevertheless, the international attention given to foreign investment should not conceal the fact that in most countries domestic investors acquire more agricultural land than foreign ones. The World Bank (2011) estimates that domestic investors were responsible for 80 percent of the land transactions in the surveyed developing countries. Even though the average area covered by the transactions was smaller than that of foreign investments, domestic investors still accounted for 60 percent of the total acquired area. Case studies have shown the critical role of national elites in land acquisition. Nationals accounted for the following percentages of the area acquired in the following countries: 97

² Even the “cross-checked figures” should be treated with caution due to the lack of reliability of alternative sources in some cases.

percent in Nigeria, 70 percent in Cambodia, 53 percent in Mozambique and around 50 percent in Sudan and Ethiopia. In some cases, though, domestic companies act as an entry point for foreign investors, facilitating their access to agricultural assets (Burnod et al. 2011).

3. Origins of agricultural FDI

A variety of actors from both the private and public sectors are involved in this new investment trend. Private sector actors include investment funds, pension funds, hedge funds, agricultural and agro-industrial companies, and in some cases, energy companies. Public sector actors include governments, sovereign wealth funds and other state-owned companies. Increasingly, governments prefer to support investment by their home companies rather than investing directly into agricultural land in developing countries. This results partly from a strategy of risk reduction, including financial risks and risks to their reputation in the wake of negative media coverage. This support can take the form of public private partnerships whereby the government provides or guarantees loans and provides tax rebates, technical assistance or other means of assistance. A recent survey suggests that investments made by public-private partnerships accounted for some 600 000 hectares in 2012 (Anseeuw et al 2012).

In terms of geographical origin, recently-published data from the Land Matrix indicate that investment originates from three groups of countries: emerging economies in East Asia and South America; Gulf countries; and countries from North America and Europe (Anseeuw et al 2012). International media have highlighted the role played by Middle Eastern and East Asian countries, in particular China. However, the World Bank finds that it is only in Sudan that Middle Eastern countries account for a majority of foreign investment in agriculture (Deininger et Byerlee 2011). As for China, Cotula and Polack (2012) suggest that it is a key investor in Southeast Asia but has a less important contribution to investment in agricultural land in Africa. There is evidence that companies from

Southeast Asia have been investing significantly in African agriculture. Southeast Asia has become both a destination for and a source of foreign agricultural investment. South America is in a similar situation. Although North American and European investors have attracted less media attention, there is evidence that they account for a significant share of foreign investment in developing country agriculture. According to a survey done for the OECD (2010), most investment funds investing in farmland across the world are based in Europe and North America. Schoneveld (2011) argues that European firms account for 40 percent of all land acquired in Africa, while North American companies account for 13 percent. In particular, European and North American firms dominate investments for the production of biofuels in Africa.

4. Patterns of FDI flows

There is a strong tendency towards intra-regional investment in Asia and South America, as local firms seek to replicate the success in their home country by investing across the national borders. In Africa, South African companies have been successfully investing in other countries of the continent. In some cases they channel investment from companies based in another continent into other African countries, such as Mozambique, United Republic of Tanzania or Zambia, taking advantage of their expertise in African agriculture (Cotula and Polack 2012). Partnerships are important for investors, as they can contribute to reducing the costs of complex local administration, and for legal reasons in some contexts. For example in 12 percent of the cases collected by the Land Matrix Project, foreign investors had built partnerships with domestic companies. Foreign investors also often act in partnership with each other. Investors from the United States, United Kingdom and South Africa have formed such partnerships in about a third of the deals in which there are involved (Anseeuw et al. 2012).

As for inter-regional investment, a particular pattern of bilateral investment flows has emerged following established cultural, political and

business ties and geographical restrictions on investment funds. Gulf countries have favoured investments in Sudan and other, mainly African, OIC member states, for example. China has favoured Southeast Asia and, in Africa, Zambia, Angola and Mozambique (von Braun and Meinzen-Dick 2009).

5. Implications for food security

Various studies suggest that investors are targeting countries with weak land tenure security, although they seek countries that, at the same time, offer relatively high levels of investor protection (Anseeuw et al. 2011, Deininger and Byerlee 2011). The data from the Land Matrix reveal a tendency for investors to focus on the poorest countries, and those that are also less involved in world food exchanges. Investors are targeting countries that are among the poorest, are poorly integrated into the world economy, have a high incidence of hunger, and weak land institutions. Some 66 percent of the deals reported in the Land Matrix were in countries with high prevalence of hunger.

The implications for food security are even more significant when one considers the type of land that is being acquired. In most cases these are good quality, fertile lands with irrigation. Investors have a tendency to target land with high yield gaps, good accessibility and considerable population densities. Spatial analysis of land deals reveal that they tend to target cropland where the yield gap is relatively large, and where additional inputs (water, fertilizers, seeds, infrastructure and know-how) may create greater yields. For example, land acquisitions in Mali and Senegal are heavily concentrated in the irrigable areas of the Ségou Region and the Senegal River valley, respectively (Cotula and Polack 2012). Accessibility is another criterion for choice of target area: the majority of deals may be less than three hours away from the next city. The lands targeted by investors are located near roads and markets. More than 60 percent of all land deals target areas with population densities of more than 25 persons per km² (Anseeuw et al 2012). Approximately 45 percent of the land deals

included in the Land Matrix database concern cropland or crop-vegetation mosaics. Intensive competition for cropland with local communities is therefore likely. Even where national indicators may suggest large reserves of suitable land, transactions are often found within cultivated areas and farmland. This finding questions the assumption that investments are mostly focused on non-utilized land and serve to bring it into production. It has important implications for food security, especially if the crop is destined for exportation.

In addition to the direct risks in terms of reduced food availability at the local level, there are other risks associated with large-scale land acquisition, especially in countries where local land rights are not clearly defined and governance is weak. These risks include the displacement of local smallholders, the loss of grazing land for pastoralists, the loss of income for local communities, and in general, negative impacts on livelihoods due to reduced access to resources, which may lead to social fragmentation. For example, while rural communities often derive incomes from the collection of timber and non-wood products in forests, forested areas are highly affected by land acquisitions. Some 24 percent of the land deals surveyed by the Land Matrix Project are located in forested areas, representing 31 percent of the total area of land acquisitions.

These negative effects may generate conflict. The risk of adverse environmental impacts is important too. All these risks have been highlighted by a wide range of institutions including farmer organizations, research institutes, regional farm groups, governments, the media, development agencies, non-governmental organizations and multilateral organizations. They have rightly generated much concern and international debates. To some extent, this focus on large-scale land acquisition and its risks has tended to overshadow the fact that developing countries have a considerable need for more investment in their agricultural sector. The question of agricultural investment is much broader than land acquisition and many

investment projects do not involve the transfer of control over land.

6. Urgent need for agricultural investment in developing countries

Agricultural investment is the most important and most effective strategy for poverty reduction in rural areas, where the majority of the world's poorest people live (World Bank 2008). Investing in agriculture reduces poverty and hunger through multiple pathways. Farmers invest to enhance their productivity and incomes. From society's point of view, this in turn generates demand for other rural goods and services and creates employment and incomes for the people who provide them -- often the landless rural poor. These benefits ripple from the village to the broader economy. Agricultural investment is also key to eradicating hunger through all of the dimensions of food and nutrition security. Agricultural investment by farmers or the public sector that increases productivity at the farm level can also increase the availability of food on the market and help keep consumer prices low, making food more accessible to rural and urban consumers (Alston et al. 2000). Lower priced staple foods enable consumers to supplement their diets with a more diverse array of foods, such as vegetables, fruit, eggs, and milk, which improves the utilization of nutrients in the diet (Bouis, Graham and Welch 2000). Finally, agricultural investments can also reduce the vulnerability of food supplies to shocks, promoting stability in consumption.

However, low investment in the agricultural sector of most developing countries over the past 30 years has resulted in low productivity and stagnant production. The recent food crisis has exposed these weaknesses, as agricultural production was slow to respond to rising prices. Yet, the agricultural sector faces a considerable challenge over the next four decades. World agriculture must feed a projected population of 9 billion people by 2050, some 2.5 billion more than today, and most of the growth in population will occur in countries where hunger and natural

resource degradation are already rife. Crop and livestock production systems must become more intensive to meet growing demand but they must also become more sustainable (FAO 2011, Save and Grow). Sustainable intensive production systems are capital-intensive; they require more physical, human, intellectual and social capital in order to sustain and rebuild the natural capital embodied in land and water resources. Additional investments of at least US\$83 billion annually are needed in agriculture to meet targets for reducing poverty and the numbers of malnourished (Schmidhuber, Bruinsma and Boedeker 2009). Doing so in a sustainable manner that preserves natural resources and is conducive to long-term development will require even more funds. Increased investment by the public sector in developing countries will be necessary, which implies a reversal of the declining trend observed over the past decades. The share of public spending on agriculture in developing countries has fallen to around 7 percent, and even less in Africa (Hallam 2011). Investment is stagnant or falling in regions where hunger is most widespread (FAO 2012). Higher and more volatile food prices have reawakened policymakers to the importance of agriculture, and they have responded by increasing commitments to supporting the sector. This renewed attention to agriculture offers an opportunity to prepare for these challenges. Public investment by governments plays an essential role in creating the necessary conditions and enabling environment in which farmers can thrive, and in catalyzing and channelling private investment towards socially beneficial outcomes. The public sector also provides public goods which benefit society but for which private incentives are lacking. However, public-sector investments alone will not be sufficient. An increase in investment by the private sector is needed, in particular a rise in the investments made by farmers themselves, who account for the bulk of investment in agriculture. A recent study shows that farmers are by far the largest investors in agriculture (Lowder, Carisma and Skoet 2012). Annual investment in on-farm agricultural capital stock exceeds government investment by more than 3 to 1 and other resource flows by a much

larger margin. On-farm investments are more than twice as important as all other sources of investment combined. Particular attention must be paid to ensuring that smallholders, many of whom are women, are able to invest on their farms and benefit from other public and private investment. This requires the existence of an enabling investment climate and the provision of public goods such as research and extension, market institutions and infrastructure, training and education, and risk management tools.

However, in spite of the new priority given to agriculture, many developing countries have limited financial capacity to fill the investment gap. Commercial bank lending to agriculture is less than 10 percent in sub-Saharan Africa, while microfinance loans are usually too small and not suited to capital formation in agriculture (Da Silva and Mhlanga 2009). It is unlikely that the solution will come from international donors either, as the share of official development assistance going to agriculture has fallen from around 10 percent to 5 percent (Hallam 2011). Recent summits of the G8 and G20 have made strong commitments to supporting increased investment in developing country agriculture for food security. This is a positive development. Nevertheless, in view of the unfolding economic crisis in the major industrialized nations and the slowing of growth in large emerging economies, international aid is unlikely to increase sufficiently to meet the investment needs in the short and medium terms.

Given the limitations of alternative sources, foreign direct investment could make a contribution to bridging the investment gap in developing countries' agriculture. The available data show that agricultural FDI is very small compared with domestic agricultural investment. Further, the agricultural sector still accounts for a very small percentage of total FDI inflows in most developing countries. A review of case studies on sub-Saharan Africa suggests that less than 5 percent of FDI goes to agriculture (Gerlach and Liu 2010). There is a potential for growth if more investments can be directed to the sector. While FDI cannot be expected to become the main source of capital, it can potentially generate

various types of benefits for the agricultural sector of the host country such as employment creation, technology transfer and better access to capital and markets. However, these benefits cannot be expected to arise automatically and the risks discussed above are real. Consequently, the challenge for policy makers, development agencies and local communities is to maximize the benefits of foreign agricultural investment while minimizing its risks. This requires the capacity to orient foreign investments towards the right type of projects. Whether this objective can be met will depend on a large number of factors, among which the legal and institutional framework in place in the host country and the local context are critical.

7. The development potential of inclusive business model

In view of the risks associated with large-scale acquisition of land and a number of prominent project failures, there have been calls for the promotion of alternative business models that would involve the local community more actively. Arguably, inclusive business models that involve smallholders in production and/or other related activities have the potential to minimize the risks and maximize the benefits of agricultural investment. In 2009, FAO, the International Fund for Agricultural Development (IFAD) and the Swiss Development Cooperation (SDC) contracted the International Institute for Environment and Development (IIED) to prepare a conceptual paper on inclusive business models for investment in agricultural land aimed at raising productivity and promoting agricultural production for the market. IIED reviewed relevant literature and its own stock of field research and knowledge to identify key issues related to various business models for investment in agriculture, and the land tenure implications of such models. The study found that among the different business models reviewed, no single model was the best possible option for smallholders in all circumstances. The adequacy of a model was found to depend closely on the local context and to be contingent on tenure, policy, culture, history and biophysical and demographic factors. None of the models could be described

as a holistic solution to rural development. In addition, the study suggests that the practical arrangements of the project may be more important than the category of model (Vermeulen and Cotula 2010). As a result, there is a need for a deeper understanding of inclusive business models through the detailed analysis of concrete experiences in the field.

8. Objectives, scope and methodology

Although there has been much debate about the potential benefits and risks of international investment, there is no systematic evidence on the actual impacts on the host country. In particular, there is a lack of detailed and reliable data. Also, there is a need for more evidence on the workings and impacts of inclusive business models through the detailed analysis of projects implemented in the field. In order to acquire an in-depth understanding of potential benefits, constraints and costs of foreign investment in agriculture and of the business models that are more conducive to development, FAO's Trade and Market Division (EST) has undertaken research on the impacts of international agricultural investment. The research aims to provide better knowledge on the trends and impacts of foreign direct investment on host communities and countries, to gather evidence on inclusive business models, to identify good practices and to develop guidance for host governments. To this end, FAO designed and directed case studies in selected developing countries. The studies were conducted in partnership with research institutions (the International Institute for Environment and Development (IIED) for Ghana, Mali and Zambia; the *Cambodia Development Resource Institute* (CDRI) for Cambodia) or through the direct recruitment of local researchers and consultants.

The studies covered three developing regions where foreign investment in primary agricultural production has tended to concentrate in the past six years, namely Africa, Asia and Latin America. Among these regions, the studies give particular emphasis to Africa, as it is arguably the region where the problems raised by large-scale land

acquisition are the most urgent. More specifically, the African studies presented in this publication focus on Sub-Saharan Africa, as North Africa was already covered to some extent by the analyses undertaken by FAO's Regional Office for the Near East in 2009-2010 (Tanyeri-Abur and Hag Elamin 2011).

The studies examined the trends in agricultural FDI and its economic, social and environmental impacts in host countries. They reviewed the recent trends and current situation of large scale agricultural investments and land acquisitions in the selected countries, with special attention to various types of business models, distinguishing those with and without land acquisition. They analysed the factors determining the impacts and their relative significance. Two types of case studies were undertaken. The first type focused on national policies to attract FDI in agriculture and their impacts on national economic development. These studies covered Brazil, United Republic of Tanzania, Thailand and Uganda. The second type also reviewed the national policy framework, but then went on to examine the business models of selected agricultural investments in five developing countries and assess their economic, environmental and social impacts at the local and, when possible, national levels. This group of studies covered Cambodia, Ghana, Mali, Senegal and Zambia. Although the main subject of the studies was foreign investment, a few relevant large-scale agricultural investment projects by domestic investors were also examined.

More specifically, these studies analysed the drivers and the main actors (national and international) in each country, as well as the institutional process and national governance context framing the process of decision resulting in investments and land allocations (or the absence of land acquisitions, where relevant). They examined the specific policy measures that had an impact on the investment project, the economic inclusion of local smallholder farmers in the business model of the large investment projects and the participation of women where relevant. Where possible, the

research investigated the contextual situation prior to the investments concerning land tenure patterns (land ownership, use and control), human capital situation with respect to education, training, extension and vocational education and the employment opportunities available (farm and non-farm as well as the working conditions by sex/age). It analysed the design and implementation of different business models in each country, including land-based and non-land investments; the process that led to the choice of a particular model; the policy measures (incentives, support, constraints) that influenced the process; and the success factors, the constraints encountered and the solutions adopted to overcome them. The studies also analysed the actual economic, social and environmental impacts of the business models studied. In particular, they assessed the effects on smallholder farmers and local communities within a gender and equity perspective such as income generation, improvement in welfare, employment/working conditions on and off farm, value addition, knowledge diffusion/spillovers, transfer of technology, skills development, forward and backward linkages, improvement in access to markets/capacity to trade and involvement of institutions such as farmers organizations.

Finally, the studies identified best practices and lessons learnt in terms of policy measures that are conducive to successful investment projects where the host country, the local community and the investor all benefit from the investment.

9. Contents

This publication examines the trends and impacts of FDI in developing country agriculture, in particular through the presentation of the main findings of the case studies. After the introduction, the second part provides an overview of the global trends in foreign agricultural investment in developing regions using various sources of statistical data. Part three presents case studies on policies to attract FDI in agriculture and their impacts on national economic development in selected countries in Africa, Asia and Latin America. The fourth

part examines the business models that were used in selected agricultural investments in five developing countries. It assesses their economic, environmental and social impacts at the local level and how they are influenced by national policies. The fifth part draws a synthesis of the studies' findings. Finally, part six offers conclusions and recommendations.

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PART
TWO



OVERVIEW OF TRENDS IN
FOREIGN DIRECT
INVESTMENT (FDI)

1. Introduction¹

Foreign Direct Investment (FDI) has contributed significantly to growth and development in many developing countries over the last three decades, although, the benefits have not been evenly distributed. The countries that have benefited the most are those (e.g. Brazil, Malaysia, Republic of Korea, etc.) in which the conditions for harnessing inflows of foreign capital were in place and the opportunities and risks associated with current and future market developments were clearly understood by both investors and host country policy makers. These include – political stability, investments-friendly regulatory and policy frameworks, skilled or easy-to-train manpower, market size or proximity to large markets with minimal trade and physical barriers, etc. However, several developing countries have seen FDI's contribution to growth (in terms of GDP) at very high rates even without the development-friendly conditions in place. In such countries, (e.g. Nigeria, Zambia, etc.) this has been mainly due to the very high returns on investments from mainly extractive industries although the development benefits are still indeterminate.

In many developing countries, FDI in the agricultural sector has been mostly concentrated in the up-stream sub-sectors – food processing, beverages and related allied sectors. However, in many developing countries, the ongoing food and financial crises have witnessed a surge in investments in large tracks of land to grow and export food and biofuel crops to investor countries.

This recent upswing in domestic private and foreign investments in agricultural industries has come about as a result of several factors. First, as the expanding populations of emerging nations experience rapid economic growth, individual incomes have increased and they are spending more on food. Further, their tastes are shifting to a richer diet including more meat, fish and milk products. In order to satisfy demand, these countries have to import some of these food items thereby creating opportunities for

both domestic and foreign investors to invest in agricultural industries in developing host countries. Because of policies limiting land use for agriculture in many developed countries, some of this investment is now happening across emerging nations--South-South investment. Another factor is the increase in biofuel initiatives around the world, particularly in Brazil, the United States, and the European Union. These have resulted in an increase in investment in developing countries in crops such as sugarcane, cereals and oilseed. In addition, countries such as Saudi Arabia, Republic of Korea and United Arab Emirates; all with limited arable land and/or insufficient water for irrigation, are buying large plots of land in soil rich developing countries in order to counteract export restrictions. Finally, speculation and portfolio diversification have also been noted as key factors.

Using data from UNCTAD², FAO³ and fDi Markets databases⁴, this chapter examines broad trends in FDI (inward flows and stocks) and where possible their general tendencies in the agricultural sectors of developing regions (Africa, Asia and Latin America and the Caribbean) and the nine countries whose agricultural sector investment structures, profiles, incentives, business models, etc., are evaluated in the ensuing chapters. The countries are: Brazil, Cambodia, Ghana, Mali, Senegal, United Republic of Tanzania, Thailand, Uganda and Zambia.

¹ Chapter prepared by Suffyan Koroma and Massimo Iafrate, Trade and Markets Division, FAO.

² FDI data from UNCTAD were obtained from: <http://unctadstat.unctad.org/ReportFolders/reportFolders.aspx>

³ FAO data on agricultural capital stocks were obtained from: <http://faostat3.fao.org/home/index.html#DOWNLOAD>

⁴ The fDi Markets Database is available at: <http://www.fdimarkets.com/>

2. FDI's contribution to growth



Although FDI has made significant contribution to growth in many developing countries, for a good number of them, the development effects are yet to be realized. However, considerable efforts are needed to collect and maintain data and databases on FDI flows in a coherent and consistent manner to enable analysis of its long-term development effects.

FDI has been shown to play an important role in promoting economic growth, raising a country's technological level, and creating new employment in developing countries (Borenzstein, De Gregorio, and Lee. 1998)⁵. It has also been shown that FDI works as a means of integrating developing countries into the global market place and increasing the capital available for investment, thus leading to increased economic growth needed to reduce poverty and raise living standards. At the same time many countries have understood the role played by FDI and they have taken steps to remove investment barriers. For example, during the 1990s, 1000 FDI law and regulations were amended of which 94 percent were amended principally to attract FDI (UNCTAD, 2010)⁶. In an effort to attract FDI, many countries have implemented incentives including tax exemption, government pledges, tariff reduction on equipment and machinery imports, subsidy, etc. These are dealt with in greater detail in the country case studies.

It is worth pointing out, at the outset, that data on investment flows and stocks are often not collected in a consistent manner and suffers from several shortcomings including country

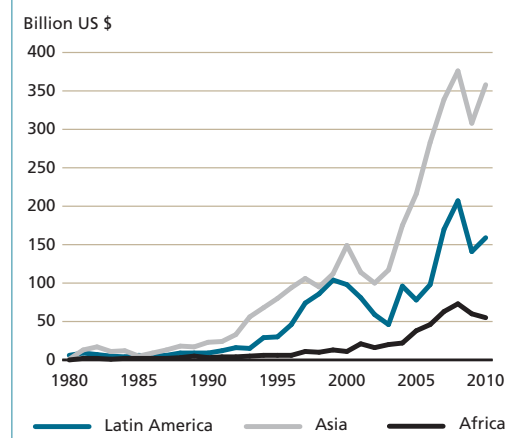
coverage, inconsistent sectoral classification and categorization, etc. In this regard, it was observed by (Lowder and Carisma, 2011)⁷ that the long-term aggregate growth in FDI is more due to the expansion of countries reported with data than an overall trend movement. However, in this analysis, country level data are utilized as much as possible which might overcome the problem noted above.

Figure 1 depicts the long-term trend (1980-2010) of FDI flows for Africa, Asia and Latin America. FDI flows to each of these three regions over the last two decades starting from the 1990s have been growing at an average annual rate of 15.3 percent in Africa, 14.3 percent in Latin America and 16.8 percent in Asia.

Figure 2 presents the trends in FDI for the African countries under consideration with the behaviour of the trends exhibiting identical

FIGURE 1

Trends in FDI flows to Africa, Asia and Latin America, 1980-2012



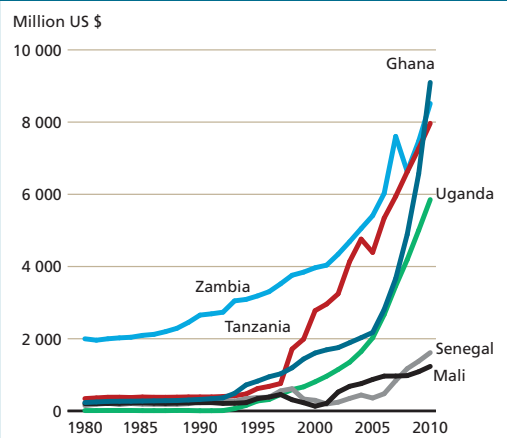
Source: Adapted from UNCTAD, 2009

⁵ Borenzstein, Eduardo; Jose De Gregorio and Jong-Wha Lee: *How does Foreign Direct Investment Affect Economic Growth?* Journal of International Economics, 45: 115-135 (1998)

⁶ UNCTAD (2010): *World Investment Report 2010*, United Nations, New York.

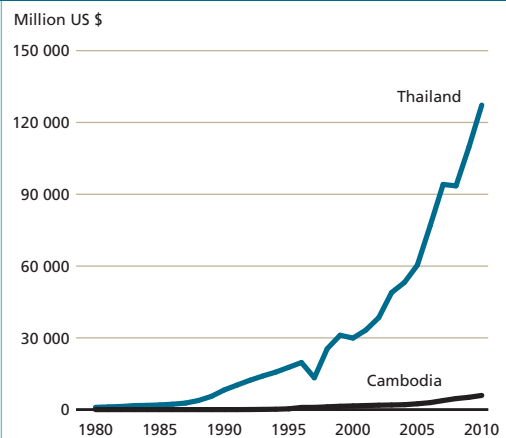
⁷ For a detailed exposé of the global databases on FDI, see: Sarah K. Lowder and Brian Carisma, Financial resource flows to agriculture: A review of data on government spending, official development assistance and foreign direct investment; FAO-ESA working paper No. 11-19; December 2011 - www.fao.org/economic/esa. This paper presents a detailed analysis of existing databases on FDI with a critique of their strengths and shortcomings.

FIGURE 2
Trends in FDI-African case study countries, 1980-2010



Source: Adapted from UNCTAD, 2009

FIGURE 3
Trends in FDI for Asian case study countries, 1980-2010



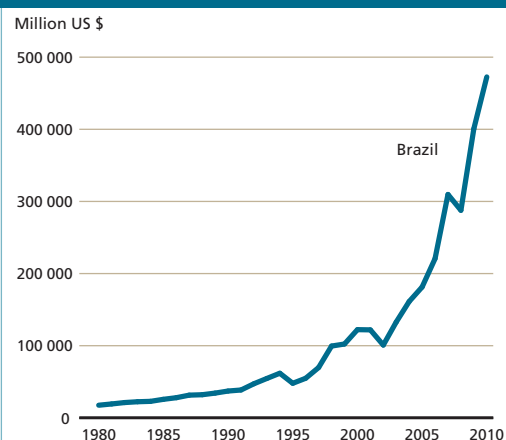
Source: Adapted from UNCTAD, 2009

patterns as the aggregate. The African countries in our case study all show increasing and upward trend in FDI flows during the mid-1990s. Zambia, Ghana, United Republic of Tanzania and Uganda all exhibits steep upward trends while for Senegal and Mali, the trend growth is rather stable. In terms of value, Ghana surpassed Zambia in 2010 as an important destination of FDI inflows primarily due to the recent discovery of petroleum. Figures 3 and 4 also depict trends in FDI for case study countries in Asia and Brazil, which also indicates that growth in FDI started during the 1990s.

From our data, it is clearly evident that FDI has made significant contribution to growth in many developing countries over the 1980-2010 periods. Using our case study countries as example (Table 1 and Figure 5), the longterm contribution of FDI to GDP is as high as 83.8 percent in Zambia. Senegal (6.4 percent) and Uganda (8.9 percent) are the only two out of eight countries in which FDI's contribution to growth has been less than 10 percent.

Over the period 2000-2010, FDI has contributed in excess of 20 percent to GDP in the following countries: Brazil (22 percent), Cambodia (43 percent), Ghana (30 percent), United Republic of Tanzania (32 percent), Thailand (34 percent) and

FIGURE 4
Trends in FDI flows to Brazil, 1980-2010



Source: Adapted from UNCTAD, 2009

Uganda (22 percent). In the case of Zambia, FDI has made very significant contribution to GDP even at relative low levels compared to other part of the world. FDI flows to Zambia, Africa's top copper producer, hit a record US\$2.4 billion in the first half of 2010 from US\$959 million the previous year due to a mining and manufacturing boom with expected creation of 33 140 jobs. Between January

TABLE 1
Contribution of FDI stocks to GDP

Country study	1980-1990	1990-2000	2000-2010	1980-2010
	(%)			
Brazil	11.0	11.5	21.7	14.7
Cambodia	4.3	18.9	43.4	22.2
Ghana	6.6	13.2	30.2	16.7
Mali	14.5	10.3	12.9	12.6
Senegal	5.5	7.1	6.6	6.4
U.R. Tanzania	5.6	11.8	31.9	16.4
Thailand	5.3	14.2	34.2	17.9
Uganda	0.3	4.7	21.8	8.9
Zambia	72.6	96.6	82.3	83.8

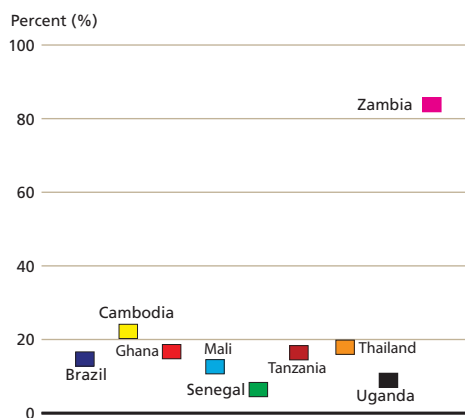
Source: Adapted from UNCTAD, 2009

and June 2010, FDI flows into manufacturing, much of it from China, totalled US\$768 million, followed by mining with \$593 million and the energy sector with US\$565 million.

In the Latin American region, Brazil, the only case study country for that region is often described as one of the hottest destinations in the world inbound FDI. Many multinational companies are seeking to enter with new or expand existing FDI projects due to Brazil's market size, growing middle class and the country's demonstrated ability to yield high rates of returns on investment with many attractive linkages of spillover effects. In fact, according to UNCTAD's Global Investment Trends Monitor, Brazil was the tenth largest recipient of FDI in 2010 with over US\$30 billion in new inbound FDI projects up from the 13th slot and US\$22 billion in new inbound FDI a decade ago⁸.

In the case of Cambodia, where FDI's contribution to GDP was 22.2 percent over the long term 1980-2010, as a result of significant reforms undertaken during the 2000-2010 period, FDI and local investment approvals increased by about 160 percent in 2011, and continued attracting new entrants such as Japanese investors. FDI approvals for Japanese investors accounted

FIGURE 5
Contribution of FDI stock to GDP - case study countries, 1980-2010



Source: Adapted from UNCTAD, 2009

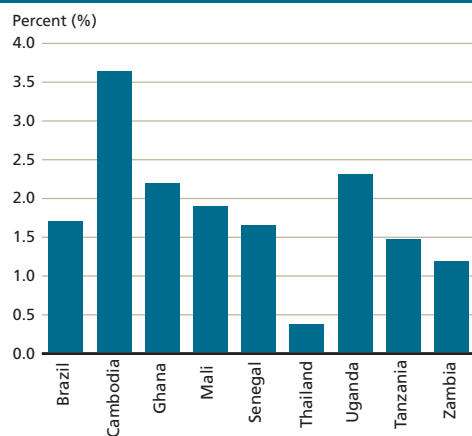
for US\$6.4 million in fixed assets (three projects) compared with none in 2010. Cambodia's top five investors in were the United Kingdom, China, Viet Nam, Malaysia and Republic of Korea.

A total of 87 projects worth US\$5.6 billion were approved by the Council for the Development of Cambodia during 2011. Most of the investments were directed at the key sectors like construction and tourism, real estate, banking and product exports. Garment exports appear to have benefitted from a shift of labour intensive industries from China to lower wage cost countries like Cambodia. Cambodia experienced an 18 percent increase in the number of new investments in garment factories. In addition, milled rice exports have been experiencing a huge expansion recently, recording annual growth of 250 percent and reaching 180 000 tonnes during 2010 and 2011. Despite the floods, rice production is anticipated to increase on the back of increased yields in both wet and dry season production and increased planted-areas. Milled rice exports were also supported by the establishment of new investments in mills that increased milling capacity.

Under normal market conditions, a key ingredient for attracting FDI is the level and development of agricultural capital stock available in a country. This is usually referred to as capital formation and is conventionally defined as the

⁸ <http://blogs.worldbank.org/psd/brazil-s-new-fdi-frontier-north-and-northeast-regions>

FIGURE 6
Average annual growth in capital stock,
1975-2007

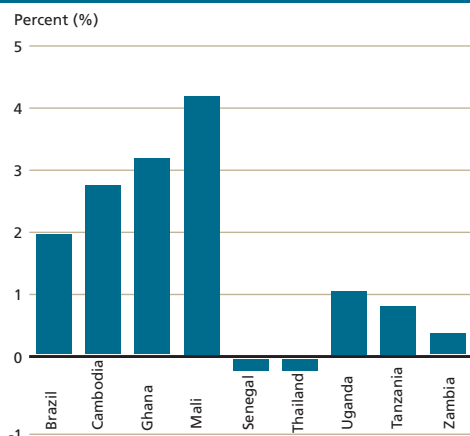


Source: Adapted from UNCTAD, 2009

stock of tangible, durable fixed assets owned or used by resident enterprises for more than one year. This includes plant, machinery, vehicles and equipment, installations and physical infrastructures, the value of land improvements, and buildings. Statistically it measures the value of acquisitions of new or existing fixed assets by the business sector, governments and households less disposals of fixed assets. Estimates of agricultural capital formation or stock are currently available from FAO for 206 countries⁹. Using these estimates, the long-term average annual growth rates of the value capital stock and two of its components – value of land improvements and machinery and equipment are provided for the case study countries from 1975 to 2007.

Figure 6 presents the average annual growth rates in capital accumulation for all nine case countries over the period 1975-2007. Cambodia has experience the largest long-term growth in capital accumulation of 3.6 percent per annum, followed by Uganda 2.2 percent per annum and Ghana 2.1 percent per annum. The remaining six countries all experience growth rates in capital accumulation of less than 2 percent per annum. For Brazil and Thailand which are both highly efficient agricultural

FIGURE 7
Average annual growth in the value of
land asset, 1975-2007



Source: Adapted from UNCTAD, 2009

producing countries, the low level of average long-term capital accumulation might be revealing of the fact that having had successful developments in agricultural capital stock over time, the pace of capital accumulation is now slowing down.

In terms of land development (Figure 7), with the exception of Senegal and Thailand both of which exhibits negative long-term growth in land development, all the other eight countries exhibit longterm annual growth rates ranging from a low of 0.3 percent to 4.1 percent per annum over the 32 year period from 1975-2007. In the case of Thailand, the rate of land development may have reached a saturation point hence the downward trend being influenced by more stringent environment and land degradation policies. For Senegal, the negative trend on land developments is more a reflection on the scope for more investment in land improvements.

In the case of growth in investment in machinery and equipment (Figure 8), Thailand exhibits the strongest annual long-term growth of around 4 percent followed by Uganda, Cambodia and Mali. In the case of Brazil which is a major user and producer of machinery and equipment, the modest 2 percent long-term annual growth suggests a levelling-off or saturation of investments in the stock of new agricultural machinery and equipment over the long run.

⁹ <http://faostat3.fao.org/home/index.html>

3. FDI flows to agriculture are still relatively low compared to other economic sectors



Although they have experienced a large surge recently, FDI flows to Agriculture are still relatively low compared to other economic sectors.

Within the broad agricultural sector, FDI is concentrated mainly on the downstream activities (processing, manufacturing, trade and retail), leaving primary agriculture to demise in public sector funding. FDI flows to agriculture tend to increase during periods of both extreme high and low commodity prices.

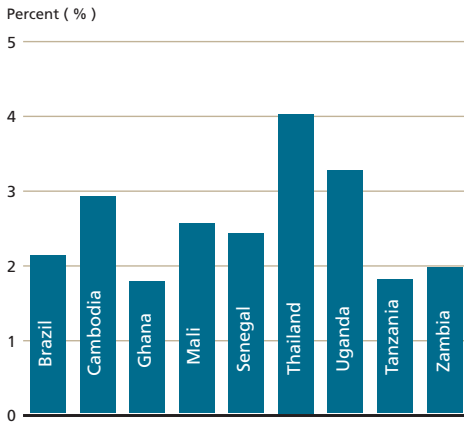
Available data on global FDI flows to agriculture are generally incomplete due to poor reporting, collection and dissemination efforts coupled with secrecy due to the sensitive nature of most of the investments. In the ensuing analysis, data from both UNCTAD and FDI Market databases are used. The data from UNCTAD categorize FDI to agriculture as those related to crops, livestock, fishing, forestry and hunting. These are further sub-categorized as primary and processed (food, beverages and tobacco). The UNCTAD data run from 1980-2008. In the case of the FDI Market data, FDI to agriculture covers all activities related to food, beverages and tobacco. The system reports only Greenfield investments¹⁰ and the data run from 2003 to 2011¹¹.

Figure 9 depicts the evolution of trends in the share of agriculture in total FDI inflows. Despite

¹⁰ Green Field Investment is a form of FDI where a parent company starts a new venture in a foreign country by constructing new operational facilities from the ground up. The alternative “Brown Field Investments” occurs when a company or government entity purchases or leases existing production facilities to launch a new production activity or expand existing activities.

¹¹ Although the database managers are doing their best to record all investments, some investments may not have been known and therefore the figures should be treated as estimates.

FIGURE 8
Average annual growth in stock of machinery and equipment, 1975-2007



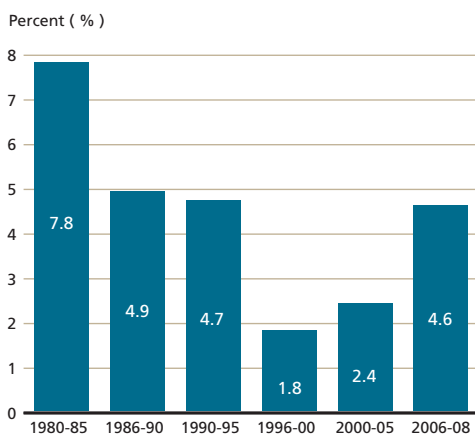
Source: Adapted from UNCTAD, 2009

its importance, global FDI flows to agriculture have never exceeded 8 percent since the 1980s. The period between 1996 and 2000 was the worst recorded since the 1980s as the share of FDI to agriculture was at its lowest – at less than 2 percent. Although it has risen since, during 2006-08 it stood at a modest 4.6 percent of total FDI flows globally.

Within the FDI inflows to agriculture, the lion’s share has been invested in manufacturing and higher-stage processing sectors including the food retail sector, while inflows to primary agriculture have remained below 15 percent (Figure 10). However, it should be noted that for the two databases used in this analysis, it is the end-stage activity that is reported, i.e. if a company invests in land to grow relevant crops, process and produce biofuel or juice, this would be reported as investment in processing. In this case, it is really difficult to assess the trends in broad terms, except with very detailed micro-level data at the firm or enterprise level.

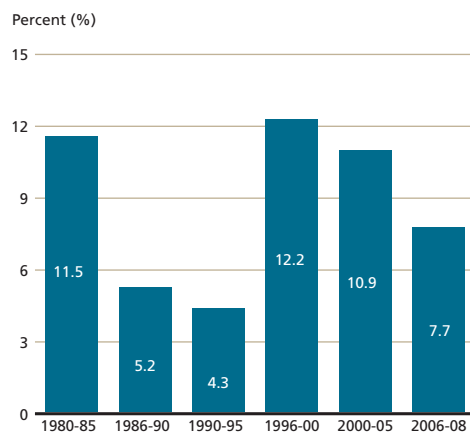
From both Figures 9 and 10, one can observe that the period 1996-2000 from Figure 9 was the one with the lowest level of FDI inflows to the agriculture sector; but from Figure 10 it represents the period in which primary agriculture experience its highest share (12.2 percent) of FDI inflows

FIGURE 9
Share of agriculture in total FDI flows



Source: Adapted from UNCTAD, 2009

FIGURE 10
Share of primary agriculture in total agriculture FDI inflows



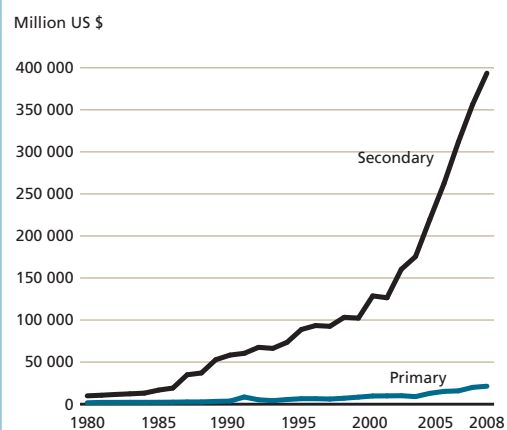
Source: Adapted from UNCTAD, 2009

almost three-fold increase. It should be recalled that this was a period of low and declining global agricultural commodity prices. However, in the recent period of higher commodity prices, we are witnessing a similar trend (Figure 11). Thus, can one conclude that during both periods of extremely high and low commodity prices, FDI flow to agriculture increases.

Figure 12 presents more recent data on FDI flow to agriculture at the global level¹². The period of the global food crisis 2008-9 witnessed the largest inflow of FDI into agriculture totalling US\$25 billion, almost doubling the level five years earlier in 2003. This lends further support to the evidence from using the UNCTAD data. FDI inflow to agriculture seems to have peaked in 2009, however, its level in 2011 is higher than the average for the entire period from 2003-11. Although the recent spike in FDI flows to agriculture has renewed emphasis on private sector investment as the important and missing element to overcome food insecurity and poverty in many developing countries, the trend has

reversed after 2009. Similar behaviour has been experienced during earlier global food and economic crises.

FIGURE 11
FDI flows to primary and secondary agriculture



Source: Adapted from UNCTAD, 2009

¹² Data used in this section are from the FDI Markets database – www.fdimarkets.com. Under this database, agricultural investments flows are defined as investment flows into the food, beverages and tobacco sectors.

4. FDI flows to agriculture by source and destination



In terms of FDI flows to agriculture by source and destination – with the exception of Africa, where most of the investment flows originated from outside the continent or region, a major characteristic of investment flow into agriculture is that the destination of larger share of the investments flows are to the same region from where it originated.

At the global level, data from the fDI markets database suggests that total investment flows into agriculture between 2003 and the first half of 2011 amounted to US\$143.3 billion. Although, the growth in investment flows to agriculture almost doubled from US\$13.6 to US\$25.4 billion between 2007 and 2009, it had however completely reversed to its pre-2007 level by the first half of 2007. This is attributed to the huge amount of investment flows from Asia, America and Europe.

Investment inflows for the case study countries vary widely by amount and sources

(Table 2). Brazil received most of the investments flows and from all regions except Africa. Mali is the only country reported to have received investment from only one region (Europe). Amongst the African countries, Ghana attracted most investments followed by Uganda, Zambia, United Republic of Tanzania, Mali and Senegal.

Below is a summary of regional agricultural investment flows by source and destination. Europe was the source of 48 percent of the 143 billion recorded to have been invested in agriculture since 2003. It is also the recipient of about 37 percent of the investment flows, making it both the most important source and destination of investment flows into agriculture during the 2003-2011 periods. The Americas (which includes both North and South America and the Caribbean) ranked second as a source but third as a destination with Asia ranking second as a destination but third as a source of investment flows. Although Africa was the source of only 0.7 percent of the total investment flows, it was the destination of about 8 percent surpassing Oceania which received only 2.2 percent of inward flows over the period (Figure 13).

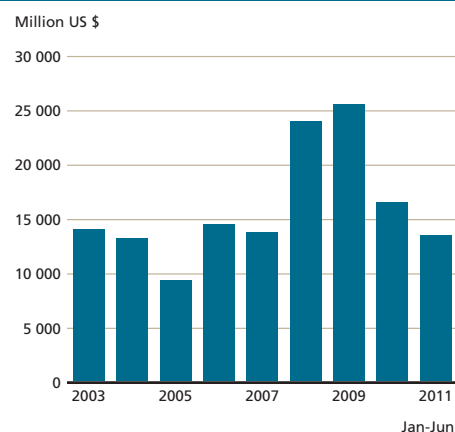
In terms of investment inflows, for Africa (Figure 14), the most important recipient countries are Nigeria (United Kingdom and Netherlands top two sources), South Africa (Switzerland and

TABLE 2
Agro-investment inflow for case study countries (total for period 2003-11)

Recipient countries	Sources of agro-investment inflows
Brazil	America (US\$4.2 billion); Asia (US\$3.3 billion); Europe (US\$2 billion); Oceania (US\$65.3 million)
Cambodia	Asia (US\$159.7 million); Europe (US\$50 million)
Ghana	America (US\$203.5 million); Asia (US\$31.5 million); Europe (US\$1.1 billion)
Mali	Europe (US\$47.4)
Senegal	America (US\$25 million); Europe (US\$10.4 million)
U.R. Tanzania	Africa (US\$21.8 million); America (US\$6.2 million); Europe (US\$136.4 million)
Thailand	America (US\$143.8 million); Asia (US\$1 billion); Europe (US\$460 million); Oceania (US\$49.7 million)
Uganda	Africa (US\$157.8 million); Asia (US\$90 million); Europe (US\$53 million)
Zambia	America (US\$52 million); Asia (US\$155 million); Europe (US\$47.4 million)

Source: computed from FDI markets (www.fdimarkets.com)

FIGURE 12
FDI flows to agriculture



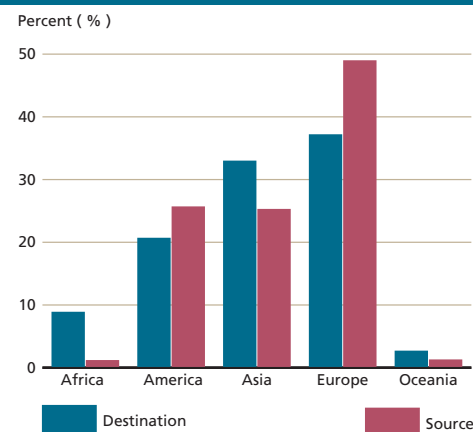
Source: computed from FDI markets (www.fdimarkets.com)

Netherlands), Ghana (United Kingdom and United States), Egypt (Saudi Arabia and Switzerland) and Angola (United States and United Kingdom).

For agricultural investment flows originating from Africa (Figure 15), the main source countries are South Africa with major investments of US\$211.4 million in Africa; US\$36.9 million in the Americas; US\$179 million and US\$5 million in Europe. Egyptian investment is less diversified with investments of US\$300 million in Sudan and US\$14 million in Jordan. Kenya invested US\$107 million in Uganda; US\$22 million in the United Republic of Tanzania and US\$34.4 million in Germany. Investments from Tanzania went to Mozambique (US\$30.4 million) and Uganda (US\$30 million).

Agricultural investment flows into the Americas (Figure 16) originated principally from within the continent. Brazil and the United States are the two top destination countries, with Argentina, Canada and Mexico relatively less important destinations. Amongst the important investor countries from outside America into America with investments of over US\$1 billion are China (investments of US\$4.1 billion), Switzerland (US\$3.7 billion), United Kingdom (US\$2.1 billion), France (US\$1.2 billion) and Japan (US\$1.1 billion).

FIGURE 13
Agricultural investments by source and destination (cumulative, 2003-2011)



Source: computed from FDI markets (www.fdimarkets.com)

The Americas was also a very important source of outward flow of agricultural investments (Figure 17) providing about a quarter of all the investments during 2003-11. The United States was by far the largest investor country at the global level with investments in excess of US\$29 billion. Brazil, Canada and Mexico also provided investments in excess of US\$1 billion.

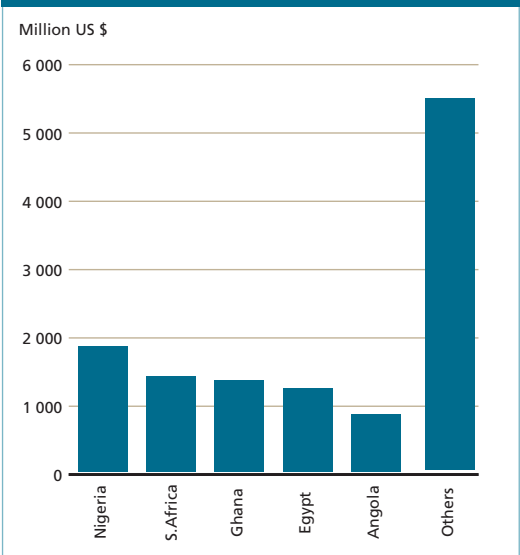
For Asia (Figure 18), agricultural investments were principally destined for China (US\$14.2 billion); India (US\$5.8 billion); Vietnam (US\$4.1 billion); Turkey (US\$4.0 billion) and Indonesia (US\$3.6 billion).

Investment flow from Asia totalled US\$35.5 billion during the 2003-11 periods. The principal share came from Japan (US\$6.3 billion), China (US\$4.7 billion), Saudi Arabia (US\$4.5 billion) and Thailand (US\$4 billion). China was the recipient of the lion's share as indicated above (Figure 19).

In the case of Europe, investment inflows amounted to US\$52.6 billion with Russian Federation, Poland, United Kingdom, Romania and Spain the principal recipient countries (Figure 20).

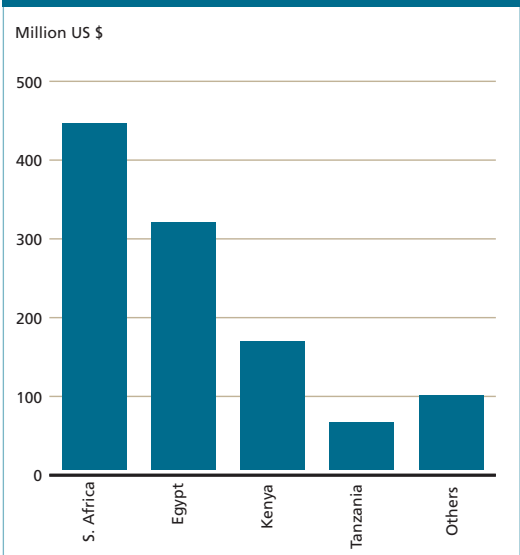
For outward flows, the investments totalled US\$69.4 billion with the United Kingdom attracting the largest share US\$14.1 billion, followed by Switzerland, Germany, Netherlands and France (Figure 21).

FIGURE 14
Agricultural Investment into Africa,
(2003-2011)



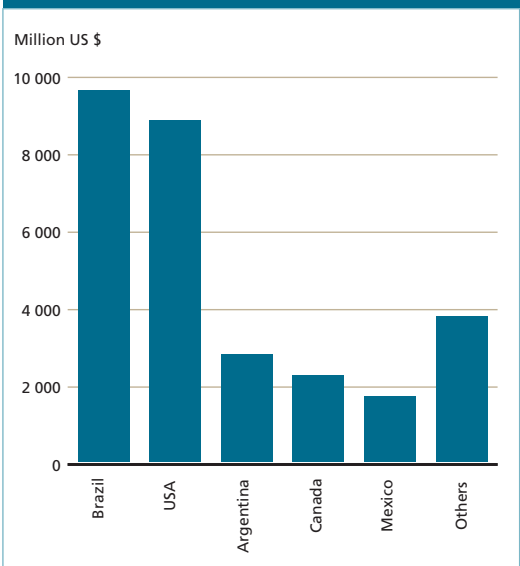
Source: computed from FDI markets (www.fdimarkets.com)

FIGURE 15
Agricultural Investment from Africa
(2003-2011)



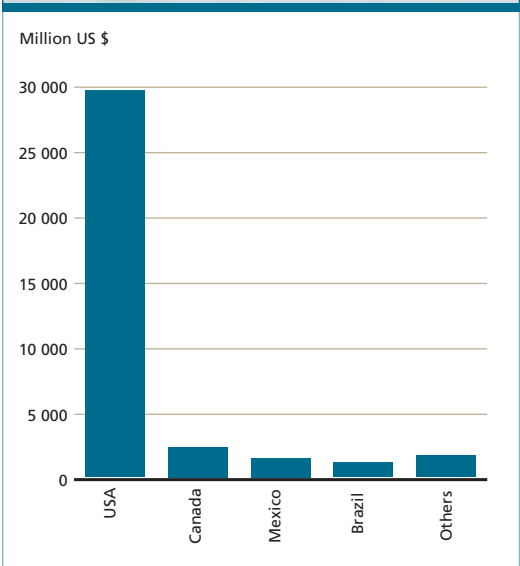
Source: computed from FDI markets (www.fdimarkets.com)

FIGURE 16
Agricultural Investment into the Americas
(2003-2011)



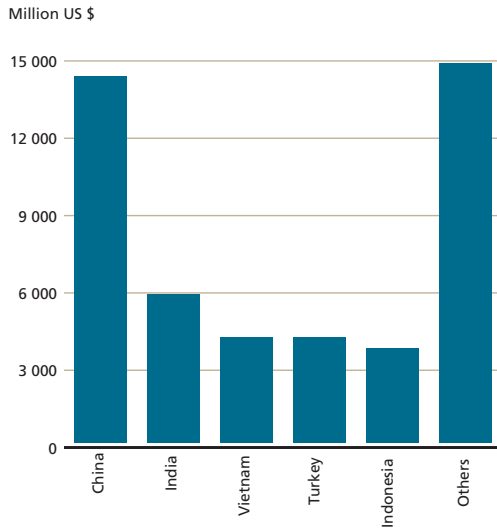
Source: computed from FDI markets (www.fdimarkets.com)

FIGURE 17
Agricultural Investment from the Americas
(2003-2011)



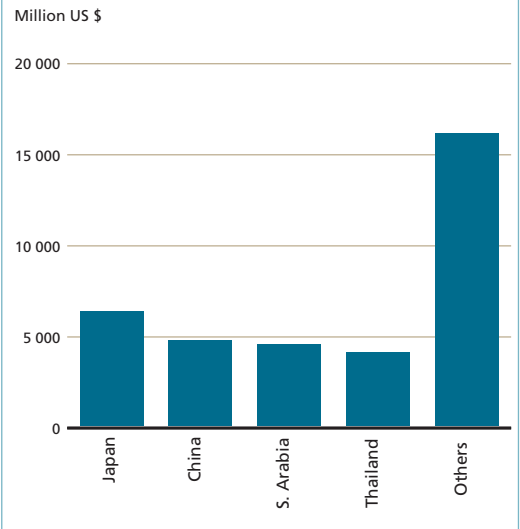
Source: computed from FDI markets (www.fdimarkets.com)

FIGURE 18
Agricultural Investment into Asia
(2003-2011)



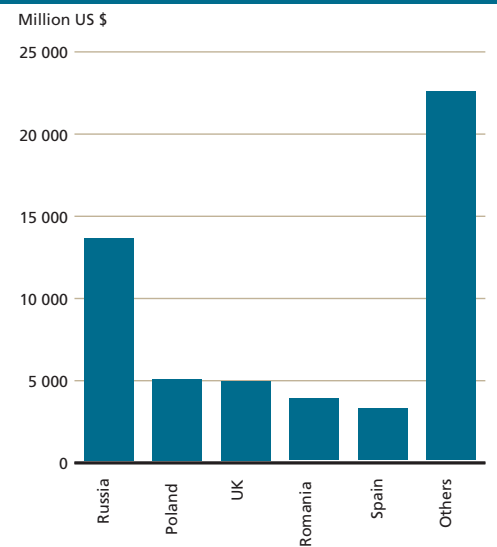
Source: computed from FDI markets (www.fdimarkets.com)

FIGURE 19
Agricultural Investment from Asia
(2003-2011)



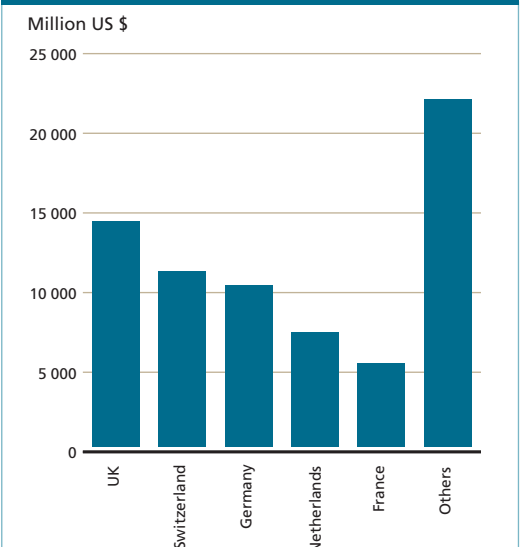
Source: computed from FDI markets (www.fdimarkets.com)

FIGURE 20
Agricultural Investment into Europe
(2003-2011)



Source: computed from FDI markets (www.fdimarkets.com)

FIGURE 21
Agricultural Investment from Europe
(2003-2011)



Source: computed from FDI markets (www.fdimarkets.com)



PART
THREE

POLICIES FOR ATTRACTING
FDI AND IMPACTS ON
NATIONAL ECONOMIC
DEVELOPMENT

Brazil:

Improving the business climate for FDI¹



1. Introduction

This Chapter uses Brazil² as an example to explore the usefulness of a methodology that both determines and improves the attractiveness of a country to foreign investors. This section describes the overall organization of the chapter. Section two quantifies and describes FDI (Foreign Direct Investment) in Brazil, its contribution to the financing of the agricultural sector, and the importance of Transnational Corporations (TNCs). Section three reviews some critical policies and actions that have contributed to Brazil's agriculture sector performance, and presents an overview of the experience learnt from the development of the *Cerrados*. Section four characterizes the business climate in Brazil through various indicators, and describes a model that helps to identify the main factors that affect it using forestry as an example. Section five presents a procedure used by the InterAmerican Development Bank (IDB) whereby a country gets support for improving its business climate. The last section presents the principal conclusions and recommendations.

2. Foreign direct investment in Brazil

This Section describes and quantifies FDI in Brazil, how it contributes to the financing of agriculture sector related investments, and the role of transnational corporations as a source of FDI. This section uses secondary information

from UNCTAD and the Brazilian Central Bank (BCB).

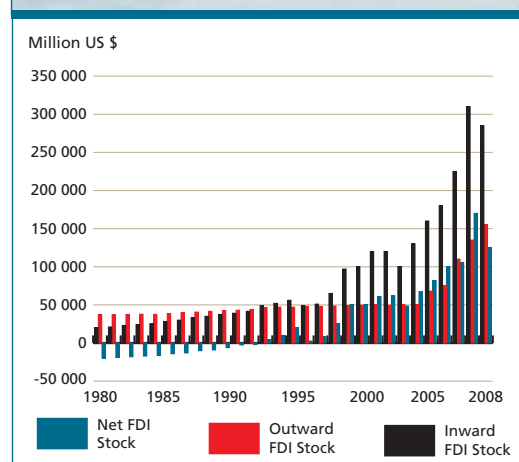
2.1 The comparative importance of FDI in Brazil

Brazil is a relatively large recipient of foreign direct investments. Up to 2008, the country had accumulated a stock of over US\$288 billion in FDI in all sectors of the economy, which represented 45 percent of all FDI in South American countries, and nearly a quarter of the total invested in Latin America and the Caribbean (LAC) Region (Table 1).

While foreign direct investment makes a significant contribution to capital formation, net FDI flows in Brazil have changed over the years. Figure 1 shows that at least from 1980 to the early 1990s, outward FDI stocks were larger than

FIGURE 1

Inward, outward and net FDI stocks for Brazil



Source: Prepared by the author based on data from UNCTAD, 2009

¹ This chapter is based on an original research report produced for FAO by Jose Rente Nascimento, Senior International Consultant.

² Brazil has also become an important direct investor in other countries (Group of Fifteen (G-15)). However, this study concentrates only on the FDI the country receives into its agriculture based sector.

TABLE 1

FDI stock, by regions and economies in Latin America and the Caribbean, 1990, 2000, 2008

Region/economy	FDI inward stock		
	1990	2000	2008
	US\$ millions		
Latin America and the Caribbean	110 547	502 487	1 181 615
South and Central America	101 977	424 180	978 056
South America	73 481	309 057	633 517
Argentina	7 751*	67 601	76 091
Bolivia (Plurinational State of)	1 026	5 188	5 998
Brazil	37 143	122 250	287 697
Chile	16 107*	45 753	100 989
Colombia	3 500	11 157	67 229
Ecuador	1 626	6 337	11 300
Falkland Islands (Malvinas)	*	58*	..
Guyana	45*	756*	1 422*
Paraguay	418*	1 372	2 398
Peru	1 330	11 062	30 232
Uruguay	671*	2 088	8 788
Venezuela, Bolivarian Republic of	3 865	35 480	41 375

Source: Adapted from UNCTAD, 2009

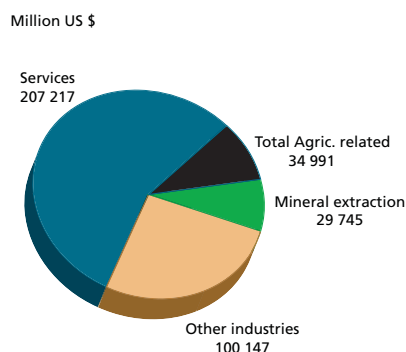
inward flows. Starting around 1995, inward FDI flows became increasingly larger, albeit with apparent random movements from year to year (see Box 1).

Brazil had accumulated by 2009 a total of US\$372 billion in inward FDI stock. Though these were destined mainly to the services sector (Figure 2), agriculture represents an important recipient, especially in recent years. According to UNCTAD (2009), for the period 2005–2007, Brazil received US\$421 million, which corresponds to the third largest amount of inward FDI flow into an agriculture sector after China and Malaysia. The Brazilian Central Bank reports an inward FDI stock of US\$35 billion up to 2009, as shown in Figure 2.

Agriculture is an important sector of the Brazilian economy, but only 10 percent of the total agriculture-related sector inward FDI stock was destined for primary production. The vast majority of the inward FDI stock of the agriculture-related sector, 90 percent, was made

FIGURE 2

FDI stock until 2009, Brazil



Source: Prepared by the author based on data from Brazilian Central Bank, 2010

BOX 1

A brief history of FDI in Brazil

One of the basic characteristics of the Brazilian economy is a high level of internationalization, with foreign corporations playing a leading role in many sectors. This is not a new phenomenon. FDI inflows and the TNCs' leading role in the most dynamic sectors have been key features of the Brazilian industrialization process from its beginnings. Especially from the early postwar years to the end of the 1970s, TNC affiliates, connected to public and private domestic companies by state planning, were fundamental to developing a diversified industrial structure, convergent with that of high-income countries at least in terms of the sectorial composition of output.

In the 1980s, however, the external debt crisis ended the Brazilian economy's long growth cycle. Brazil started to experience highly volatile GDP growth rates, as well as chronic inflation. FDI inflows stagnated at low levels, with TNC affiliates refraining from large-scale expansion projects.

The resumption of investment during the 1990s meant the return to more aggressive expansion strategies by TNC affiliates. Motivated by changes in economic policy and conditions – liberalization, privatization, and macroeconomic stability, followed by an increase in demand for consumer durables – TNCs began to expand their presence in the Brazilian economy again. From approximately US\$1.5 billion annually in the 1980s and early 1990s, FDI inflows increased to an average level of US\$24 billion annually (sic) between 1995 and 2000. It is interesting to mention that the inflows continued to grow through the year 2000, despite the Asian crisis of 1997, the Russian crisis of 1998, and even the Brazilian crisis of 1999. Starting in 2001, with a world economic slowdown considerably reducing trade and investment flows, FDI inflows to Brazil declined, reaching a low of US\$10.1 billion in 2003. In 2004, the volume of FDI went up again, dipping slightly again in 2005....

Important changes occurred in the sectorial composition of FDI inflows as well. Until 1995, the manufacturing sector accounted for almost 67 percent of all FDI stock in Brazil, whereas in the second half of the decade, the prevalence of the service sector was remarkable, with electricity, gas, water, postal services and telecommunications, financial services, and wholesale and retail trade attracting significant FDI flows. A large part of the investment in these sectors was associated with the privatization process. By 2000, the service sector's share in the FDI stock had increased to 64 percent and that of the manufacturing sector had dropped to 33.7 percent, though manufacturing industries such as food and beverages, automotive, chemicals, metallurgy, and telecommunications equipment continued to receive significant volumes of investment.

Between 2001 and 2006, the service sector continued to account for more than half of total inflows although its share dropped compared to the previous period. The manufacturing sector, in turn, accounted for 38.5 percent of the total inflows during this period. Agriculture and mining also grew in importance, accounting for 7.1 percent of total FDI. (Hiratuka, 2008).

into agriculture-related industries, including tobacco, textiles, food and beverages, leather, wood and pulp and paper industries. Among these, food and beverages received 61 percent of the inward FDI, for a total of US\$21.3 billion up to 2009. Forest related industries were second, with US\$6.5 billion of inward FDI stock (Figure 3).

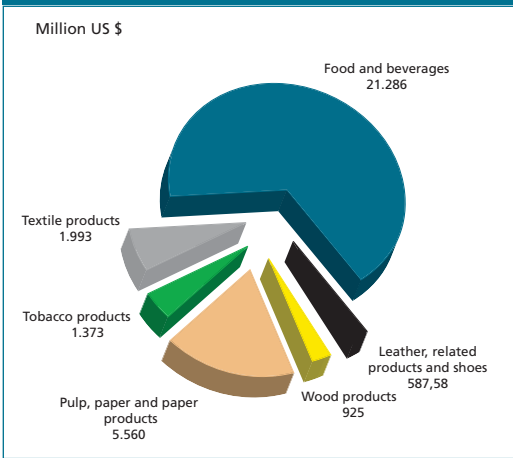
Primary agriculture (including livestock) and its related services is the subsector with the greatest amount of the inward FDI stock, followed by silviculture, forest exploitations, and related services. Fisheries, aquiculture and related services received an almost negligible amount of investment (Figure 4).

Box 1 uses examples from the industry to highlight the history of transnational corporations in Brazil's economy since the 1940s. Examples from agriculture are also easy to identify, especially since the 1990s when the presence of TNCs in the sector has grown substantially (Box 2). Transnational corporations such Monsanto (Box 3), and Corn Products, DuPont, Dow chemical, Bunge, to name a few, have been active in the country for decades, some even for more than a century. The importance of TNC presence in the country can be further

demonstrated in Table 2 which lists the world's 25 largest TNC suppliers of agricultural inputs, all of which are present in Brazil, except for four (Terra Industries, Inc., Bucher Industries AG, Claas KGaA, Aktieselskabet Schouw & Company A/S and Scotts Miracle-Gro Company).

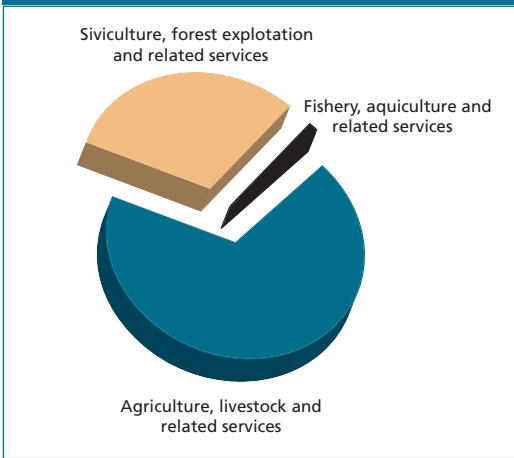
TNCs in Brazil are present at all stages of the value chain; from suppliers of agriculture and forest inputs, to machine and equipment producers, to agriculture or forest output producer, to processors and industrial firms, to wholesalers, retailers and exporters. For instance, Monsanto (Box 3) provides seeds and herbicides for agriculture production; while Louis Dreyfus Commodities Brazil (Box 4) produces, processes, stores, transports and markets commodities (soybeans, rice, corn, cotton, coffee, sugar and ethanol, citrus fruits, and fertilizers); and ArcherDaniels-Midland Company procures, transports, stores, processes and merchandises agricultural commodities and produces fertilizers and biofuels. International Paper (Box 5) and Stora Enso, two of the largest pulp and paper firms in the world, are good examples of forest TNCs invested in Brazil.

FIGURE 3
Inward FDI stocks in agriculture-related industries until 2009 – Brazil



Source: Prepared by the author based on data from Brazilian Central Bank, 2010

FIGURE 4
FDI stocks in agriculture sector (non-industrial) until 2009



Source: Prepared by the author based on data from Brazilian Central Bank, 2010

BOX 2

TNCs and the Brazilian agrifood sector

Over the last two decades, the Brazilian agrifood system transitioned from a traditional to an increasingly global and industrial model. Fostered by rising incomes, urbanization, economic liberalization, and access to competitive raw materials, multinational food processors and retailers entered or increased their investments in the Brazilian market during the 1990s. Increased ... FDI by large, private agribusinesses in Brazil displaced domestic competitors, increased industry concentration, and eliminated many medium and small companies. As a result, the market share of multinational corporations in the domestic food market increased. For instance, Brazilian affiliates of multinational agrifood companies generated 137 000 jobs, almost US\$5 billion in exports, and sales of US\$17 billion in 2000. Given the total value of food industry shipments in Brazil of US\$58 billion, the aggregate market share of foreign companies reached 30 percent in 2000. Among the top ten food processors in the country, eight are multinational firms with foreign headquarters. ... Official data show that FDI inflow in the Brazilian agrifood processing industry totaled US\$8.2 billion between 2001 and 2004. The top-three food retailers in the country ... were then ... controlled by two French supermarket chains (Casino and Carrefour) and one US based company (Wal-Mart), with a combined market share of 39 percent.

Concomitant to these structural changes in the post-farm gate stages of the agrifood system, agricultural production also modernized and became increasingly capital intensive and integrated with upstream and downstream supply chain participants. Tightly coordinated agrifood supply chains have been developed by the private sector – in particular, large multinational food processors, fast-food restaurant chains and retailers – to cater to increasingly differentiated domestic and export markets. Farmers in Brazil are increasingly exposed to markets that are much more demanding in terms of food quality and safety, more concentrated and vertically coordinated, and more open to international competition. (Chaddad and Jank, 2006)

3. Lessons from Brazilian agriculture development experience

Tracing the changes in policies and factors affecting the business climate of Brazilian agriculture is a challenge that has been only partially fulfilled in the literature. This section represents an attempt to improve the knowledge base and draw some policy lessons. The first part traces the main policy measures and factors that affected the whole country over the past 40 years. The second part describes the process of agriculture development specifically for the Brazilian Savannah (*Cerrados*), where major investments have transformed it into one of the world's most important food producing regions of the world.

3.1 Business climate history for agriculture investment

Brazil has adopted over the years a wide range of agricultural and macroeconomic policies that had a direct impact on the agricultural sector, including changes to the legal framework, macroeconomic stabilization plans, and the setting up of institutions. The list is long, but the author believes that a few have been pivotal to both increase investment levels and enhance crop production. These are deregulation of the economy, the opening up of domestic markets to world markets, the provision of rural credit, investments in R&D, and minimum guaranteed prices to producers at harvest time.

Looking back over the past century, Brazil's economy was dependent to a large extent on

TABLE 2

The world's 25 largest TNC suppliers of agriculture, ranked by foreign assets, 2007

Rank	Corporation	Assets		Total	Sales		Employment
		Home economy	Foreign		Foreign	Total	Total
US\$ million and number of employees							
1	BASF AG ^a	Germany	44 633	68 897	49 520	85 310	95 175
2	Bayer AG ^a	Germany	24 573	75 634	24 746	47 674	106 200
3	Dow Chemical Company ^a	United States	23 071	48 801	35 242	53 513	45 900
4	Deere & Company	United States	13 160	37 176	7 894	23 999	52 000
5	El Du Pont De Nemours	United States	9 938	34 131	18 101	29 378	60 000
6	Syngenta AG	Switzerland	9 065	12 585	9 281	9 794	21 200
7	Yara International ASA	Norway	8 009	8 541	9 939	10 430	8 173
8	Potash Corp. of Saskatchewan	Canada	6 079	9 766	3 698	5 632	5 003
9	Kubota Corp.	Japan	5 575	12 691	4 146	9 549	23 727
10	Monsanto Company	United States	4 040	12 253	3 718	8 563	18 800
11	Agco Corporation	United States	4 034	4 699	5 654	6 828	13 720
12	The Mosaic Company	United States	3 881	9 164	3 859	5 774	7 100
13	ICL-Israel Chemicals Ltd.	Israel	2 066	4 617	2 092	4 351	
14	Provimi SA	France	1 962	2 237	2 523	2 805	8 608
15	Bucher Industries AG	Switzerland	1 648	1 850	2 058	2 172	7 261
16	Nufarm Limited	Australia	1 191	2 010	925	1 512	
17	CLAAS KGaA	Germany	1 000	2 619	2 884	3 781	8 425
18	Sapex AC	Belgium	826	826	837	837	692
19	Terra Indústries Inc	United States	735	1 888	389	2 360	871
20	Aktieselskabet Schouw & Company A/S	Denmark	695	2 016	1 350	1 598	3 541
21	Genus PLC	United Kingdom	652	851	394	469	2 124
22	Scotts Miracle-Gro Company	United States	591	2 277	470	2 872	6 120
23	Kvemeland ASA	Norway	367	487	649	741	2 717
24	Sakata Seed Corp.	Japan	331	843	140	383	1 711
25	Auriga Industries A/S	Denmark	319	849	624	856	1 615

Source: UNCTAD, 2009

A General chemical/pharmaceutical companies with significant activities in agricultural supplies, especially crop protection, seeds, plant science, animal health and pest management.

Note: Data are missing for various companies. In some companies, foreign or domestic investors or holding companies may hold a minority share of more than 10 percent. In cases where companies are present in more than one agrifood industry, they have been classified according to their main core business.

BOX 3

Monsanto Company

Monsanto Company, together with its subsidiaries, provides agricultural products for farmers in the United States and internationally. It has two segments: Seeds and Genomics, and Agricultural Productivity. The Seeds and Genomics segment produces corn, soybeans, canola and cottonseeds, as well as vegetable and fruit seeds, including tomato, pepper, eggplant, melon, cucumber, pumpkin, squash, beans, broccoli, onions and lettuce. This segment also develops biotechnology traits that assist farmers in controlling insects and weeds, as well as provide genetic material and biotechnology traits to other seed companies. The Agricultural Productivity segment offers glyphosate-based herbicides for agricultural, industrial, ornamental, and turf applications; lawn-and-garden herbicides for residential lawn-and-garden applications; and other herbicides for control of pre-emergent annual grass and small seeded broadleaf weeds in corn and other crops. The company offers its traits products under Roundup Ready, Bollgard, Bollgard II, YieldGard, YieldGard VT, Roundup Ready 2 Yield, and SmartStax; row crop seeds under DEKALB, Asgrow, Deltapine, and Vistive; vegetable seeds under Seminis and De Ruiter; herbicides under Roundup; and corn and cotton under Harness brand names. It also licenses germplasm and trait technologies to seed companies. The company sells its products through distributors, retailers, dealers, agricultural cooperatives, plant raisers, and agents, as well as directly to farmers. Monsanto Company has a joint venture with Cargill, Inc. to commercialize a proprietary grain processing technology under the name Extrax. It also has a collaboration agreement with BASF in plant biotechnology that focuses on high-yielding crops and crops that are tolerant to adverse conditions. The company was founded in 2000 and is based in St. Louis, Missouri.

Source: <http://finance.yahoo.com/q/pr?s=MON+Profile>

Monsanto arrived in Brazil in 1951 and has its headquarters located in São Paulo, the state where it installed the first factory in São José dos Campos (SP) in 1976. In Brazil, Monsanto produces herbicides and seeds of corn, soybeans, cotton and vegetables, and varieties of cane sugar.

Source: <http://www.monsanto.com.br/institucional/monsanto-no-brasil/monsanto-no-brasil.asp>

exports of a handful of agricultural products, mostly coffee and sugar. Attempts were made to industrialize the country, for example through import substitution policies introduced in the 1930's, but with limited impact (Abreu and Bevilacqua, 2000). Between 1960 and 1972, various policies adverse to the agricultural sector were applied, such as the overvaluation of the currency, high tariffs for imported industrial products, quantitative restrictions for agriculture exports, discrimination against raw commodities export and preference for industrialized valueadded agricultural products, and policies that sought to make domestic food prices affordable to the growing urban centres.

The Government of Brazil tried to compensate the adverse consequences of these policies with the creation in mid-1960 of a highly subsidized rural credit system. Credit was offered for working capital, investments (machinery, cattle, etc.) and marketing (discounting promissory notes and transport). Some analysts estimate that subsidized credit was directly responsible for a 66 percent increase in agriculture production during the 1970s (Lucena and Souza, NA). This very same decade saw the birth of the Brazilian Agriculture Research Enterprise (EMBRAPA), an R&D institution that has become key for the generation of agricultural technology.

BOX 4

Louis Dreyfus Commodities Brazil

The Louis Dreyfus Commodities Brazil (LDCommodities) is a subsidiary of Louis Dreyfus Commodities, which has more than 160 years the world market for agricultural commodities and has offices strategically distributed in over 50 countries.

In Brazil since the 1940s, the company operates in the production, processing, storage, transportation and marketing of commodities, making its presence felt in the markets for soybeans, rice, corn, cotton, coffee, sugar and ethanol, citrus fruits, and fertilizers.

Listed among the top 10 export companies in Brazil, the LDCommodities is present in the main producing regions of the country, with units in the South, Southeast, Northeast and Midwest. The company is headquartered in Sao Paulo and operates four oil processing plants, three of orange juice, five port terminals, two river port terminals, thirteen sugar mills and ethanol (LDC-SEV) and over 30 grain warehouses, and manage more than 340 000 hectares of land.

With revenues of approximately US\$3.4 billion in Brazil (Dec/2009), the LDCommodities generates about 20 000 jobs, reaching 30 000 in harvest times. Besides providing an important contribution to the economy, the company maintains its ongoing effort to support farmers in close relationship with partners and community and commitment to the environment. The LDC-SEV is the second largest company in the world in the processing of sugar cane and production of renewable energy. It was created in October 2009 from the association between the LDC Bioenergy (ethanol and sugar operations of Louis Dreyfus Commodities) and the Brazilian company Santelisa. With 13 branches located in major producing regions of Brazil, the LDC-SEV has a processing capacity of 40 million tons of cane sugar per year and generates about 20 000 direct jobs.

KEY FIGURES:

Offices in Brazil: Regional head office in São Paulo and many others spread around the country; 7 processing plants; 7 ports and river terminals; Around 30 000 hectares of orange plantations; N°1 cotton merchandiser in Brazil.

Processing assets: 4 oilseed crushing plants in Brazil, processing soybeans and cotton into edible oil; meal and lecithin: Ponta Grossa, Paraguaçu Paulista, Jataí and Alto Araguaia; 3 industrial orange processing plants with a combined capacity of more than 60 million boxes per year: Bebedouro, Matão and Engenheiro Coelho.

Logistics assets: Ports and river terminals: Santos (São Paulo state), with three deep draft exporting terminals; Paranaguá (Paraná state), with one deep draft exporting terminal; São Simão (Goiás state) with one river barge terminal; Pederneiras (São Paulo state), with one river barge terminal; Transshipments, conducting logistics operations around seven major export-capable ports along the Brazilian coast; Significant storage capacities for oilseeds (more than 30 warehouses), citrus, cotton and coffee.

Source: <http://www.ldcommodities.com>

BOX 5

International Paper Company

International Paper Company operates as a paper and packaging company with operations in North America, Europe, Latin America, Russia, Asia and North Africa. Its Industrial Packaging segment manufactures containerboards. Its products include linerboard, medium, whitetop, recycled linerboard, recycled medium and saturating kraft. The company's Printing Papers segment produces uncoated freesheet printing papers, including uncoated papers, market pulp, coated papers and uncoated bristols. Its Consumer Packaging segment offers coated paperboard for various packaging and commercial printing end uses. The company's Distribution segment distributes products and services to various customer markets, supplying printing papers and graphic pre-press, printing presses, and post-press equipment for commercial printers; facility supplies for building services and away-from-home markets; and packaging supplies and equipment for manufacturers, as well as offers warehousing and delivery services. Its Forest Products segment owns and manages approximately 200 000 acres of forestlands and development properties primarily in the United States. The company was founded in 1898 and is based in Memphis, Tennessee.

Source: <http://finance.yahoo.com/q/pr?s=IP+Profile> accessed on August 21th, 2010

In Brazil International Paper's production system is comprised of two pulp and paper mills in Mogi Guaçu and Luiz Antônio, and a paper mill in Três Lagoas. Together, the three mills produce paper for Brazil and export markets, in addition to products on the Chambril line for conversion and printing. The mill located in Mogi Guaçu, in São Paulo, is the first mill of IP within Brazil and has a production capacity of 440 tonnes of paper per year. Incorporated into the business portfolio of IP in 2007, the Luiz Antônio mill located near Ribeirão Preto, in São Paulo, is capable of producing annually 360 thousand tonnes of paper. In operation since 2009, the Três Lagoas mill in Mato Grosso do Sul state has automated finishing lines, capable of producing up to 140 reams of Chamex paper a minute, non-coated paper production capacity – 200 000 tons a year, and operates some of the most advanced technology on the market. It has had US\$300 million invested in it. The newest enterprise of IP in Brazil is the first factory to be built by International Paper out of the United States.

International Paper owns 72 000 hectares of renewable eucalyptus forests used in pulp and paper production. It also has 24 000 hectares of preserved areas, to conserve the original characteristics of the native vegetation. These areas are distributed amongst Mogi Guaçu, Brotas and Luiz Antônio, municipalities in São Paulo State. The necessary care required to guarantee productivity in renewable forests includes research, studies and analysis to improve the eucalyptus species to develop new technologies. The company produces about 16 million cuttings a year which are used in eucalyptus planting. Fire prevention and eco-efficiency in forestry management are also constantly invested in by the company. IP has a Research Centre with laboratories and researchers in different areas, working together and developing more sustainable techniques and processes.

Contract forestry and Partnering: In addition to its own forests, International Paper gets raw material through fostering forests and partnering. In contract forestry, there are about 9 500 hectares in São Paulo and Minas Gerais States. The company supplies cuttings, technical assistance, forestry inventory, soil analysis, a map of the plantation, and recommends fertilizer to local producers. Later, the wood is sold to the company at market prices. So far, 122.7 million cuttings have been donated, grown, on 12 500 hectares of plantation. In its partnering, International paper takes responsibility for expenses in the implantation and maintenance of renewable forests. Later, these amounts are converted into wood for the company.

Source: <http://www.internationalpaper.com/BRAZIL/EN/index.html> accessed on 20 October 2010

A price boom for agricultural commodities during 1972-1974 triggered the renewal of discriminatory policies against agriculture. Export embargos and price controls were applied, and the unfavourable business climate created by these policies resulted in a decade-long period of substantial reductions of agricultural production and exports (Abreu, 2004) (Lopes, Lopes and Barcelos, 2007). Rural credit, which in principle was to be subsidized, became less attractive. A growing fiscal deficit, foreign debt problems, the 1979 second petroleum crisis, and rampant inflation, eroded the subsidies built into the rural credit system. Credit rates were progressively less favourable to investors and eventually become positive real interest rates in 1984-1985.

An increase in price volatility was perceived contemporary to the erosion of agricultural credit subsidies. The Government of Brazil responded to this uncertainty by reviving price floors at harvest time. Producers could sell their production directly to the government or they could finance short-term storage costs to postpone sale of their outputs to a between-harvest-period when prices were expected to rise and increase revenues. This policy worked reasonably well and increased production, until hyperinflation set in during the 1980s (Lucena and Souza, NA) (Silva Dias and Amaral, 2001).

The late 1980s become a turning point for the Brazilian economy, as policies that had previously led to low agriculture domestic prices and low levels of investment in agriculture started to change. A substantial reduction of support for import substitution, trade liberalization and flexible foreign exchange rates in the mid-1990s improved agriculture prices and the profitability of the sector (Abreu, 2004) (Lopes, Lopes and Barcelos 2007). The Brazilian experience illustrates how allowing international prices to be transmitted to the domestic market (provided trade is fair without dumping or subsidies to foreign producers) injects dynamism to the agricultural sector.

In addition to liberalization, the Government of Brazil promoted the development of a strong agricultural and rural credit programme that targeted small and medium farmers, the National Family Farming Programme (PRONAF).

It implemented, as part of the First and Second National Development Plans (PND), an infrastructure investment programme that built a large network of roads to allow transportation of agricultural production from distant frontier areas in the savannahs. This programme also installed power lines, communications facilities, input distributors and producers of machinery including tractors. A comprehensive agricultural and rural extension service, the National System for Rural Extension and Technical Assistance that was initially created in 1954 for the state of Minas Gerais, was expanded during the 1970s to all states. The service was implemented by the Brazilian Enterprise of Technical Assistance and Rural Extension (EMBRATER). In addition, a large network of storage facilities ruled by the Brazilian Storage Company (CIBRAZEM) was also established to buy, store and distribute agricultural production in the major producing areas of the country. Last but not least, the Government of Brazil created the successful EMBRAPA, the Brazilian Agricultural Research Corporation, whose research on agricultural technology would start showing key results a few years later.

EMBRAPA is a public company linked to the Ministry of Agriculture, Livestock and Food Supply, with legal characteristics similar to a private company. The enterprise coordinates the National Agricultural Research System created in 1992, which includes most public and private entities involved in agricultural research in the country. Today EMBRAPA is present in almost all Brazilian states, networking through 38 research centres, 3 service centres and 13 central divisions. In 2008 it had 8 275 employees, including 2 113 researchers, 25 percent with masters' degrees and 74 percent with doctoral degrees. At the end of the 2010, the workforce at EMBRAPA was 9 248 employees, and it received the highest operating income in history, more than US\$1.15 billion. EMBRAPA estimates that in 2010 the rate of return on R&D was 39 percent (EMBRAPA 2008 and 2010).

EMBRAPA has generated and recommended more than 9 000 technologies for Brazilian agriculture, reduced production costs and helped Brazil to increase the offer of food while, at

the same time, conserving natural resources and the environment and diminishing external dependence on technologies, basic products and genetic materials. It has been a key contributor to the transformation of the Brazil's *Cerrados* (savannahs) area into one of the most agricultural productive regions in the world.

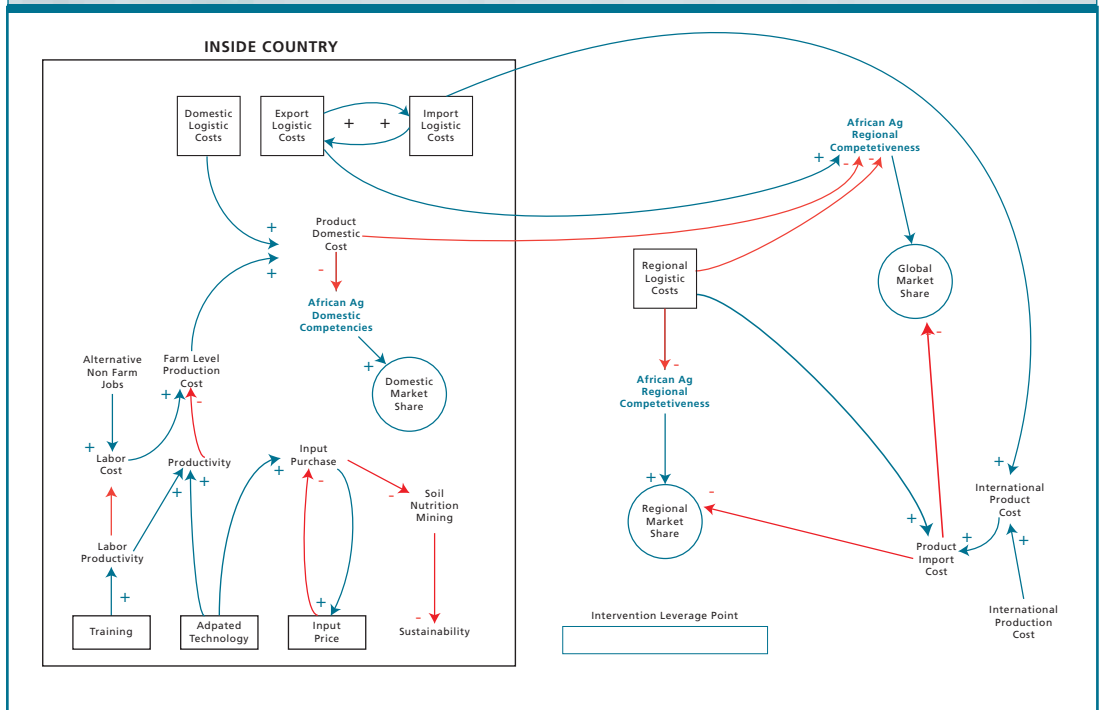
3.2 Agricultural development of the Brazilian Savannah

Several studies have been undertaken in recent years to describe the process of agriculturebased development of the Brazilian Savannahs, a region that from a historical point of view was unimportant to agricultural production. Two of the studies were selected by the author and are included in this section. The first study developed a model (Chart 1) that identified factors that affected domestic production costs,

as well as the impacts of domestic, export, and import logistic costs on the competitiveness of agriculture products. The book clearly established the importance of the adaptation and adoption of highly productive technologies. It also stressed the importance of training to improve labour productivity. The authors demonstrate how the costs of logistics impact on the competitiveness of agricultural products, and the large shares that they accrue at all levels from the domestic, regional, to global stages of the market chain. The authors conclude that key areas of intervention include the adoption of technology, training, and a reduction of the cost of logistics.

The second study by Tollini (ND) concentrates on explaining the factors that resulted in the impressive growth of agriculture production in the Savannah region of Brazil. His explanation, summarized in Chart 2, helps to identify key issues and intervention strategies that were

CHART 1
Factors affecting agriculture competitiveness in developing countries



Source: J.R. Nascimento, 2009

instrumental to the transformation of the region. His analysis classified them in two groups: those that affected the supply of agricultural products, and those that affected their demand. He described the real and potential impact of the growing demand for these products on price formation and inflation pressures.

His study concludes that in addition to a growing demand for exports, pulled by the opening of the economy to world markets and flexible exchange rates, agriculture prices in Brazil were being pressured upwards by a growing domestic demand resulting from population and income growth, especially in urban areas. Income growth in urban areas contributed to the increase in demand as poorer members of society became more able to buy more and higher quality food items. Sustained demand pressures generated incentives for farmers to invest in agricultural production growth, while the government understood that the control of inflationary pressures from agriculture products could be addressed by greater growth in the supply of those products. Such an increase in production generated jobs, income, foreign exchange, reduced poverty, in addition to substantial positive externalities.

The heart of the strategy was to improve profits of agricultural investments, so that the growth in supply of agricultural products could be sustained. Government interventions were mainly designed to reduce costs and risks, so that producers and investors need not rely on high prices to make their businesses profitable. Although not explicitly discussed by Tollini, it is clear that the authorities understood the critical role of the private sector.

Tollini highlights the following interventions³:

- Investments to improve infrastructure in the areas of transportation, energy, and communications;

- Measures to improve land markets;
- The mobilization of public and private banks in the financing of agriculture production;
- Increased and sustained investments in research and development to overcome the limitations of the *Cerrados* soils and increase productivity;
- Creation of business opportunities for service providers to help in the several operations directly or indirectly associated with agriculture production;
- Mobilization of southern agriculture producers (*gauchos*⁴) to bring to the *Cerrado* their skills, knowledge, entrepreneurship, and capital; and
- Measures to support the training and education of rural labour and professionals.

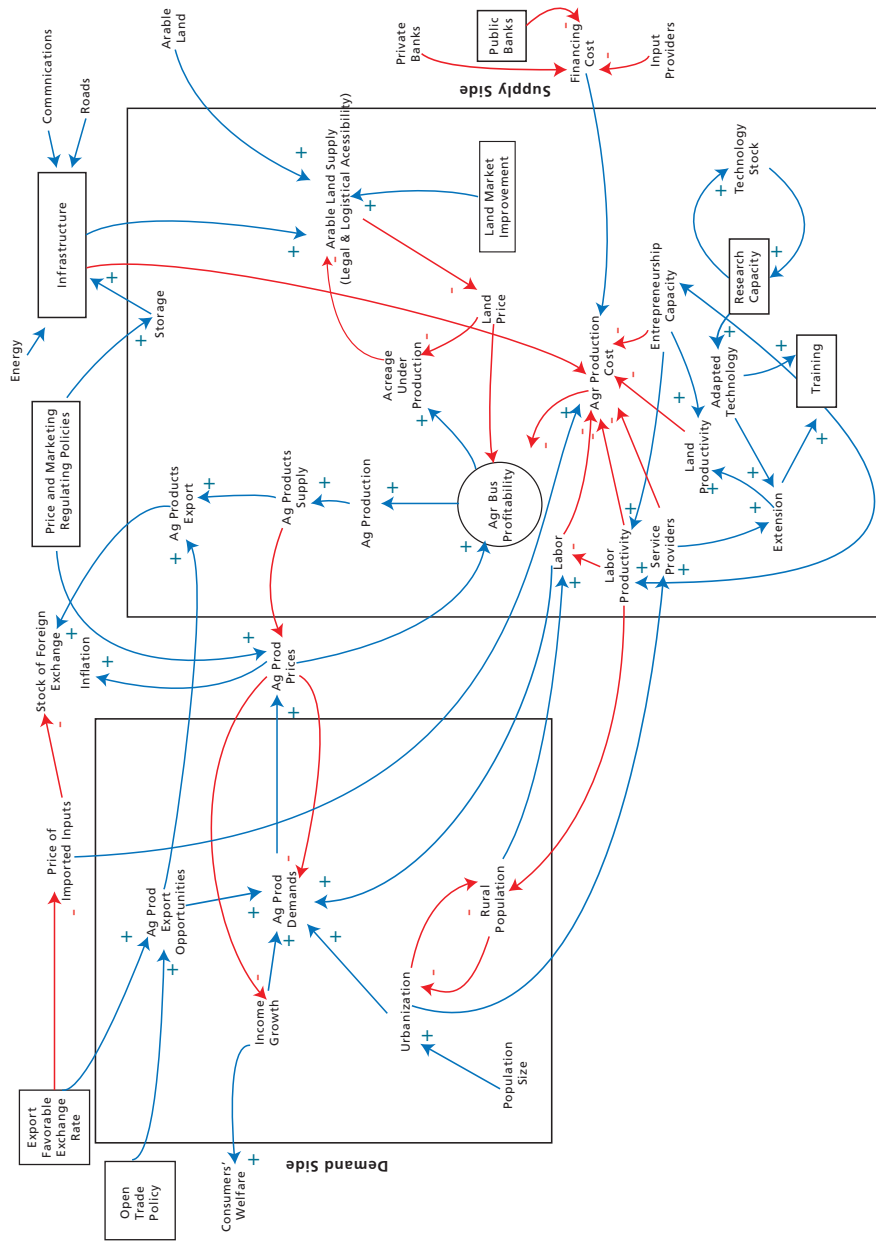
Tollini recalls that “a point to note is that Brazil received support of bilateral and multilateral agencies in its effort to promote institutional development. For instance, EMBRAPA has benefited from projects financed in part by the World Bank and by the Inter-American Development Bank. The Inter-American Institute for Cooperation on Agriculture, IICA, also assisted EMBRAPA during its first years with the allocation of some professionals to help with the installation and initial research planning and programming. EMBRAPA was recognized as a good administrator of resources received through these projects, and has been able to benefit from several sequential projects, each adding new objectives as the research programme develops.”

It should be noted that numerous business climate measures were introduced at stages and in sequencings that were contingent on context. While the results of these interventions were not always immediate or successful, the policy consistency applied for more than four decades eventually bore fruit. The process was initially slow but gained momentum, and today the Brazilian Savannah is one of the most influential food producing regions of the world.

³ The supply box in Chart 2 - Factors that contributed to the agriculture-based development of the Brazilian Savannah includes variables and factors normally associated with the rural or agriculture branches of government responsibility at the time. Several other extra sectorial policy instruments were also used by the government in a mostly coordinated effort.

⁴ *Gauchos* are the decedents of early Europeans who migrated to Southern Brazil at the end of 1800s and early 1900s. They have been key for the development of the Brazilian *Cerrados*.

CHART 2
Factors that contributed to the agriculture-based development of the Brazilian Savannah



Source: J.R. Nascimento, 2009

4. The business climate for FDI in Brazilian agriculture

Entrepreneurs operate within an environment that determines to a large extent the conditions for profit. Individual firms cannot usually control external factors such as the rules of the game (laws, regulations, tax burden, and their enforcement), input and output markets, or others that directly affect their costs, revenues, and profits. Commercial success depends on the business climate that a given country can offer to investors (OECD, 2003).

This section is divided into two parts. The first relates the performance of the Brazilian business climate as perceived by various organizations. The second part introduces a model that tries to identify the factors and relationships affecting the success of agricultural businesses in Brazil. The model presents a framework that may help governments to develop strategies for improving the business climate of their respective countries and considers forestry as an example.

4.1 The enabling environment for FDI in Brazil

Table 3 shows various indices that, taken together, illustrate a general perception of how the enabling environment for FDI in Brazil performs and ranks relative to other countries. It should be emphasized are not entirely independent from each other because they sometimes use similar variables. Nevertheless, these show that Brazil has relatively low scores, and often ranks half way through their tables. The table is useful not only in suggesting to investors the challenges they may need to face in Brazil, but also in highlighting areas where measures could be applied to further the business climate of the country.

4.2 A business climate model for investment in agriculture

The model presented here has been developed to better understand the conditions that prevail for investors seeking to invest in agriculture

and forest-based sustainable businesses. It assumes that the more attractive a country is for agriculture and forest-based sustainable business investments, the more profitable investments are likely to be. The profitability of these businesses depends on the costs investors have to face and the expected benefits from their operations. As background, readers are invited to explore Box 6 which includes a checklist prepared by OECD for attracting FDI in an economy in general.

The model (Chart 3) proposes that the costs investors face, and the expected benefits from their operations, are affected by three groups of factors: supra-sectorial, inter-sectorial, and intra-sectorial. The supra- and the inter-sectorial factors are also called extra-sectorial conditions, as they not part of the agriculture or forestbased sector.

Supra-sectorial factors

Supra-sectorial factors influence the performance of firms in all the sectors of the economy, and include macroeconomic conditions and political risks. The supra-sectorial group consists of: (i) Gross Domestic Product growth; (ii) exchange rate stability; (iii) interest rates; (iv) tax burdens; (v) free trade; and (vi) political risks.

Two hypotheses exist that relate these factors with each other and demonstrate how they affect the profitability of agriculture or forest-based businesses. Thus, the model states that profitability is expected to increase with faster GDP growth, with an exchange rate that is more stable; and/or as the economy opens up (positive arrows). Equally so, profitability of agriculture or forest-based businesses is expected to increase as interest rates get smaller, the tax burden is less expensive; and/or the political risks diminish (negative arrows).

Inter-sectorial factors

Inter-sectorial factors are those managed by other sectors of the economy but which have substantial impacts on the cost and benefit structures of agriculture or forest-based businesses. The model identifies eight: (i) economic infrastructure; (ii) social infrastructure; (iii) credit accessibility; (iv) licences and permits; (v) environmental restrictions; (vi) capital treatment; (vii) labour; and (viii) rule of law (see Table 4).

TABLE 3
Performance of Brazil for selected indices

Index name	Brazil's score and rank	Brief description
Ease of Doing Business Ranking	Rank: 127 out of 183	<p>The <i>Ease of Doing Business Ranking</i> is reported yearly by The World Bank, a financial assistant to developing countries. The Doing Business Ranking provides measures of business regulations and their enforcement across countries by measuring specific regulatory obstacles to doing business, such as protection of investors, protection of property rights, employment issues, and contract enforcement capabilities. The highest ranked country has the most favourable environment for conducting business in the world.</p> <p>Data collected in 2010. Source: The World Bank. http://www.doingbusiness.org/data/exploreeconomies/brazil</p>
Global Competitiveness Report	Score: 4.23 out of 7 Rank: 56 out of 133	<p>The <i>Global Competitiveness Report</i> is compiled yearly by the World Economic Forum, an independent international organization based in Geneva, Switzerland. The rankings provide a description of the economic competitiveness based on twelve pillars of competitiveness for countries at all stages of development. Some of the factors included come from publicly available data, but the majority comes from a survey the World Economic Forum sends to over 11 000 business executives world-wide. The highest ranked countries are the most competitive.</p> <p>Data collected in 2009. Source: http://www.weforum.org/pdf/GCR09/GCR20092010fullreport.pdf</p>
Human Development Index	Score: 0.699 out of 1. Rank: 73 out of 182.	<p>The <i>Human Development Index (HDI)</i> which looks beyond GDP to a broader definition of well-being. The HDI provides a composite measure of three dimensions of human development: living a long and healthy life (measured by life expectancy), being educated (measured by adult literacy and enrolment at the primary, secondary and tertiary level) and having a decent standard of living (measured by purchasing power parity, PPP, income). The index is not in any sense a comprehensive measure of human development. It does not, for example, include important indicators such as gender or income inequality and more difficult to measure indicators like respect for human rights and political freedoms. What it does provide is a broadened prism for viewing human progress and the complex relationship between income and wellbeing.</p> <p>Data: 2010. Source: UNDP. http://hdrstats.undp.org/en/countries/profiles/BRA.html</p>
Index of Economic Freedom	Score: 55.6 out of 100. Rank: 113 out of 179.	<p><i>The Index of Economic Freedom</i> is reported annually by the Heritage Foundation, a research and educational institute. The Index of Economic Freedom analyses a wide range of issues including trade barriers, corruption, government expenditures, property rights, and tax rates to generate an overall ranking of economic freedom. The highest ranked country is the country with the least number of restrictions and constraints on businesses.</p> <p>Data collected in 2010. Source: http://www.heritage.org/Index/Ranking.aspx</p>
Economic Freedom of the World	Score: 6.0 out of 10.0. Rank: 111 out of 141	<p>The index published in <i>Economic Freedom of the World</i> measures the degree to which the policies and institutions of countries are supportive of economic freedom. The cornerstones of economic freedom are personal choice, voluntary exchange, freedom to compete, and security of privately owned property. Forty-two variables are used to construct a summary index and to measure the degree of economic freedom in five broad areas: (i) size of government; (ii) legal structure and security of property rights; (iii) access to sound money; (iv) freedom to trade internationally; and (v) regulation of credit, labour and business. Data collected in 2007</p> <p>Source: Fraser Institute. http://www.fraserinstitute.org/research-news/research/display.aspx?id=13006</p>
Corruptions Perception Index (CPI)	Score: 3.7 out of 10. Rank: 69 out of 178 countries studied.	<p>The <i>Corruptions Perception Index (CPI)</i> is reported annually by Transparency International, an international civil society organization. The CPI ranks countries in terms of the degree to which corruption exists in the misuse of public power for private benefit among public officials and politicians. CPI is a composite index determined by expert assessments and opinion surveys. The highest ranked country is the country with the least amount of perceived corruption. Index units, 10=least corrupt, 0=most corrupt.</p> <p>Data collected in 2010. Source: http://www.transparency.org/policy_research/surveys_indices/cpi/2010/results</p>

TABLE 4
Brief description of the inter-sectorial factors

Factors	Brief description
1. Economic infrastructure	Includes availability of economic infrastructure services at competitive prices and quality such as those provided by roads, communications, energy, ports, railroads, airports.
2. Social infrastructure	Includes availability of social infrastructure services at competitive prices and quality related to human development such as education; health; water, sewage and waste disposal.
3. Credit accessibility	Includes the sophistication of financial and capital markets, availability of credit at competitive terms as well as other capital markets instruments.
4. Licences and permits	Includes bureaucratic procedures and legal requirements to open, operate, and even close firms and that take much time, efforts and other resources to comply with.
5. Environmental restrictions	Unfounded or useless environmental restrictions that increase firms' costs without generating environmental benefits.
6. Capital treatment	Includes barriers and restrictions to the movement of capital into, out of, or within the country.
7. Labour	Includes the costs generated by labour legislation, the level of general productivity and the availability of skilled workers at competitive prices.
8. Rule of law	The existence of favourable legislation, enforcement, and justice services. Includes clear definition and protection of property legislation; respect to the letter of contracts, and timely justice at reasonable cost.

Source: Adapted from Nascimento and Tomaselli, 2007

As in Supra-Sectorial Factors, a positive arrow indicate that factors that positively affect profits, including economic infrastructure, social infrastructure, credit accessibility, favourable capital treatment; competitively priced and productive labour; and rule of law effectiveness increases (decreases). Negative arrows indicate factors that improve profitability with lower incidence.

Intra-sectorial factors

Intra-sectorial factors are those managed by public or private actors within the agriculture or forest-based sector of the economy. These factors are, by definition, under the control of stakeholders in the sector. The model identifies five: (i) agriculture or forest products domestic market; (ii) agriculture and forest productivity; (iii) availability of agriculture and forest vocation lands; (iv) favourable supports; and (v) adverse actions (see Table 5).

Except for Adverse Actions, all intra-sectorial factors shift profitability in the same direction. For example, the bigger the market for agriculture and forest products, including those used as input for export products or directly sold overseas, the more potential exists for profitable agriculture and forest businesses (trade integration or free trade

agreements may be effective policies). Productivity growth is also a critical factor. Productivity depends *inter alia* on the availability and adoption of appropriate technology; production inputs such as seeds, fertilizers, machinery; skilled labour and professionals; and supporting services. Research, technical assistance, adaptation of technologies, and other innovations are vital to increase productivity. The availability of agricultural and forest vocation lands (FVL)⁵ are also factors that affect the attractiveness of a country. The greater the land area a country has that can potentially be used for agriculture or forest production, the greater the contribution of this factor to the intra-sectorial conditions that favour successful agriculture or forest businesses. While the existence of FVL is a positive sign, these lands

⁵ Forest Vocation Lands are those that, due to their physical site features such as soil, topography, and the rainfall they receive, should be kept under forest cover or other sustainable land use if soil or water related negative externalities are to be avoided. FVL classification does not depend on the type of cover the land actually has, nor does it depend on the requirements it may have for agriculture, crop or forest production. Therefore, lands with no forest cover or use can still be classified as FVL if their physical features so indicate; while lands covered with forest may not be FVL. (J.R. Nascimento, 2005).

BOX 6

Checklist for Foreign Direct Investment Incentive Policies

Policies for attracting FDI should provide investors with an environment in which they can conduct their business profitably and without incurring unnecessary risk. Experience shows that some of the most important factors considered by investors as they decide on investment location are:

- A predictable and non-discriminatory regulatory environment and an absence of undue administrative impediments to business more generally.
- A stable macroeconomic environment, including access to engaging in international trade.
- Sufficient and accessible resources, including the presence of relevant infrastructure and human capital.

The conditions sought by foreign enterprises are largely equivalent to those that constitute a healthy business environment more generally. However, internationally mobile investors may be more rapidly responsive to changes in business conditions. The most effective action by host country authorities to meet investors' expectations is:

- Safeguarding public sector transparency, including an impartial system of courts and law enforcement.
- Ensuring that rules and their implementation rest on the principle of nondiscrimination between foreign and domestic enterprises and are in accordance with international law.
- Providing the right of free transfers related to an investment and protecting against arbitrary expropriation.
- Putting in place adequate frameworks for a healthy competitive environment in the domestic business sector.
- Removing obstacles to international trade.
- Redress those aspects of the tax system that constitute barriers to FDI.
- Ensuring that public spending is adequate and relevant.

Tax incentives, financial subsidies and regulatory exemptions directed at attracting foreign investors are no substitute for pursuing the appropriate general policy measures (and focusing on the broader objective of encouraging investment regardless of source). In some circumstances, incentives may serve either as a supplement to an already attractive enabling environment for investment or as a compensation for proven market imperfections that cannot be otherwise addressed. However, authorities engaging in incentive-based strategies face the important task of assessing these measures' relevance, appropriateness and economic benefits against their budgetary and other costs, including long-term impacts on domestic allocative efficiency. (OECD, 2003)

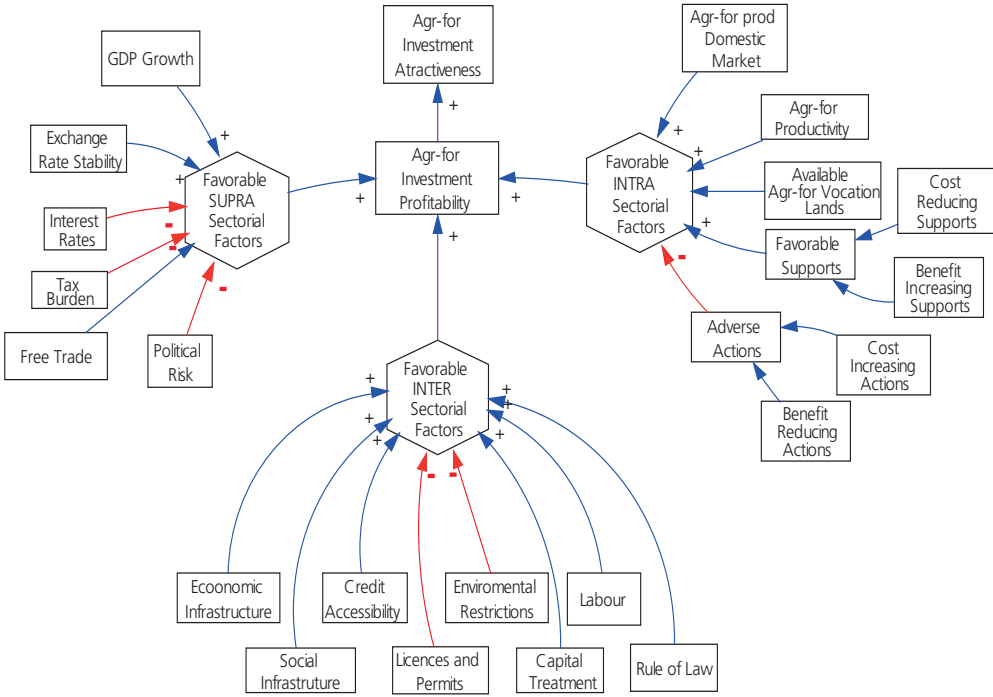
have to be accessible to investors through secure and flexible mechanisms that allow for long-term investments.

Forestry as an example

Based on the above definitions, and using forestry as an example, the following identifies

factors that influence the businesses environment of forestry, and how they impact investment profitability. The methodology is called Forest Investment Attractiveness Index (IAIF, from the Spanish acronym) and computes an index that measures the business climate for forest-based investments. The IAIF's purpose is to flag the

CHART 3
Factors influencing the attractiveness of FDI in agriculture and forest business



Modified from Nascimento and Tomaselli, 2007

TABLE 5
Brief description of the intra-sectorial factors

Factors	Brief description
1. Agriculture or forest products domestic market	Includes the size of the domestic consumption of inputs and outputs of the agriculture and forest based sector. It also includes the domestic consumption associated with the export of outputs from the sector.
2. Agriculture and forest productivity	Includes the land productivity of agriculture or forest based businesses. It is directly associated with the technologies used for production in the country.
3. Availability of agriculture and forest vocation lands	Includes the size of lands in the country that are arable, or are forest vocation lands. Agriculture production is often, but not always, more competitive in arable lands than forest production, while the opposite is true for forest vocation lands. (J.R. Nascimento, 2005).
4. Favourable supports	Includes policies and measures taken the public or private sectors that reduce costs or increase benefits for investors.
5. Adverse actions	Includes policies and measures taken the public or private sectors that increase costs or decreases benefits for investors.

Source: Adapted from Nascimento and Tomaselli, 2007

factors that affect, lead to success, and attract private direct investment, be it domestic or foreign. The IAIF allows: (i) to compare the performance of countries in the same year and the trend over time, (ii) to assist investors to pre-identify the countries where sustainable forest business will most likely be successful, and (iii) to clarify which Supra, Inter and Intra factors affect the business climate. The IAIF methodology considers 80 variables that make up a total of 20 indicators. It has been applied to countries seeking support from the Inter-American Development Bank using data from 2004 to 2006. Table 6 shows the detailed IAIF results for Brazil for indicators and sub-indices in 2006.

Brazil, according to this index, is the most attractive country for investment in forest-based businesses in Latin America and the Caribbean. However, it scores only 60 out of a total of 100 points possible, implying that the country has room for improvement. By comparing the performance of each index with the theoretical possible score as shown in the last column of the Table 6, analysts can easily identify the indicators with the greatest potential for improvement. For instance, the IAIF indicates that inter-sectorial factors such as Labour, Licences and Permits, Property Rights, and Capital and Foreign Investment Flow can more than double their performance, while Intra Sectorial factors such

TABLE 6
Brazil's performance according to the Forest Investment Attractiveness Index (2006)

Indicators / Subindex / IAIF	Rating in 2006	Max. rating possible	Potential growth in %
GDP Growth Rate	75	100	34
Passive Real Interest Rate	97	100	3
Exchange Rate Stability	100	100	0
Trade Openness	58	100	72
Political Risk	67	100	50
Tax Share of GDP	53	100	90
Supra-Sectorial Subindex	75	100	34
Economic infrastructure	62	100	61
Social Infrastructure	79	100	26
Licences and Permits	50	100	100
Labour	39	100	156
Capital Market	55	100	82
Property Rights	50	100	100
Capital and Foreign Investment Flow	50	100	100
Agricultural Policies	57	100	76
Planting and Harvesting Restrictions	52	100	91
Inter-Sectorial Subindex	55	100	82
Forest Resources	40	95	138
Favourable Support	37	100	168
Domestic Market	95	100	5
FVL	80	100	25
Adverse Actions	42	100	137
Intra-Sectorial Subindex	59	99	68
IAIF	60	99	65

Source: Annex 9

as Favourable Support, Forest Resources and Adverse Actions can be almost three times better.

It is beyond the scope of this study to calculate the most recent score Brazil can obtain in the corresponding indicators for agriculture-related investment attractiveness. Such calculation should be undertaken periodically for the design, monitoring and evaluation of interventions. In addition, a simultaneous calculation of these indices for various countries can allow for comparison, help investors to identify those countries that are better suited for establishing their businesses, and ultimately foster an environment of healthy competition among countries.

5. Business climate improvement process to attract FDI into the agriculture sector

Through IAIF, Brazil has learned how it benchmarks relative to other countries, and understands how various factors foster or deter from business ventures. The analysis showed that Brazil, with its abundant natural resources, has room to further its enabling environment. With this information at hand, the challenge for the Government of Brazil is how to improve the investment climate, and thus increase the inflow of FDI. The object of this section is to present a methodology for this purpose that was prepared by the Inter-American Development Bank, called the Forestry Investment Business Climate Improvement Process (PROMECIF). PROMECIF uses the results of IAIF, both its indicators and sub-indices at all stages of the process, either as elements of analysis, intervention design, simulations, or as indicators for monitoring and ex-post evaluation. Although IAIF and PROMECIF are designed for the specific purpose of forest-based investments, they may also be used in other sectors of the economy.

The methodology seeks to help countries improve their business climate through the implementation of a process that is both systematic and cyclical. First, the country confirms its intent on taking steps to make necessary adjustments, carries out a diagnosis

of the situation, defines the strategy, and then it designs, implements, monitors and evaluates an Action Plan.

5.1 Overall process

PROMECIF is a cyclical process that seeks to identify, develop, implement, monitor and evaluate actions that pertain to factors that affect the attractiveness of a country for foreign investors. The process is divided into three interdependent phases (Chart 4). Since the purpose of this section is to explain how this process can be useful to understand Brazil's situation, the following deals mostly with Phase II.

Phase I – Country identification and change commitment

Phase I consists of three stages: (i) promotion, (ii) identification, and (iii) setting up of the Coordinating Committee. In the promotion stage IAIF results are presented to stakeholders. The results show the country's performance in absolute terms or relative to other countries or subregions, and signals the critical factors that affect the investment climate for sustainable forestry businesses. It is at this stage, and motivated by those involved in the private sector, that the government may be persuaded to apply the PROMECIF methodology, which is formalized by the signing of a commitment (identification phase). This stage is completed with the constitution of a Coordinating Committee (CC) that organizes the implementation of phases II and III of PROMECIF. The CC should allow for stakeholder participation, and should be located, whenever possible, within the scope of national institutions promoting competitiveness.

Phase II – Diagnostic and strategy definition

The outcome of phase II is the definition of a strategy to improve the business climate for forest-based business investments, and the process includes a Diagnostic stage and an Action Plan.

CHART 4
PROMECEF phases cycle

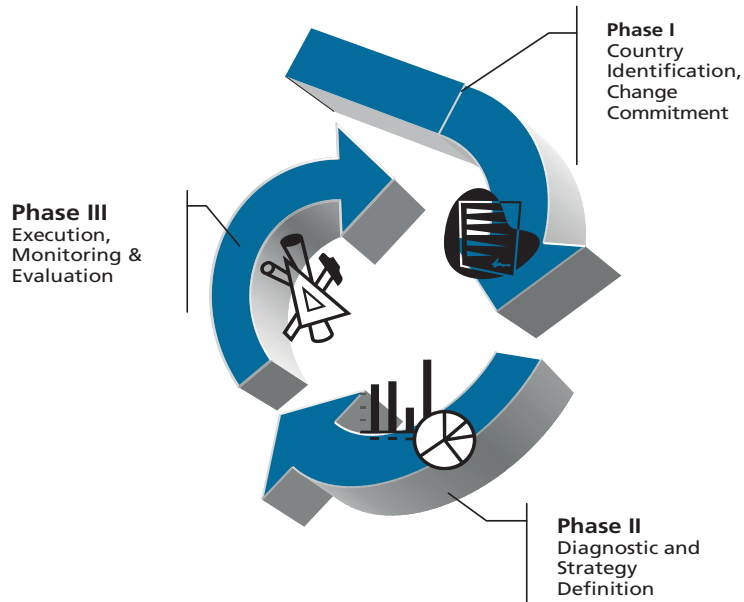
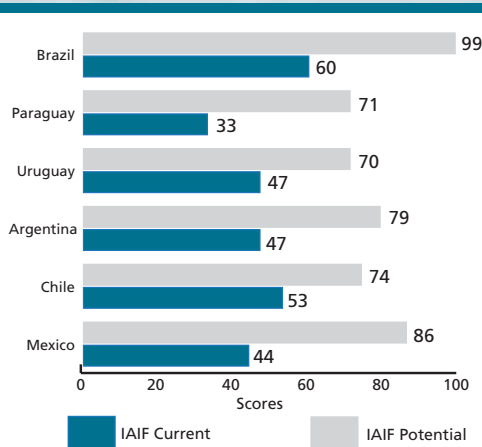
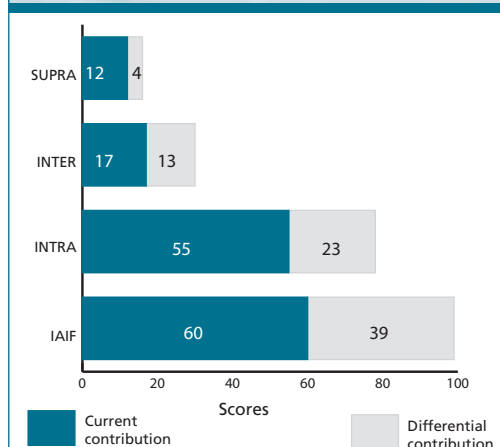


FIGURE 5
**Comparison between IAIF of Brazil and
selected countries**



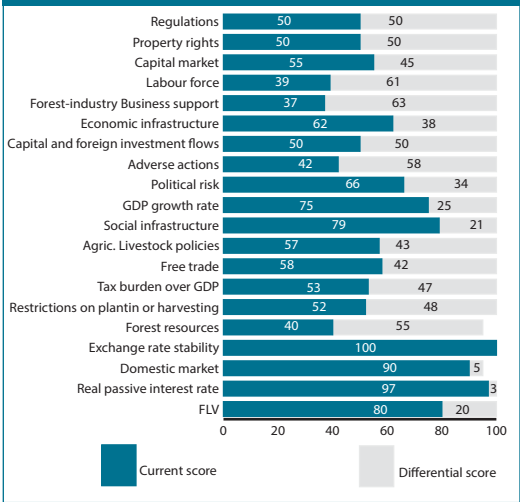
Source: IAIF 2006

FIGURE 6
**Subindexes contributions to Brazil's IAIF 2008
score**



Source: IAIF 2006

FIGURE 7
Current and differential scores of IAIF 2008 indicators - Brazil



Source: IAIF 2006

FIGURE 8
Current and differential contributions for IAIF 2008 indicators - Brazil



Source: IAIF 2006

The Diagnostic

The diagnostic aims to characterize current trends, and the situation of the sector today and in the future as envisaged by stakeholders. It uses IAIF and its indicators and models to analyze the causes and effects that generate, and are generated by, each factor. Systems dynamics methodology is suggested for the identification and inspection of factor interactions. As already mentioned, IAIF shows indicators for the country and how the country ranks relative to others. Due to its simplicity, clarity, accuracy, measurability and validity, IAIF lends itself to countless forms of analyses, and to an understanding of the situation from different angles. However, IAIF is less useful for defining the processes to identify the desired future situation.

The Analysis

The Analysis starts with the results of IAIF for the country in question. IAIF can identify convergences between countries or highlight contrasts. The country may be compared to others with similar IAIF performance, with the top best ranked, with countries that have similar GDPs or which are geographically closed. Figure

5 shows as an example how Brazil compares to the five best ranked countries in IAIF (2006). In addition to overall scores, an analysis of Supra, Inter and Intra sub-indices will help to identify the factors that deserve greater attention and have higher potential. Figure 6 shows a simplified example of the type of analysis that can be used with the sub-indices, where their current contribution is compared to its maximum potential. Figure 6 suggests that the interventions with higher potential are those at inter- and intra-sectorial levels. Every indicator and factor used to construct the IAIF should be analysed, i.e. each of the 20 indicators and the more than 80 variables that make up these indicators. Priority for action should be given to those factors which make the greatest contribution to increasing IAIF performance, or rather those with the highest potential to generate impact. A measure of the growth potential for each indicator may be obtained by calculating the spread between the current and potential scores. In our example, Figure 6 shows that the IAIF analysis should concentrate on the indicators of the Inter- and Intra-sub-indices. Figure 7 helps to further identify

the priority indicators within these sub-indices and how they compare to each other.

The indicators in Figure 7 need to be weighted according to how important the sub-index in which they are located affects the final IAIF score. The weighted results of Figure 8 indicate that the factors are, in order of decreasing priority: forest industry business support, adverse actions, labour, forest resources, trade licences and permits, and property rights. It is beyond the scope of this study to undertake a complete application of the PROMECIF, therefore further step of the process are only a brief described.⁶

Complementary Analysis

The factors identified must be studied in detail to improve our understanding of how the investment climate is determined. It should explain the processes that led to the current situation, and thus suggest actions that inhibit or promote investments. Complementary studies identify and fill gaps in data, information and analysis, and help the CC to identify problems and opportunities, the future situation, and the strategies and specific actions that would be required to achieve the desired situation. The diagnostic stage is concluded when all the elements required for defining a strategy and action plan are in place.

Defining Strategies

Based on the diagnostics and identification of problems and opportunities, alternative intervention strategies can be designed to improve the business climate for forestry investments. It is important that members of the CC, acting within their respective competencies, adopt the recommended interventions. They can act directly or articulate their actions with other authorities.

Action Plan

The Action Plan is a set of strategic interventions or actions that make supra-, inter- or intra-sectorial factors more favourable

to forest businesses. The methodological tool recommended for the preparation and implementation of the Plan of Action is the Logical Framework.

Phase III - Implementation, Monitoring and Evaluation

Implementation of PROMECIF starts as soon as the Plan of Action is validated by the CC. The process begins by identifying the most appropriate source of funding for each strategic action. Once funding is obtained, a detailed analysis and design of the project that takes into consideration the requirements of the funding source(s) is carried out. Once approved, the plan is implemented, monitored and evaluated by the implementing agency, the CC and other independent entities. Once the execution is completed, an evaluation provides lessons for future projects. Post-evaluation may help to decide whether further actions are needed to achieve the desired situation, which in turn kick-starts a new cycle of PROMECIF.

5.2 Improving business climate critical factors

This section provides a brief discussion of some of the critical issues and factors that affect the business climate for FDI in agriculture and the forest sector (Chaddad and Jank, 2006) (OECD, 2009). The discussion is structured using the same 'supra', 'inter', and 'intra' classification of factors used in the above.

i. Improvement in Supra-Sectorial Factors

Supra-sectorial factors are those which affect the whole economy and therefore unlikely to be changed to accommodate the needs of any particular sector. Nevertheless, an evaluation of these is necessary both to illustrate their impacts in a given sector and for policy debate. Supra-sectorial factors that may be considered include exchange rates, interest rates and taxation.

⁶ The PROMECIF has been fully applied in Panama, Paraguay and Ecuador with the financial and technical support of the Inter-American Development Bank.

BOX 7

Restrictions to land ownership by foreigners in Brazil

Brazil's National Security Council does not allow foreigners to own land located within 150 km of the national borders. In addition, the Brazilian Chamber of Deputies approved in October 2009 legislation that would further restrict foreign ownership of land along Brazil's borders, and within the Amazon. This legislation is not yet binding because it requires the approval of the Brazilian Senate and that of the President. In August 2010, the Nation's General Attorney issued a directive, approved by the President, which limits the size of properties that foreigners are allowed to own.

- Exchange Rates: Brazil adopted in 1998 a flexible exchange rate that allows for a greater competitiveness in the international markets and, as a consequence, increased exports and the flow of FDI for agribusinesses.
- Interest Rates: The implementation of Plan Real in 1994 put a downward pressure on both inflation and interest rates. Though they continue to be high in real terms due to spreads associated with risk premiums, their persistent decline of the last 10 years has stimulated investments agriculture.
- Tax burden: In the last eight years the internal public debt has almost doubled, reaching around US\$1 trillion, and taxes have escalated. The tax burden is considered a major factor affecting the competitiveness of the Brazilian businesses, and has deterred investors.

ii. **Improvement in Inter-Sectorial Factors**

The inter-sectorial factors that have most affected investments in agriculture and forestry and highlighted include economic infrastructure, social infrastructure and environmental restrictions.

- Economic infrastructure: Transport and energy are very relevant and yet Brazil has in general neglected its transportation network (highways, railroads, ports, airports, waterways) and the energy sector (bioenergy, hydroelectricity, oil) requires substantial investments for prices to remain competitive into the future.
- Social infrastructure: Brazil's performance of the Human Development Index is relatively low, scoring only 0.699 points and ranking

BOX 8

Forest vocational land policies

One solution to minimizing conflicts between agriculture and environmental protection is the adoption of a Forest Vocation Land (FVL) policy. It identifies lands that are more at risk of erosion and runoff, and requires from landowners that want to use them, the adoption of specific measures to preserve land and water. Lands that are not subject to risk of degradation, the so called non-forest vocation lands, may be put to any use, including forestry. The Forest Vocation Land policy is intuitive, simple and inexpensive to establish and enforce.

73rd in a total of 182 countries evaluated. Low scoring represents low productivity, and therefore reduced competitiveness.

- Environmental restrictions: The conflict between environmental protection and the creation of an enabling environment for investors raises complex issues that are beyond the scope of this Chapter.

iii. Improvement in Intra-Sectorial Factors

As described above, intra-sectorial factors pertain to agriculture and forestry, affect the costs, benefits and profitability at various stages of the value chain, and are under the mandate of the agricultural authorities who have the power to address them. The factors discussed here include land property rights and reconciling agricultural and forest uses with environmental protection.

- Property rights: Land property rights that are protected by the State and respected by the Rule of Law are paramount to agricultural investors, where businesses normally take a long time to mature. In relation to foreign investors, governments are sometimes obliged by geopolitical reasons to apply certain restrictions as described, for the case of Brazil, in Box 7.
- Reconciling agriculture with environmental protection: Decisions on whether a particular piece of land should be allocated for agriculture or forestry are always problematic. At a highly competitive commercial level, agriculture and forestry are often mutually exclusive alternatives. In many cases, lands covered with native forests are converted into agricultural land uses, resulting in deforestation. Traditionally, deforestation comprises as a first step the slash-and-burn process, which in itself is a major source of greenhouse gases. Misused land often generates erosion, and

runoff which deteriorates the quality of the environment, reduces natural fertility of the soils, and pollutes waters. All these situations exemplify the need for clear rules of the game so that the decision about land in the country can be made taking private and social considerations into account, such as the Forest Vocational Land policy (Box 8).

6. Conclusions and recommendations

Brazil is a relatively large recipient of foreign direct investments, accumulating 45 percent of all FDI in South America and nearly a quarter of the whole of Latin America and the Caribbean. The share of the total inward FDI flows that is allocated to agriculture in Brazil varies every year, but has an average of 20 percent in the period 1998–2007. Up to 2009, agricultural related industries (agricultural processing) received 90 percent of the total, with food and beverages capturing US\$21.3 billion or 61 percent. Within primary production agriculture, the largest recipients are crops and livestock, followed by forestry.

Transnational corporations have had an important role in the economic history of Brazilian agriculture. Monsanto, DuPont, Dow Chemicals and Bunge, have been active in the country for decades. Today, only 4 of the world's largest 25 agricultural TNCs have no operations in Brazil. TNCs in Brazil operate at all the stages of the value chain, from the supply of inputs including the production of machinery and equipment, to primary production, processing, wholesale, retail and export levels.

This chapter highlighted some of the key policies and actions that have contributed to investment and production growth in Brazilian agriculture over the years, notably in bringing agriculture-based development to the savannah region. These include:

- i. The National Programme for Family Agriculture (PRONAF), a large agricultural and rural credit programme that gave

access to credit to a large number of small and medium farmers;

- ii. The Brazilian Agricultural Research Company (EMBRAPA), which with a new paradigm of research development has yielded technological packages adequate to the country's major agricultural ecosystems;
- iii. A dynamic partnership policy that included international investment support for the development of the inter-land, especially the savannahs of the central-west region of Brazil that became the most important agricultural producing area of the country;
- iv. The National System for Rural Extension and Technical Assistance, implemented through the Brazilian Enterprise of Technical Assistance and Rural Extension (EMBRATER), a comprehensive agricultural and rural extension service created in 1954 for the state of Minas Gerais, which was expanded in the late 1970s to all states.
- v. The First and Second National Development Plans (PND), an infrastructure investment programme that was implemented during the 1970s. The programme built a large network of roads that allow the transport of agricultural production from otherwise remote areas of the savannahs, power lines, communications facilities and a network of factories that produce and distribute agricultural inputs, machinery, and tractors;
- vi. The Brazilian Storage Company (CIBRAZEM), a large network of storage facilities that buy, store and distribute agricultural produce.

Several of these public initiatives have been dismantled over the years as the private sector takes over their roles, notably for the production of inputs and machinery. However, others are still strong such as EMBRAPA and PRONAF.

This chapter also showed how the business climate of a country can be measured using as an example the Forest Investment Attractiveness Index (IAIF). IAIF also explains how private direct investment in forestry is affected by various factors, both inside and outside agriculture. IAIF is applicable for the specific purpose of investments in forestry. It allows static comparisons between countries or how attractiveness changes in

any particular country over the years. It assists investors in the identification of countries where a sustainable forest business is most likely to be successful, and flags Supra, Inter and Intra sectorial factors that affect the business climate.

The chapter presented a process used by countries seeking to improve their business climate that is called PROMICEF. Lastly, it presented a brief analysis and recommendations for improving key factors that require attention from stakeholders seeking to improve the business climate for investments. These include at Supra-sectorial level: exchange rates, interest rates and tax burdens; at Inter-sectorial level economic and social infrastructure and environmental restrictions; and at the Intra-sectorial level, the availability of forest vocation lands and solving conflicts related to environmental concerns.

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TANZANIA:

Analysis of private investments in the agricultural sector of the United Republic of Tanzania¹



1. Introduction

In Africa, international concerns have been raised by recent foreign, large-scale land acquisitions over the impacts on small farmers and food security. There are fears that local concerns are not emphasized in investment contracts and international investment agreements, and that domestic laws are inadequate to redress this imbalance. However, given the limited information on the nature and impact of these investments, this chapter attempts to highlight the key issues. The study examines the extent, nature and impact of international (private) investments in the agricultural sector of the United Republic of Tanzania. It achieves this by analysing the policies, legislation and institutions and other related issues affecting international investment generally. Agriculture and land are then examined in more specific detail. It traces the evolution of investment and divestiture policies, and highlights the primary practices and policies – including business models – influencing the investment climate in the country. The investment status of certain agricultural commodity sectors is then identified and the areas of the value chains that are more attractive to investors are examined. Finally, the study proposes options for policy-makers and investors to ensure that the nation's food security and the rights of resource-poor farmers are not compromised by these large-scale land investments.

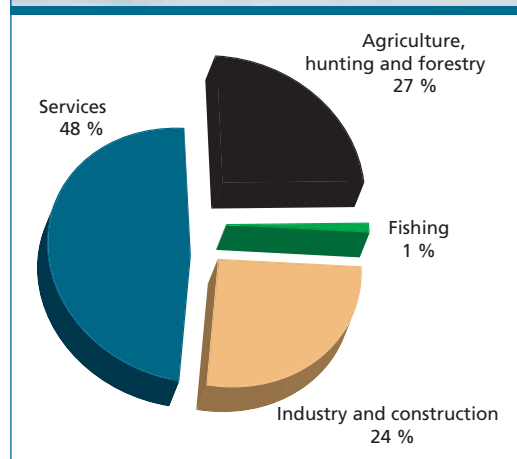
Agriculture is the backbone of the Tanzanian economy; it contributes significantly to the production of food and raw materials for industries, employment generation and foreign

exchange earnings. In 2009, agriculture contributed about 27 percent to the GDP; second only to the services sector (Figure 1). Given the economic significance of this sector, investment (both public and private), is seen as a way of spurring economic growth. The role played by foreign direct investment (FDI) in stimulating production, bringing in new technology and capital for investment, contributing to the balance of payments and opening up employment is generally recognized.

Since the mid-1980s, the Tanzanian economy has undergone a gradual and fundamental transformation that has redefined the role of government and the private sector. Under the current prevailing environment, most of the production, processing and marketing functions have been assigned to the private sector, while the government has retained regulatory and public support functions. These macro changes have,

FIGURE 1

Shares of GDP by type of economic activities, 2009 current prices



Source: Economic Survey, URT 2010

¹ This chapter was prepared by Suffyan Koroma, Economist, Trade and Markets Division, FAO and Bede Lyimo, Tanzanian national Consultant.

and will continue to have, a profound impact on the agricultural sector in which already agricultural input and output prices have been decontrolled, subsidies have been removed, and the monopolistic tendencies of cooperative and marketing boards have been significantly reduced. The government and stakeholders in agriculture are working to achieve by the year 2025 an agricultural sector that is modern, commercial, highly productive and profitable, and which utilizes natural resources in an overall sustainable manner and acts as an effective basis for inter-sectoral linkages.

2. Overview of the regulatory and incentive framework

Tanzania's investment climate has improved considerably following strategies geared towards greater private sector participation in the economy, and an improved regulatory and legal framework – in particular the Tanzania Investment Act 1997, which sets out clear criteria for all potential investors and encourages private sector financing, together with the establishment of the Tanzania Investment Centre as a *one-stop* facilitation institution. Parastatal reforms were designed to diminish the dominance and monopolistic characteristics of state-owned enterprises as part of wider structural adjustment initiatives. Reforms also include allowing the private sector to compete in marketing and processing of cash crops in the increasingly liberalized economic environment. Revisions in the land law rules enable long-term leasehold property rights of up to 99 years for both domestic and foreign investors.

Changes in the provision of public services, coupled with greater predictability, consistency and transparency of the investment environment have attracted positive attention in recent years. For example, the Public Procurement Act implemented in 2005 was designed to enhance the transparency of the Public Procurement Regulatory Authority (PPRA) and promote the participation of local firms in the area of public procurement.² A presidential Commission, the

PRSC, was formed to oversee the transfer of property rights from state to private sector. After the transfer, the respective ministries were required to follow up implementation of the contracts entered into between the government and private buyers.

Financial reforms have enhanced the investment climate, enabling 26 licensed banks (both foreign and domestic), to be fully operational in the country. In addition, non-bank financial institutions (e.g. telephone money transfer services, etc.) are licensed to conduct business in the country.³ However, non-residents of the United Republic of Tanzania cannot generally borrow directly from local banks but foreign investors may acquire credit in the country for inputting capital locally or importing capital goods to be used inside the United Republic of Tanzania. While normal banking regulations are followed, few overseas investors borrow from local banks because of the high interest rates which range from 14 to 24 percent for ordinary borrowers (although larger firms can negotiate lower rates).⁴ A credit reference bureau is expected to become operational during the second half of 2012, which will facilitate expansion of credit to MSMEs (Micro, Small and Medium Enterprises).

The introduction of private banks has enabled the freeing-up of interest rates. The Foreign Exchange Act of 1992 removed foreign exchange restrictions and was implemented by the Bureau de Change Regulations of the same year. The Act has greatly alleviated shortages of foreign exchange. Under the Capital Markets and Securities Act 1994 (amended in 1997), capital that supports product or factor markets can be freely exchanged. Through this instrument, the Dar-es-Salaam Stock Exchange was opened to foreign investors with a maximum limit for

<http://www.state.gov/e/eeb/ifa/2006/62039.htm>

³ One very popular scheme in Eastern Africa is the M-PESA – M for mobile; PESA, Swahili for money, is the product name of mobile (SMS) based money transfer system.

⁴ Investment Climate Tanzania, available at <http://www.state.gov/e/eeb/ifa/2006/62039.htm>

² Tanzania Investment Climate report, available at

foreign participation set at 60 percent.⁵ This law is currently under review to bring it in line with international standards, and to comply with the International Organization of Securities Commissions (IOSCO) Multilateral Memorandum of Understanding.⁶

As the government cannot fund capital investment, or provide new equity to revive enterprises in many cases, these reforms are expected to strengthen the development of capital markets so as to enable investors/ companies to raise funds and increase the public accountability of businesses.⁷

The regulatory framework allows for unconditional transferability, via authorized banks and in freely convertible currency, of net profits; the repayment of foreign loans; charges in respect of foreign technology, etc.⁸ Regulation of the financial sector is the responsibility of the Bank of Tanzania whose authority was enhanced by the Banking and Financial Institutions Act of 1991.

Tanzania's competition policy seeks to mitigate restrictive business practices which ultimately result in high prices, poor quality and limitations on the availability of certain products. The policy promotes free trade and access to markets by prohibiting anti-competitive behaviour and the abuse of dominant market position.⁹ The objective of the competition policy has been identified as being "to address the problem of the concentration of economic power arising from market imperfections, monopolistic behaviour in economic activities and consequent restrictive business practices".¹⁰ The Fair Competition Commission

(FCC) was established by the Fair Trade Practices Act of 1994 (amended in 2000), to monitor compliance with competitive equality standards.

Tanzania's BEST programme (Business Environment Strengthening for Tanzania) was designed to reduce the difficulties associated with operating a business in the country; improve government services, and reformulate the regulatory framework. Other programmes to enhance agricultural productivity include the Agricultural Sector Development Programme (ASDP) and the Integrated Road Projects (IRP) to open up transport networks including rural roads in key agricultural areas.¹¹ An Export Credit Guarantee Scheme (ECGS) has also been set up by the government in partnership with the Bank of Tanzania which is responsible for administering the scheme.¹² Investors in EPZs (export processing zones) have benefited from this mechanism as well as buyers and exporters of crops.

3. Investment in the United Republic of Tanzania

In 2009, the government continued to make reforms aimed at reducing the costs of doing business through the Tanzania National Business Council and the programmes under Business Environment Strengthening for Tanzania (BEST) and Business and Property Formalization (BPF). According to the World Bank Report *Doing Business*, the United Republic of Tanzania made progress on indicators related to business contracts and employment. In general, the country's ranking rose slightly from 127 out of 181 countries reducing the costs of doing business in 2008, to 126 out of 183 in 2009.

In 2009, a total of 572 projects valued at Tshs.2 970 730.10 million were registered with an employment potential of 56 615 people, compared to 871 projects worth about Tshs.8 billion, with

⁵ Investment Climate Tanzania, available at <http://www.state.gov/e/eeb/afd/2006/62039.htm>

⁶ http://www.cmsa-tz.org/lagislation/legisla_pipeline.htm

⁷ <http://www.psrtz.com>

⁸ Wetzel H, FY 2004 Country Commercial Guide for Tanzania, International Market Research Reports, US Foreign and Commercial Service and US Department of State.

⁹ National Trade Policy Background Papers: Trade Policy for a Competitive Economy and Export-led Growth, Ministry of Industry and Trade, Dar-es-Salaam 2003, at p. 81.

¹⁰ National Trade Policy Background Papers: Trade Policy for a Competitive Economy and Export-led Growth, Ministry of Industry and Trade, Dar-es-Salaam 2003, at p. 81.

¹¹ Investment Opportunities – Tanzania: Investors Guide', Agricultural Sector Profile, Tanzania Investment Centre, Dar-es-Salaam.

¹² SADC Trade Industry and Investment Review 2006: Country Profiles - Tanzania, available at http://www.sadcreview.com/country_profiles/frprofiles.htm

TABLE 1**Distribution of private investment projects in the United Republic of Tanzania, 2009**

Sector	Number of projects	Capital invested (million Tshs.)	Employment potential
Manufacturing	183	654 472	14 143
Tourism	151	519 259	7 302
Construction	81	922 467	3 360
Transport	61	303 849	5 659
Agriculture	27	45 626	15 114
Human Resources	25	174 226	6 597
Services	16	25 026	814
Financial Institutions	8	65 662	665
Economic Infrastructure	6	80 535	1 495
Telecommunications	5	39 000	88
Broadcasting	4	77 376	1 098
Energy & Natural Resources	5	21 112	88

Source: Economic Survey, URT 2010

employment potential of 109 521 people in 2008. Out of the total projects registered in 2009, 407 were new, while 165 were listed for rehabilitation and expansion. A total of 284 projects were owned by local investors; 149 were owned by foreign investors and 139 were joint venture projects. The distribution of the projects was as shown in Table 1:

3.1 Foreign Direct Investment

Foreign direct investment serves as an important complement to domestic investment as a source of external capital. Domestic savings in developing countries such as the United Republic of Tanzania are small. It is widely accepted that the successful impact of FDI flows into the country hinges on the level of progress in education, technology, infrastructure, and financial markets.¹³ This means that comprehensive policies are needed, such as export promotion schemes, or those which promote local technological competence (such as

training), to better harness technology transfers brought about by FDI. National treatment is accorded to all FDI in the United Republic of Tanzania.¹⁴

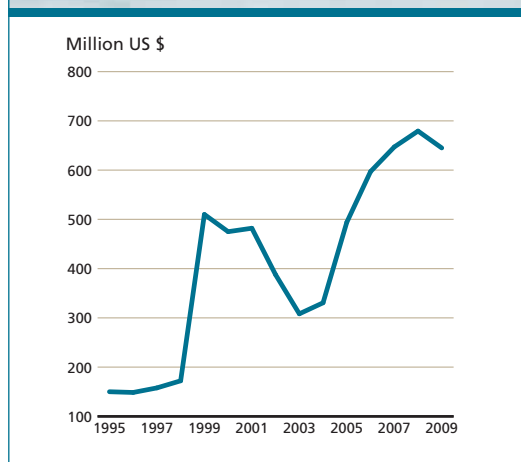
As part of its efforts to improve the investment climate, the government continued to enforce the application of Environmental Impact Assessments (EIA) before executing any large-scale investment projects. Thus, in 2009, more than 90 percent of the projects were given operational certificates after meeting the EIA requirements and standards.

A marked consequence of the improved investment climate has been the increased flow of foreign direct investments (FDI) into the country since 1995, as evidenced in Figure 2. The United Republic of Tanzania's FDI inflows were at their highest level of US\$744 million in 2007, making it one of Africa's leading FDI target countries. However, in 2009, FDI declined by 14.5 percent to US\$650 million, due to the impact of the global financial and economic crises. Figure 2 maps out the evolution of FDI between 1995 and 2009. Despite the impressive sums of FDI inflow

¹³ Msuya E (2007). 'The Impact of Foreign Direct Investment on Agricultural Productivity and Poverty Reduction in Tanzania', Kyoto University Munich Personal RePEc Archive (MPRA) Paper No. 3671, available at <http://mpra.ub.uni-muenchen.de/3671/>

¹⁴ WTO Trade Policy Review - Doc WT/TPR/S/171/TZA, available at http://www.wto.org/english/tratop_e/tpr_e/s171-02_e.doc

FIGURE 2
Trends in FDI in Tanzania



Source: Tanzania Investment Centre (TIC)

into the country, Tanzania Investment Centre (TIC) reports indicate that agriculture has not attracted a large share of this foreign investment. However, this can also be explained by the fact that projects that involve agro-processing like beverages, etc. (which have attracted considerable investment in the United Republic of Tanzania) are not included under agriculture.

Tanzanian agriculture is dominated by smallholders with low levels of productivity, but also limited education, skills and experience, and insufficient access to credit and input. Their low performance, small-scale and weak institutional arrangements therefore do not make them a viable option for joint ventures with foreign investors.

Furthermore, only a small fraction of those that are sufficiently organized and structured to support foreign investments (for example the sugar, barley and sisal subsectors), or larger commercial enterprises, are able to attract a greater percentage of FDI.¹⁵ Empirical evidence

suggests that smallholder producers with links to larger estates and foreign firms benefit from increased productivity and efficiency.¹⁶

Large-scale, foreign-owned farming operations in the United Republic of Tanzania include Brooke Bond (tea) from the United Kingdom, Ilovo (sugar) from South Africa and Africa Plantations (coffee) from Zimbabwe.¹⁷ South Africa, Kenya, United States, United Kingdom, Germany, India, Thailand, Canada and Italy comprise 90 percent of the foreign investments in the country.¹⁸ Although South Africa is perceived as the leading foreign investor in the country in terms of quantity of investment,¹⁹ the United Kingdom is the largest investor with respect to employment, projects and investment value (Table 2).

Although both public and private sector investment are rising, as evidenced by the trends in capital formation (Table 3), public sector capital formation has declined from 39 percent in 2002 to 26 percent in 2009.²⁰ Total private sector fixed capital formation experienced an eight-fold increase during the same period. Comparatively, the United Republic of Tanzania is one of sub-Saharan Africa's primary FDI target countries; however, statistics demonstrate that FDI has been primarily directed at mining and quarrying activities, with much smaller levels of FDI going towards the agricultural sector. Investments in

¹⁵ Msuya E (2007). 'The Impact of Foreign Direct Investment on Agricultural Productivity and Poverty Reduction in Tanzania', Kyoto University Munich Personal RePEc Archive (MPRA) Paper No. 3671, available at <http://mpa.ub.uni-muenchen.de/3671/>

¹⁷ 'Investment Opportunities – Tanzania: Investors Guide', Agricultural Sector Profile, Tanzania Investment Centre, Dar-es-Salaam.

¹⁸ Wetzel H, FY 2004 Country Commercial Guide for Tanzania, International Market Research Reports, US Foreign and Commercial Service and US Department of State.

¹⁹ Mkono N. and Wilms BJ, 'Gateway to Foreign Investments in Tanzania', Mkono and Co Advocates, Dar-es-Salaam, available at http://www.iflr.com/?Page=10&PU_BID=33&ISS=20856&SID=595031&TYPE=20

²⁰ Capital formation is the transfer of savings from households and the government to the business sector resulting in increased output and economic expansion.

¹⁵ Msuya E (2007). 'The Impact of Foreign Direct Investment on Agricultural Productivity and Poverty Reduction in Tanzania', Kyoto University Munich Personal RePEc Archive (MPRA) Paper No. 3671, available at <http://mpa.ub.uni-muenchen.de/3671/>

TABLE 2
Top 10 foreign investors *

Foreign Investor/country	Investment value (US\$ million)	Employment created	No. of projects
United Kingdom	1 115	232 030	595
Kenya	958.21	37 511	249
India	825.88	-	-
South Africa	466.58	14 243	111
Netherlands	426.58	-	-
China	383.23	-	-
United States, Germany, the UAE and Botswana	696.3	-	-

* ImaniLwinda, 'UK, Kenya Leading Investors in Tanzania', The Sunday Observer, 3 June 2007, available at:
<http://www.ippmedia.com/ipp/observer/2007/06/03/91766.html>

agriculture are categorized into 'new' and 'old' (potential for expansion and rehabilitation), which includes privatized entities. At present however, while the investment level has fallen to between 16 and 18 percent of the agricultural GDP, the government contribution has been much higher (Table 3).²¹ Foreign investment has

traditionally been the major source of funding. Capital investment, FDI and joint venture projects have increased, although it should be noted that the sectors that attract the most FDI interest are mining, manufacturing and tourism.²²

²¹ WTO Trade Policy Review - Doc WT/TPR/S/171/TZA, available at http://www.wto.org/english/tratop_e/tpr_e/s171-02_e.doc

²² Wetzel H, FY 2004 Country Commercial Guide for Tanzania, International Market Research Reports, US Foreign and Commercial Service and US Department of State.

TABLE 3
Capital formation by public and private sectors at current prices

Sector	2002	2003	2004	2005	2006	2007	2008	2009
Tshs. million								
Public Sector:								
Central Gov't	568 022	753 610	953 157	1 039 910	1 134 578	1 352 763	1 628 172	1 921 243
Parastatals	59 405	72 745	119 245	162 413	141 822	141 570	148 299	157 197
Institutions++	72 900	89624	120 042	138 362	141 822	144 659	152 971	163 067
Total Public Sector	700 327	915 979	1 192 444	1 340 685	1 418 222	1 638 992	1 929 442 214	2 241 506 986
Private Sector								
Private Sector	1 050 490	1 372 817	1 903 078	2 618 878	3 465 267	4 480 021	5 344 872	5 779 463
Total Fixed Capital	1 750 817	2 288 796	3 095 522	3 959 563	4 883 489	6 119 013	7 274 314	8 020 970
Increase in Stocks	44 596	43 387	57 845	64 405	74 292	90 728	106 943	152 252
Total Capital Formation	1 795 413	2 332 183	3 153 367	4 023 968	4 957 781	6 209 741	7 381 257	8 173 221

++ Includes non-profit making organizations
Source: National Bureau of Statistics

In the agricultural sector, however, there have been an increasing number of investors targeting mostly the biofuels sector as shown below in Table 4. The range of commodities has been widened to include dynamic products for export. The main non-traditional commodities which have attracted investments in recent years include sugar, seaweed, maize, poultry, mushrooms, vegetables and cut flowers, beef ranching, fruits, sesame, honey and moringa trees. However, the bulk of recent investments have been geared towards biofuels – jatropha, oil palm and sugarcane, etc.

4. Divestiture policy

A greater degree of privatization was advocated to revive the ailing parastatals under government control, increase government revenue, increase employment and to broaden ownership and participation in management of these enterprises. Privatization enables the sale of non-performing assets, and has been seen to increase production (for example, the sugar industry production levels rose from 96 227 metric tonnes during 1988/89 to 229 617 metric tonnes during 2004/05. In the United Republic of Tanzania, opportunities for new investment were unable to be seized as a result of the government's focus on maintaining production and solvency.²³ Increased privatization measures, through the Public Corporations Act 1992 (as

amended in 1999) promoted private sector participation in the economy and encouraged local ownership in the newly privatized, state-owned enterprises by reserving a certain amount of shares for sale to Tanzanians.²⁴ The Parastatal Sector Reform Commission (PSRC) coordinates the government's restructuring and privatization efforts of state-owned enterprises and government shares in privately owned companies.

The parastatal divestiture seeks to fuel investment in agricultural firms through the enhancement of production of these enterprises; the objectives of the Tanzanian divestiture policy as regards agricultural parastatals are to "increase efficiency, productivity, and quality of goods, and services through capital injection, new and improved management and technology."²⁵ Unfortunately, several problems present themselves as regards Tanzanian parastatals. Acquisitions have led to a number of lay-offs; the cutback of benefits to existing workers has meant that the latter have slowed down the divestiture process until their remuneration is clarified.²⁶ Inadequate legal

²³ <http://www.psrtz.com>

²⁴ Mkono N and Wilms BJ, 'Gateway to Foreign Investments in Tanzania', Mkono and Co Advocates, Dar-es-Salaam, available at http://www.iflr.com/?Page=10&PUBID=33&IS_S=20856&SID=595031&TYPE=20

²⁵ Agricultural and Livestock Policy (1997), Ministry of Agriculture, Dar-es-Salaam.

²⁶ Agricultural and Livestock Policy (1997), Ministry of Agriculture, Dar-es-Salaam.

TABLE 4

Selected agro-based Investments in the United Republic of Tanzania by source country, sector and estimated jobs

Date	Source country	Investment (US\$)	Estimated jobs	Sector
June-11	United Kingdom	45 000 000	150	Beverages
September-09	Republic of Korea	6 200 000	156	Food & Tobacco
May-09	United Kingdom	20 400 000	261	Beverages
April-09	United Kingdom	20 000 000	211	Beverages
December-08	United States	12 000 000	126	Beverages
August-08	Kenya	21 800 000	287	Food & Tobacco
June-08	United Kingdom	50 000 000	150	Beverages
November-04	Belgium	1 000 000	5	Food & Tobacco

Source: FDI Markets

safeguards to guarantee continuity of divested interests further reduce investor confidence, as does the lack of policy guidelines that protect local expertise in the newly privatized parastatals. Indeed, there was not always sufficient encouragement of local ownership; in any event, the majority of the local population has neither the capital, nor the ability to access credit to allow them to participate in the divestiture process.²⁷ To overcome these problems towards a sustainable and accelerated divestiture process, the following policies were identified:²⁸

- MAFSC will advocate for divestiture of production and commercial oriented parastatals.
- Since MAFSC parastatals are land based, attaching value to the land asset, promotion of employment and wider participation of people including those surrounding the enterprises being divested, will be considered.
- The government will continue to invest in strategic areas which have failed to attract investors.

In 1994, agriculture-related state enterprises were put under the PSRC. There are no restrictions on foreign participation in the newly privatized enterprises; the tender evaluation criteria are published in the tender invitation and related documents.²⁹ Furthermore, in line with reducing its role to one of enforcing regulations, the Tanzanian Government withdrew its majority stakes in the parastatals and instead focused on the promotion of a competitive economic environment, controlling restrictive trade practices and setting up appropriate regulatory frameworks.³⁰

The particular approach taken for the state-owned enterprise depends on the characteristics of the entity; for example, should the company suffer severe losses which cannot be recovered, it is likely to be liquidated. If the enterprise is still commercially viable, restructuring of the entity is likely to be carried out by the new owner.³¹ The choice of divestiture method is selected according to the objectives of the particular privatization, following an assessment of factors including *inter alia* financial viability, the nature of the industry and technology involved, whether a certain degree of public ownership is economically desirable, and its past performance.

These considerations will affect the degree of investment and the types of investors attracted. Investors can therefore enter the market through the following divestiture methods: trade sales and joint ventures (the most common privatization method), public share offers, public auction, private placement, buy-outs by management and/or employees, privatization funds as purchase vehicles for wider share ownership. In some cases, the sale of shares is not possible and requires ownership to remain the same, for example through the use of lease and management contracts. These methods are not conducive to investment and do not offer investors much incentive to make creative, long-term restructuring of the parastatals; these options have not proved to be as successful for the United Republic of Tanzania as anticipated, in situations where managers do not have a large ownership stake in the enterprise.³² The PSRC itself recognizes the time taken for the divestiture process to be completed – however, the divestiture process itself should not serve as an impediment to investors.

Investment opportunities are visible at the implementation phases of the divestiture, and the ways in which the government can make the sale or its negotiating position stronger depends on the method of divestiture. The government can strategically attract investors by following the approaches identified in the Tanzania Investment Centre website:

²⁷ Agricultural and Livestock Policy (1997), Ministry of Agriculture, Dar-es-Salaam.

²⁸ Agricultural and Livestock Policy (1997), Ministry of Agriculture, Dar-es-Salaam.

²⁹ 'An Investment Guide to Tanzania: Opportunities and Conditions', United Nations Conference on Trade and Development (UNCTAD) and International Chamber of Commerce (2005).

³⁰ <http://www.psrtc.com>

³¹ <http://www.psrtc.com>

³² <http://www.psrtc.com>

- preparation of sales memoranda, prospectuses or other suitable documents for the targeted investors;
- marketing the offer, including targeted advertising and industry and trade searches to identify buyers;
- pre-qualifying buyers, inviting bids;
- assessing bids or proposals against predetermined selection criteria.

In furtherance of these goals of broad ownership, shares are sold to the general public (local and foreign) and through management and employee buy-outs. The latter is encouraged, at a discount or on deferred terms, as a matter of policy.³³ Other mechanisms by which the government seeks to achieve wider share-

³³ <http://www.psrctz.com>

BOX 1

Incentives under the Parastatal Sector Reforms

To promote broader ownership

arranging for deferred payments by new indigenous owners out of profits;
employee share ownership schemes with a discounted price;
deferred payment schemes for such shares with loans from banks backed by government guarantee or pledge of securities;
retention by government, through Privatization Trust, of blocks of shares for wider sale at future dates. Alternatively the core private buyers could be required to divest part of their shareholdings at a later date. The approach towards pricing such shares needs to be agreed in advance;
tax incentives to share purchasers, on a case-by-case basis, comparable to those received by incoming investors in new businesses.

To promote domestic investment

the putting together of consortia combining a core investor, a technical partner as appropriate, and indigenous investors wherever feasible;
pre-qualification of bidders to ensure, inter alia, that ownership will not be too concentrated; and
transparency in indicating criteria on which bids will be evaluated, including preferences for widening the entrepreneurial and ownership base, but always emphasizing the need for sustaining competitiveness.

To protect the interests of investors, consumers and employees

legislation to curb restrictive trade practices and regulate the use of monopoly power;
equal access to investment incentives whether in new enterprises or in divested businesses; and
equal employment opportunities and security of employment legislation.

Special incentives for new businesses

assisting displaced employees to use any retrenchment grant for business start-up;
training, technical support and advisory services;
assistance in obtaining loans, equity investment; and
relocation support.

Source: PSRC website

ownership involve specific strategies such as discounts or reductions of certain fees and taxes, lowered purchase prices for domestic investors, including deferred payments. In order for domestic entrepreneurs to have access to sufficient credit, the Entrepreneurship Development Fund, together with merchant banks and financial institutions are working together to facilitate funding and provide advisory services to emerging businesses.

The divestiture method adopted as the useful for stimulating investments (particularly from foreign sources), is the joint venture/trade sale to another company either in its entirety or parts of the enterprise. This new investment is expected to inject financial and technical resources to stimulate production, and improve marketing and management. Investment in agricultural firms could also be in the form of the sale of shares through the stock market, auction or private placement.³⁴

Foreign direct investment into the United Republic of Tanzania is a comparatively recent phenomenon. As regards traditional commodities, a fairly common method of FDI entry has been through mergers and acquisitions, where multinational or foreign enterprises acquire complete ownership or majority shares in local establishments.³⁵ Historically, parastatals enjoyed monopolies in these traditional commodities, but the reformed economic climate – which facilitated acquisitions – enabled the unproductive and poorly managed parastatals to be privatized to multinational corporations. Acquisitions enable the possibility of capitalizing on existing local networks and suppliers as well as existing local and regional markets. Foreign direct investment has also come into the United Republic of Tanzania through what are termed ‘green-field’ investments in non-traditional sectors such as fishing, or cotton ginning; these types of investments are where foreign parent companies enter developing countries and construct new operational facilities. These investments are noted for their creation of new jobs locally.

³⁴ <http://www.psrctz.com>

³⁵ Ngowi, ‘Foreign Direct Investment Entry Modes in Tanzania’, *Tanzanet Journal* Volume 3(1) 2002, at pp 1-2.

5. The TRIMs agreement

The role of the WTO Agreement on Trade-related Investment Measures - TRIMs Agreement, which aims to negate the trade restricting and distorting effects of investment measures that applies to the goods trade only, in shaping the investment policy of the country should be considered. As a Member State of the WTO, the United Republic of Tanzania is prohibited from applying investment measures that are contrary to the provisions of GATT that seek to eliminate quantitative restrictions or that violate the principle of national treatment.³⁶ Local content requirements, trade balancing, exchange requirements, use of local raw materials or technology transfer requirements are examples of stipulations used to regulate foreign investments. The TRIMs Agreement fleshes out, in its Annex, the types of investment measures which run counter to the principle of national treatment.

The category of TRIMs that are inconsistent with the obligation of national treatment provided for in paragraph 4 of Article III of GATT 1994 include those which are mandatory or enforceable under domestic law or under administrative rulings, or compliance with which is necessary to obtain an advantage, and which require:

- the purchase or use by an enterprise of products of domestic origin or from any domestic source, whether specified in terms of particular products, volume or value of products, or of a proportion of volume or value of its local production; or
- that an enterprise’s purchases or use of imported products be limited to an amount related to the volume or value of local products that it exports.

Similarly, TRIMs that are inconsistent with the obligation of general elimination of quantitative restrictions provided for in paragraph 1 of Article XI of GATT 1994 include those which are mandatory or enforceable under domestic law or

³⁶ Article 2.

under administrative rulings, or compliance with which is necessary to obtain an advantage, and which restrict:

- the importation by an enterprise of products used in or related to its local production generally, or to an amount related to the volume or value of local production that it exports;
- the importation by an enterprise of products used in or related to its local production by restricting its access to foreign exchange to an amount related to the foreign exchange inflows attributable to the enterprise; or
- the exportation or sale for export by an enterprise of products, whether specified in terms of particular products, in terms of volume or value of products, or in terms of a proportion of volume or value of its local production.

Many developing countries are disadvantaged by the prohibition of local content requirements in investment schemes, which require that a business must buy or use a minimum amount of locally originating materials. This measure is useful to developing countries wishing to use this mechanism to “encourage domestic economic activities benefiting from raw materials, discouraging wastage of foreign exchange, ensuring linkages of FDI with economic activities and encouraging economic empowerment.”³⁷ While there is no mandatory requirement in the United Republic of Tanzania to use local raw materials (which would run counter to the TRIMs Agreement), investors are nevertheless encouraged to use local materials whenever possible.³⁸ Similarly, there is no legal requirement for investors to undertake technology transfers, although this, together with training local personnel, is encouraged.

Least-developed countries such as the United Republic of Tanzania are granted time concessions of seven years after the entry into force of the Agreement which expired in 2002. Developing country members are allowed to temporarily deviate from the terms of the agreement as regards balance of payments matters in accordance with the relevant provisions of GATT 1994 (Article XVIII), the Understanding on the Balance-of-Payments Provisions of GATT 1994, and the Declaration on Trade Measures Taken for Balance-of-Payments Purposes.³⁹

The intention of the government is to implement measures to enhance socio-economic development in the context of TRIMs pertaining to equity requirements, local content requirements, technology transfer and export performance; however, it has not as yet introduced such measures.⁴⁰

6. The incentives framework

Investment opportunities available in the United Republic of Tanzania are divided into two categories: the Lead Sector where businesses can import capital goods associated with the investment at 0 percent duty, and the Priority Sector where businesses can import related capital goods at a 5 percent rate. Relevant to this study, the former includes agriculture, livestock and export processing zones, and the latter includes natural resources such as fishing. Both these sectors qualify for VAT deferment until the business begins its operations; and further, a tax holiday for the first five years is granted together with a capital allowance of 100 percent.⁴¹

To qualify for a Certificate of Incentives issued by the Tanzania Investment Centre, minimum investments should be valued at least at US\$100 000 for projects owned by Tanzanian citizens and

³⁷ National Trade Policy Background Papers: Trade Policy for a Competitive Economy and Export-led Growth, Ministry of Industry and Trade, Dar-es-Salaam 2003, at p. 122.

³⁸ ‘An Investment Guide to Tanzania: Opportunities and Conditions’ United Nations Conference on Trade and Development (UNCTAD) and International Chamber of Commerce (2005).

³⁹ Article 4.

⁴⁰ National Trade Policy Background Papers: Trade Policy for a Competitive Economy and Export-led Growth, Ministry of Industry and Trade, Dar-es-Salaam 2003, at p. 81.

⁴¹ WTO Trade Policy Review - Doc WT/TPR/S/171/TZA, available at http://www.wto.org/english/tratop_e/tpr_e/s171-02_e.doc

BOX 2

Required application procedures

The intended project should aim at foreign exchange generation and savings, import substitution, the creation of employment opportunities, linkage benefits, technology transfer, expansion of goods production, etc. The feasibility study should contain: a clear statement of investment costs [foreign and local expected capital expenditure], how the proposed investment will be financed, specific sources of finance for the project, terms and conditions of the loan, sources of technology, project financial and economic analysis, market study, project capacity, production processes, environmental impact assessment, employment generation, proposed implementation schedule.

- Three completed copies of TIC application forms (issued with a fee of US\$100);
- In cases of expansion/ rehabilitation, a copy of audited account for the past three years;
- A copy of the company's Memorandum and Articles of Association;
- A certified copy of the Certificate of Company Incorporation;
- A brief investor profile;
- Three copies of the project's Business Plan/Feasibility Study;
- Evidence of sufficient financial capital to implement the project;
- Evidence of land ownership for the location of the project;
- Project implementation schedule;
- Covering letter.

Source: TIC Website

US\$300 000 for those owned by foreigners or for joint ventures.⁴² While foreigners are required to apply to the TIC for permits, locals are not subject to this stipulation in order to invest. A processing fee of US\$750 is required to accompany investment certificate applications.

In Zanzibar, which operates under a different law (the Investment Act 1986), the minimum level of investment varies according to sector. For agriculture the minimum foreign direct investment necessary to benefit from incentives is US\$500 000 for foreigners and equivalent of US\$50 000 for citizens. In the fisheries sector, the minimum for foreigners is US\$1 million, while it stands at equivalent of US\$100 000 for citizens. These discrepancies within the framework and structure are in the process of being harmonized following the greater integration of tax issues under the EAC (East African Community) framework.⁴³

⁴² <http://www.tic.co.tz>

⁴³ WTO Trade Policy Review - Doc WT/TPR/S/171/TZA,

6.1 Tax exemptions

The rationale behind the package of tax relief incentives set up by the government is to allow investors to recover their initial expenditure while their businesses take time to get off the ground before having to pay taxes.⁴⁴ The Investment Act sets up a structure for tax incentives as well as non-fiscal benefits. Under section 17 of the statute, TIC may grant TIC Certificate of Incentives which confers benefits such as automatic work permits for five foreign nationals.⁴⁵ While there

available at http://www.wto.org/english/tratop_e/tptr_e/s171-02_e.doc

⁴⁴ <http://www.tanzania-gov.it/modules.php?name=News&file=article&sid=44>

⁴⁵ It should be noted that although additional permits can be sought, approval is often difficult. There is an abundance of unskilled and inexpensive labour in Tanzania; but due to lack of training, the local workforce often does not occupy managerial or administrative positions.

is no maximum set for the number of foreign nationals working on a particular project, they are more likely to be granted working permits where it can be shown that the required expertise cannot be found locally.⁴⁶ The Certificate also confers benefits such as ease of obtaining residence and work permits, and industrial and trading licenses. Land rent on commercial agricultural farms, livestock ranches and forests is set at a nominal fee of 200 Tshs. per acre annually. Furthermore, it also grants the right to transfer out of the United Republic of Tanzania the entire amount of profit, capital and foreign exchange earned; royalty fees and similar charges; and payment of emolument and other benefits to foreign personnel.⁴⁷ It should be noted that capital transfers still require approval by the Bank of Tanzania.⁴⁸

The Certificate of Incentives provides investors with tax exemptions, particularly import duties and certain VAT exemptions on project, capital and deemed capital goods;⁴⁹ capital expenditure allowances; a special rate of corporation tax set at 30 percent, a withholding tax rate on dividends set at 10 percent and zero tax on loan interest in the priority sectors.⁵⁰ The Investment Act makes provisions for additional benefits and incentives in order to promote 'strategic or major investment' projects of over US\$20 million, determined at the discretion of the minister for those that are considered to be strategic to the economy.

A problematic clause has been identified in the Tax Revenues Appeals Act 2000 section 12(3) which declares that where a person

objects to a tax assessment, the amount which is not in dispute or one third of the assessed tax (whichever is greater) must be paid. This has been noted to give rise to a sense of unpredictability, and restrains cash flows, together with claims that unsubstantiated tax assessments are made to meet revenue targets and do not reflect the income of the businesses that are assessed.⁵¹ In this regard, there have been recommendations for a clear and simple tax appeals process, which indicates clear timeframes for each stage, to avoid abuse of the system through stalled payments, and with payments made only for undisputed assessments.⁵²

In Zanzibar, incentives under the 1986 Investment Act charge zero duty for capital goods during the beginning stages of operation of the business, although a service charge of 5 percent is still levied. For the first five years, tax holidays are granted at the discretion of the responsible minister.

The United Republic of Tanzania has signed a number of bilateral treaties which promote FDI by preventing double taxation with Canada, Denmark, Finland, India, Italy, Norway, Sweden, United Kingdom and Zambia, and with pending treaties subject to ratification with Kenya, South Africa, Republic of Korea, Uganda and Zimbabwe. While an EAC double taxation treaty was signed in 1997, the absence of ratification on the part of Uganda poses an impediment to intra-regional transactions, raising the tax rate by 50 percent.⁵³

6.2 Export Processing Zones Programme

Frequently, EPZs are used to attract FDI in countries where infrastructure is a challenge; industrial parks are then developed separately

⁴⁶ 'An Investment Guide to Tanzania: Opportunities and Conditions', United Nations Conference on Trade and Development (UNCTAD) and International Chamber of Commerce (2005).

⁴⁷ <http://www.tic.co.tz>

⁴⁸ SADC Trade, Industry, and Investment Review 2006. Country Profiles - Tanzania, available at http://www.sadcreview.com/country_profiles/frprofiles.htm

⁴⁹ <http://www.tic.co.tz>

⁵⁰ MkonoN and Wilms BJ, 'Gateway to Foreign Investments in Tanzania', Mkono and Co Advocates, Dar-es-Salaam <http://www.iflr.com/?Page=10&PUBID=33&ISS=20856&SID=595031&TYPE=20>

⁵¹ Blue Book on Best Practice in Investment Promotion and Facilitation – Tanzania, United Nations Conference on Trade and Development (UNCTAD) and Japanese Bank for International Cooperation (JBIC) 2005.

⁵² Ibid.

⁵³ Blue Book on Best Practice in Investment Promotion and Facilitation – Tanzania, United Nations Conference on Trade and Development (UNCTAD) and Japanese Bank for International Cooperation (JBIC) 2005.

BOX 3

Tax measures for agriculture

Income Tax Act 2004

- 100 percent first year capital allowance for plant and machinery used in agriculture, including irrigation tools and equipment. The measure is aimed at attracting investment in agricultural technology.
- 100 percent deduction for capital expenditure on land clearance, excavation of irrigation canals, cultivation of perennial crops and planting trees on agricultural land to prevent soil erosion. Formally these are capital expenditures and would be subject to long time deductions.
- Costs incurred in the course of environmental conservation for farming land, animal husbandry, fish farming or restoration of the land to normalcy after use are allowable deductions in assessing taxable income.
- Agricultural businesses are not subject to the equal quarterly instalment payment requirement for income tax purposes but are required to pay taxes at the end of the third and fourth quarter after harvest.
- Agricultural research and development expenditures are also deductible as expenses for income tax purposes.

Value Added Tax Act, 1977

- Unprocessed agriculture and livestock, including unprocessed meat, unprocessed fish and all unprocessed agricultural produce is VAT-exempt.
- Industries producing inputs for agriculture and fishing such as pesticides and fertilizers are zero-rated to enable producers to reclaim input VAT-incurred in the course of production. This measure is aimed at generating enabling environment for investment in the production of agricultural inputs. Imported inputs remain exempt from VAT.
- Processed tea (black tea) and packaged tea are exempt from VAT, to provide a competitive edge to local tea producers.
- Small agricultural producers whose produce is exported may receive a VAT rebate through their cooperative union or associations.

Customs and Excise Tariff Act, 1976

- Agricultural inputs and implements are subject to zero import duty.
- There is no excise duty on wine and brandy manufactured from locally produced grapes. This measure is aimed at expanding the market for wine and hence wine production.

Stamp Duty Ordinance

- Reduction of the stamp duty rate for conveyance of agricultural land to a nominal amount of Tsh.500, in order to reduce costs in conveying land ownership.
- Stamp duty on receipts has been abolished for all receipts including on sale of agricultural produce.

Vocational Education and Training Act (VETA)

- Exemption granted from Skills Development Levy for employment in agricultural farms.

Local Government Finances Act, 1982

- Agricultural produce cess limited to 5 percent of the farm gate price and within the district of production.
- Voluntary contributions collected on agricultural produce by local authorities accepted only if introduced by the village community for specific projects implemented by the village or villages.

Source: Ministry of Finance <http://www.mof.go.tz/mofdocs/news/taxationreg.htm>

to encourage domestic production. In the United Republic of Tanzania, rather than pursue two separate initiatives, the country opted to develop multi-facility economic zones (MFEZs) which would combine domestic production and export-oriented industries in one facility. Through cost-sharing with the private sector, and implementation of the regulatory environment envisaged by the BEST programme combined with efficient administration, MFEZs could provide the best possible business environment within a limited geographical area. Furthermore, if the initial MFEZ proved successful, new strategically placed MFEZs could be established, and MFEZ status and facilities could be extended to other areas of large-scale economic activity.

In 2006, the EPZA developed two types of zones. The first was the standard EPZ, which required companies to export 80 percent of production and the second - the special economic zone (SEZ). In SEZs, companies have no export requirements; they can sell to the local market, and do not have to be in manufacturing. In 2008, the EPZA developed a five-year plan to merge EPZs and SEZs and create economic development zones (EDZs) to incorporate the incentives of both EPZs and SEZs.

Another plan being formulated is one whereby "township" economic zones will be created, mirroring China's approach to industrial organization.

The incentives offered in EPZs are not dependent upon "zone" incentives but rather on the amount of exports. Companies that export most of their output receive more incentives than those servicing the domestic market. In general, the incentives are the same as those given by the TIC, but the infrastructure component could be expected to make the difference in attracting investment. One important difference between the EPZA and the TIC can be found in the area of regulations. The 2006 EPZ Act specifies incentives available to the EPZA to attract investors, whereas the 1997 Investment Act does not. This may mean that TIC is having a more difficult time in assuring investors of incentives, compared to the EPZA.

Existing EPZs have, for the most part, been developed through local, private investors, and a few joint ventures. The developers are responsible

for infrastructure within the zone, with the government having responsibility for providing the necessary connections to infrastructure outside of the zone. Like the Dar-es-Salaam Port and the Mtwara Corridor Development Project, EDZ development is suffering delay because of the lack of a PPP (Public Private Partnership) policy and operating guidelines.

Currently, there are three EPZ sites and one SEZ ready for lease. There are 18 companies operating under EPZ status in industrial parks, and 15 single factory units with EPZ status. Export Processing Zone enterprises are nearly evenly divided between local and foreign companies. The foreign companies are primarily from China, Denmark, India and Japan. The majority of companies are in engineering, followed by textiles, agroprocessing and mineral processing. In addition, there are 14 sites designated for EDZ development. Priority is being given to the zones at the ports of Mtwara and Tanga, at the coastal town of Bagamoyo (50 km north of Dar-es-Salaam), and at the northern, inland town of Arusha. Bagamoyo, with a completed feasibility study and master plan, is farthest along in terms of development, and is the top priority of the EPZA. It is envisioned that this EDZ will encompass 9 000 hectares, which is large when compared to the standard 2 000 hectares set aside for other EDZs. The Bagamoyo EDZ will be one of the first "township" style EDZs, and will include the construction of a new port and airport.

The benefits pertaining to EPZs are offered to export industries but are not dependent on location within a specific geographic zone. Companies benefiting from this scheme are required to export 70 percent of the goods they produce and a minimum of US\$100 000 in order to qualify.⁵⁴ Interestingly, exporters previously established cannot qualify, leaving the EPZ package available only to new export companies.⁵⁵ The EPZ parks can be useful for export processing where there is a dearth of adequate infrastructure in the rest of the country; however, the operations

⁵⁴ 2006 Investment Climate Tanzania, available at <http://www.state.gov/e/eeb/ifd/2006/62039.htm>

⁵⁵ 2006 Investment Climate Tanzania, available at <http://www.state.gov/e/eeb/ifd/2006/62039.htm>

of the Zanzibar EPZ Programme of 2002 have been constrained by the lack of adequate infrastructure within the zone itself.⁵⁶

Best practices show that a stronger public sector input into the functioning of EPZ would have a beneficial impact on the success of these ventures; this includes increasing the public and private stakeholder input and participation, reforming legislation and implementing government agencies to assist with the development of these zones. It should be noted that on a fundamental level, the Tanzanian EPZ structure is in line with international practice through its features, such as regulation by an autonomous public corporation (the National Export Processing Zones Authority - EPZA), and a framework enabling public sector development and management of zones.⁵⁷ Further, the regulatory framework lucidly sets out the general regulations which describe the rules for setting up an EPZ enterprise and describes the management and monitoring of exports within such a programme.⁵⁸ However, certain improvements can be made. Specifically, the United Republic of Tanzania should focus on improving the infrastructure problems such as power and water provision, providing an on-site customs office and management offices.⁵⁹ These factors together with poor security services, limited transport access and high rent charges result in the low occupancy of the EPZ.⁶⁰

⁵⁶ Diagnostic Trade Integration Study - Tanzania, Volume 1, Integrated Framework for Trade-Related Technical Assistance to Least Developed Countries, 2005.

⁵⁷ Diagnostic Trade Integration Study - Tanzania, Volume 1, Integrated Framework for Trade-Related Technical Assistance to Least Developed Countries, 2005.

⁵⁸ Diagnostic Trade Integration Study - Tanzania, Volume 1, Integrated Framework for Trade-Related Technical Assistance to Least Developed Countries, 2005.

⁵⁹ Diagnostic Trade Integration Study - Tanzania, Volume 1, Integrated Framework for Trade-Related Technical Assistance to Least Developed Countries, 2005.

⁶⁰ Diagnostic Trade Integration Study - Tanzania, Volume 1, Integrated Framework for Trade-Related Technical Assistance to Least Developed Countries, 2005.

7. Land policies and related issues in the United Republic of Tanzania

The Land Policy of 1995 and the legislation emanating from that policy, i.e. The Land Act No. 4 of 1999, provides the legal basis for the management of land ownership and user rights and settlement of disputes and related matters for all land other than village land. The Village Land Act of 1999 provides for management of land, settlement of disputes and related matters specifically for village land. The two laws, if effectively implemented, provide a robust framework for safeguarding communal and individual rights to land. Land user rights are entrenched in the fundamental principles of the National Land Policy comprising of, among others, the following:

- All land is public land and is vested in the President as trustee on behalf of all citizens;
- Citizens' rights to land are user rights that are recognized in longstanding occupation or use of land as clarified and secured by the law;
- Equitable distribution and access to land by all citizens;
- Regulation of the amount of land that any one person or corporate body may occupy or use;
- Recognition of the fact that an interest in land has a value and that value is taken into consideration in any transaction affecting that interest;
- Payment of full, fair and prompt compensation to any person whose right of occupancy or recognized long-standing occupation of customary use of land is revoked or interfered with to their detriment by the State based on among other things: the market value of real property and cost of acquiring and getting the subject land and capital expenditure incurred for the development of the subject land;
- Provision of efficient, effective, economic and transparent system of land administration; and

- Facilitation of the operation of a market in land and regulation of the operations of that market to ensure that rural and urban smallholders and pastoralists are not disadvantaged.

The Land Act (No 4 of 1999) generally referred to as the Land Act, provides for three types of land holdings: general land; reserved land and village land. The Land Act empowers the President to transfer any area of land from general land to reserve or village land. The Village Land Act (No 5 of 1999), subsequently referred to as the Village Land Act, defines village land and provides for its management. It also provides for the transfer of village land to general land. There are four categories of land user rights in the United Republic of Tanzania: general land, reserved land, village land and hazardous land.

- **General land** defined as all public land which is not reserved land or village land, whereby public land is all the land of the United Republic of Tanzania based on the premise that all land is held by the President.
- **Reserved land** designated under a series of nine separate chapters including the Forests Ordinance (Cap 389), the National Parks Ordinance (Cap 412), and the Land Acquisition Act, 1967 among others.
- **Village Land** defined as including but not limited to:
 - land within villages registered under the Local Government (District Authorities) (Act No 7 of 1982);
 - land designated as village land under the Land Tenure (Village Settlements) (Act No. 27 of 1965); and
 - land the boundaries of which have been designated as village land under any law or administrative procedures at any time before the Village Land Act (No. 5 of 1999) became operational.
- **Hazardous land** defined as land the development of which is likely to pose a danger to life or lead to the degradation of the environment, contiguous land such as mangrove swamps, land within sixty metres of a river bank or shoreline, or specified land.

- **Derivative Rights** are used to provide for land holdings by citizens or group of citizens or their corporate bodies under rights of occupancy or a derivative right. Non-citizens may only obtain a right of occupancy or derivative right for the purpose of investment as prescribed under the Tanzanian Investment Act, 1997. Land to be designed for investment purposes has to be identified, published in the national gazette and allocated to the TIC which proceeds to create derivative rights to investors. A derivative right, referred to as a residential licence, confers upon licensees the right to occupy land in non-hazardous land, including urban and peri-urban area for a period of time for which the residential licence has been granted.

Effective implementation of the Land Act and Village Land Act is premised on adoption of policies and enactment of secondary legislation to provide guidance for corresponding operations in specific functional areas including: land use planning; surveying and mapping services; land valuation and estate agency services; land acquisition and compensation; land registration; land mortgages and sectional properties.

With the exception of the Land Use Planning Act of 2007 and the Land Acquisition and Compensation Act, also of 2007, most of the remaining secondary policies and legislation were drawn up prior to the adoption of the Land Policy of 1995 and the Land Act/Village Land Act of 1999. Further, the United Republic of Tanzania has never had specific legislation on the estate agency function. Specifically, the existing legislation for surveying and mapping, land valuation and land registration require major reforms for alignment with the objectives of the Land Act and the Village Land Act. Initiatives are already underway to update these statutes.

7.1 The Institutional Framework for Implementation

The institutional framework for implementation comprises of two central ministries: the Ministry of Lands Housing and Human Settlements

Development (MLHSD), responsible for policy formulation and oversight of land administration functions with a network of six zonal offices. Policy implementation is mandated to the Prime Minister's Office, Regional Administration and Local Government, which oversees the operations of Local Government Authorities (LGAs). The LGAs, on their part, coordinate and oversee the operations of village governments and councils who have the legal mandate for land administration and management of village land, where the bulk of land resources are located. In 2010, the number of LGAs was increased from 134 to 168 councils overseeing land management through approximately 14 000 villages. Institutional capacity is a factor of technical capacity embedded in human resources, systems and procedures and equipment and infrastructure for land administration ranging from surveying and mapping facilities to modern ICT-based registries located at the district level.

Available information points to an employment gap of 75 percent of requisite technical staff for land administration in the two ministries. The United Republic of Tanzania has a large pool of potential professional land administrators graduating from Ardhi (Land) University, dedicated to land administration services, with a first year student population of 2 866 in the 2009/10 academic year compared to 2 221 in the 2005/06 academic year ⁶¹. The presence of this large pool has not translated into higher land administration capacity due to limitations in recruitment and limited public-private partnerships in this area. These shortcomings reinforce the implementation weaknesses stemming from rent-seeking tendencies reinforced by lack of transparency in an environment where the central land registry still operates largely as a paper-based system.

8. Recent trends in large-scale land investment in the United Republic of Tanzania

The available information shows that most land acquisition for agricultural investments in Tanzania is largely still at the request stage, for which approval may not have been granted as yet. According to one source, in 2009, a total of 4 million hectares were requested by foreign investors. The largest requests emanated from SEKAB which had reportedly requested a large area in Bagamoyo (that could reach up to 400 000 ha) and 500 000 hectares in Rufiji, for sugar cane production. Sulle and Nelson (2009) argue that a British energy company, the CAMS Group had also acquired 45 000 hectares for sweet sorghum production while another British company, Sun Biofuels, acquired over 8 000 hectares in Kisarawe.⁶² Although these figures are large, there is evidence that only a small share of the requested area was eventually acquired.

However, there is an increasing trend of acquisition of land by small and medium farmers in Tanzania, which is apparent in the data on farms that were surveyed and registered during the 2004 to 2010 period. Data published through the Minister for Lands, Housing and Human Settlement Development budget speech for 2009/2010 shows that a total of 623 farms out of a target of 800 farms were registered during the period July 2008 to June 2009. Further, the Ministry was targeting to register a total of 1 000 farms between July 2009 and June 2010. Sixty two percent of the 623 farms registered in 2008/2009 – equivalent to 386 – were located in three regions, i.e. the Coast region (174), the Tanga region (125) and the Morogoro region (87) that happen to be the favourite destinations of large TNC agricultural investors because of the prime arable agricultural land, good climate, reliable rainfall patterns and easy access to surface water resources for irrigation purposes

⁶¹ Ministry of Finance and Economy, United Republic of Tanzania; Economic Survey for 2006, 2007, 2008 and 2009.

⁶² Sulle, E. and F. Nelson F. (2009), *Biofuels, land access and rural livelihoods in Tanzania*, in Theting & Brekke, Land Investments or Land Grab? A critical view from the United Republic of Tanzania and Mozambique.

TABLE 5
Status of recent investments and business models

Company	Location District	Crop	Land Requested (ha)	Previous Land Status	Status	Business Model	Notes
Sekab BT (Sweden)	Bagamoya	sugarcane	24 200	govt ranch/TIC land	granted by TIC de-	90% estate; 10% outgrowers or	Only a small portion to the land is under cultivation
	Rufiji	sugarcane	250-500 '(000)	village land	relative right in progress land acquisition progress	block farming	deal is questionable due to the withdrawal of financial support from Scandinavian pension fund on grounds that the deal risk displacing local communities
FELISA (Belgium)	Kigoma 1	Oil palm	10 000	TIC land bank	land acquisition in progress under negotiation	Hybrid estate & outgrowers	
	Kigoma 2			village land			
Sun Biofeuls	Kisarawe	Jatropha	50 000	village land 12 villages	transferred from village to general land	estate and possibly outgrower	
Diligent (Netherlands)	Arusha	Jatropha	none	n/a	n/a	contract farming	
BioMassive AB (Sweden)	Lindi	Jatropha		village land	66 year leasehold agreement with Lindi district council		Company has avoided payment of land citing that contract stipulates that it can only pay for acreage cultivated not total acquired. The company is still trying to raise funds for the project.
BioShape (Netherlands)	Kilwa	Jatropha		village land	50 year lease signed between company and villagers		contract area is one-third of surface area of the district
KRC (South Korea)	Rufiji	Agro-processing	325 117		Joint venture b/w KRC and Tanzania govt thru Rufiji Basin Development Authority		half of the land will be developed and given to the local farmers and the rest will be used by KRC to process cooking oil wine and starch include plans for a food processing centre and technology transfer (irrigation)
AgriSol (USA)	Mpanda & Kigoma			refugee camps Katumba - 80 317 ha Mishamo - 219 800 ha Lgufu - 25 000ha	MOU signed b/w Mpanda district government and AgriSol		75% US and 25% Tanzanian - held by former senior cabinet minister. Deal does not conform to Tanzanian law on shareholding can be equal to more but not less

Source: : Compiled by authors from various sources

where necessary. No data was given regarding the average acreage of farms involved. Table 5 presents the status of selected recent investment, their nature and the proposed type of business models.

The United Republic of Tanzania is facing a rising incidence of conflicts over land and water rights between medium commercial farmers and smallholder subsistence farmers and between farmers and traditional pastoralists as well as between pastoralists and tourism sector investors. The migration of pastoralists to new pasture lands in regions that are still characterized by regular long rainy periods also highlight the issue of changing patterns in informal land use that is already a source of conflict and clashes. Conflict over water rights amongst smallholder farmers, between smallholders and commercial farmers and between smallholders and pastoralists has become increasingly common. The extent of the problem is apparent in difficulties on the part of the government regarding the allocation of water rights between competing national objectives, in particular irrigation farming, *vis-à-vis* power generation.

At the national level, the authorities have discerned the sensitivities associated with land ownership and user rights and the need for more careful responses to requests for land for agricultural investment. In January 2011, the Government of the United Republic of Tanzania issued directives on handling of requests for allocation of land for investment in biofuel production. These guidelines address the issues of protecting the land rights of local communities while taking advantage of opportunities for new linkages with the global market. They provide a comprehensive package for acceptable agricultural investment in biofuel production. Among other things, the package limits large-scale land acquisition to a maximum of 20 000 hectares, and includes mandatory provision for outgrower schemes, local processing and reservation of 25 percent of allocated land for production of food crops in response to the food security threat.

The unfolding experience from the ongoing preparations for implementation of SAGCOT (Southern Agricultural Growth Corridor of

Tanzania) also provides a useful basis for leaders to understand the issues involved in current international interest in agricultural investments and the consequences of land acquisition generally. The statements emanating from political circles and the responses from the international community reveal a gap in understanding that is being bridged in favour of the adoption of existing best practices, focusing on inclusion of the interests of hitherto voiceless rural communities.

The perspective emerging from the official "Investors Guide for SAGCOT" limits the area of land involved to 350 000 hectares over a period of 20 years and involving an investment of US\$ 2.5 billion. Indeed international literature on farm sizes shows that large farms worldwide barely exceed 50 000 acres per farm.⁶³

" ... Mwanza – In May 2010, cotton stakeholders in Tanzania resolved to implement contract farming throughout the country's western cotton growing area (WCGA), starting this season... the farming model to be employed in Tanzania entails formation of farmer-business groups (FBGs) comprising between 50 and 90 smallholders the number of FBGs that have joined contract farming between 2008 and 2011 has increased by 353 percent from 47 groups, with 2 241 farmers in 2008 to the current 587 groups with 37 951 farmers". (The Citizen on Sunday, Special Report, 16 January 2011).

Results from piloting of the Mwanza cotton project show that yields per acre have gone up from 341 kg per acre to 487 kgs per acre in pilot areas. Consequently, project stakeholders including the Tanzania Cotton Marketing Board with funding from GATSBY, with TECHNOSERVE providing technical services, have agreed to scale up production to include 30 ginneries serving as processors/marketers. The ginneries will interact with smallholders through Farmers Business Groups (FBGs), comprising between

⁶³ <http://thegulfblog.com/2010/04/23/largest-dairy-farm-in-world>

50 and 90 farmers under contract farming arrangements. The ginneries will provide access to upstream production inputs including pesticides and fertilizers to be recovered from sales. The scheme's structure links farmers to specific ginneries to avoid side-selling by farmers. The role of ginneries is underwritten by a Cotton Development Trust Fund (CDTF) supported by the Tanzania Gatsby Trust and the Tanzania Cotton Board.

The earlier acquisition or proposals for acquisition of land in the United Republic of Tanzania were problem prone, akin to most others initiated in other African countries. However, for very practical reasons, many of those proposals were not carried through and have eventually fallen apart as awareness rises inside and outside the country, and there are concerted movements against these initiatives. Table 5 above presents a selection of cases of significant land requests in Tanzania over the past five years.

9. Issues and implications for large-scale land investments in the United Republic of Tanzania

The Tanzania Investment Centre (TIC) plays a hands-on role in facilitating land access, and formal approval for the investment is needed from the TIC (financial viability), the Ministry of Agriculture (agricultural viability), the Ministry of Lands and Housing Development (land registration) and the Ministry of Environment (environmental impact assessment). Coordination and communication among government agencies tasked with different aspects of the investment process is poor, hampered in part by government departments' preference to report positive outcomes only, without sharing problems and setbacks.

The United Republic of Tanzania has to undertake new and/or strengthen ongoing reforms of its investment climate. Table 6 presents a clear picture of the ease of doing business in the United Republic of Tanzania and points the way in areas where more attention is needed.

On the investor side, private investors have the advantage of being able to act as a single legal entity with a cohesive set of values. Investors can only lease and use 'general land', not 'village land'. Land can be transferred from 'village' to 'general' status with the permission of the local community. Prospective investors start at the national level, with the Tanzania Investment Centre, the one-stop-shop that facilitates investment in the United Republic of Tanzania, where they are required to demonstrate the financial viability of the proposed project in order to get a Certificate of Incentives. From here they go to the district level, as advised and facilitated by the TIC. In the simple case they take up previously identified and surveyed land, registered with the TIC "land bank", but if all or part of the proposed land area is still 'village land', negotiations with local communities are necessary. The investor must have the request for land transfer approved in turn by the village council (senior village representatives), the village assembly (comprising all adult residents of a village) and the district council land committee. In principle the land transfer must also be vetted by the Ministry of Lands, Housing and Human Settlements Development.

Many companies have shown interest in acquiring lands that are underdeveloped 'general' lands. For instance, a Swedish company requested 400 000 hectares for sugarcane production in the Wami River basin in Bagamoyo District. Evidence suggests that, if the deal went ahead, about 1 000 small-scale rice farmers on these lands would need to move, and would not be eligible for compensation as the land is 'general' not 'village' land. The process of negotiation over village land tends to be slow, in large part because of the lack of precedent and guidance. In one case, for instance, the investor FELISA completed the process, securing approval for 350 hectares from two village assemblies, but later received a message from one of the villages withdrawing the offer as the land had apparently already been allocated to another individual. Intervention by local authorities resolved the issue in FELISA's favour, and arrangements have been made for community infrastructure investment and an oil palm outgrowing scheme, which have

TABLE 6
Ease of doing business in the United Republic of Tanzania

	DB 2012 Rank	DB 2011 Rank	Change in Rank
Starting a Business	123	122	↓ -1
Dealing with Construction Permits	176	177	↑ 1
Getting Electricity	78	80	↑ 2
Registering Property	158	155	↓ -3
Getting Credit	98	96	↓ -2
Protecting Investors	97	93	↓ -4
Paying Taxes	129	123	↓ -6
Trading Across Borders	92	115	↑ 23
Enforcing Contracts	36	33	↓ -3
Resolving Insolvency	122	120	↓ -2

Source: <http://www.doingbusiness.org/>

convinced villagers of the value of the investment. However, there are no formal documents to bind either party to these agreements.

There is a legal requirement that villagers be compensated fairly by the government when village land is transferred to general land. In practice however, investors themselves tend to pay compensation directly to the villagers. There are substantial differences in opinion and confusion over the amount of compensation and the entitled beneficiaries. Given the lack of an active land market in the United Republic of Tanzania, market-based per hectare rates have little meaning. Some companies compensate for the value of the resources on the land, such as trees and grazing, rather than the land per se. Access to water resources is of particular

concern to both villagers and investors, as well as other competing interests (downstream users, conservation, etc.), and is a source of conflict in some instances – conflict that is difficult to resolve in the absence of clear regulations or guidelines from the government on sustainable levels of water abstraction.

10. Existing business models for large-scale land investment

Most documented large-scale land investment in Table 5 above is based on a single simple model of concentrated production within a single plantation unit, operated for maximum efficiency. But an emerging trend among governments is that investors contribute to local development not only through job provision, environmental protection and social investments, but also through direct involvement of local farmers and small-scale businesses in the supply chain as in the case of KRS from the Table. Apart from considerations linked to the longstanding farm size efficiency debate, the choice of production models may have major implications for the distribution of project benefits. Maximizing local benefits may require developing collaborative business models, from properly negotiated contract farming with small-scale producers through to joint ventures (shared equity) with legally recognized community organizations.

The Government of the United Republic of Tanzania is taking first steps to promote the involvement of local investors and smallholders. The government is developing standards for biofuels investments that include provisions for the involvement of local small-scale producers in some variant model as outgrowers, contract or mixed schemes. Most outgrower schemes and other inclusive approaches to production are, however, voluntary rather than a response to government regulation. Investors seek to create more robust business models and to preempt local conflict and international criticism through building up local participation from the start. Examples of mixed business models in the United Republic of Tanzania include that of the bioethanol company SEKAB, which proposed

a gradual transition from a single ownership plantation to franchised block-farming for sugarcane for 500 000 hectares in Rufiji, United Republic of Tanzania. The biodiesel company Diligent is sourcing jatropa oil entirely from a network of small-scale farmers, under loose contractual terms. But the vast majority of documented projects continue to be run as large plantations based on concessions or leases. As large areas of land are commonly offered on very favourable terms, an incentive is created for establishing company-managed plantations rather than promoting contract farming approaches. Even “local content” provisions requiring prioritization of the local workforce in recruitment, common in extractive industry contracts, appear rare for agriculture investments. There is enormous scope here for governments to develop systems of incentives to promote more inclusive business models among large-scale investors.

Market outlets for agricultural produce are another key issue. The production of crops for export to the investor’s home country is a key driver in many recent land acquisitions, particularly those led by foreign governments concerned about their food security. Several host countries are at present highly dependent on food imports, and in some cases recipients of food aid. The United Republic of Tanzania still imposes export bans on key food items; how this will play out with these investments is an area to watch. While these investments have been widely criticized in national and international media, a counterargument is that agricultural investment will bring yield increases that will benefit food security in the host country as well as the investor country. Reconciling food security in both home and host countries requires careful policy responses. This issue deserves to be dealt with in contracts, yet most of the current investment contracts in the United Republic of Tanzania are silent on the matter.

The extent to which national legal frameworks protect local land claims varies among countries, but is often limited. Local people may enjoy use rights over state land but land titles, whether individual or collective, are extremely rare in rural areas. Overall, the current wave of FDI flows and

land acquisitions is taking place in contexts where many people have only insecure land rights – which makes them vulnerable to dispossession. However, in the case of Tanzania’s Land Act 1999 and Village Land Act 1999, steps have been taken to strengthen the protection of local land rights, including customary rights, through initiatives for village land registration, regardless of the fact that all land is either vested with the state in trust for the nation or state owned.

But even where legal protection may be conditioned to “productive use” – for instance in the United Republic of Tanzania, lacking a clear definition of what constitutes “productive use” and given the ensuing broad administrative discretion, these requirements may open the door to abuse, and undermine the security of local land rights. This is particularly so for those groups whose resource use is often not considered as “productive enough”, as is often the case in pastoral communities or even in cases of village forests that serve as a source of firewood and traditional medicine for agricultural communities.

11. Impact of FDI on agriculture in the United Republic of Tanzania

Recent data or studies on the impact of FDI on agriculture and food security in the United Republic of Tanzania are difficult to assess, especially as the trend in large-scale land acquisition is too recent for its full effects to be observed. However, the existing evidence suggests that impact of FDI on the United Republic of Tanzania’s economy is very noticeable in the industries in which FDI is concentrated. According to the Tanzania Board of Trade, in the case of mining, FDI has served as an engine of growth and has helped to increase gold exports, which amounted to US\$703.7 million in 2006, contributing about 42 percent of the total export value for the country. Gold exports remain dominant in total non-traditional exports, followed by manufactured goods and fish and fish products. The increase of FDI inflow has also contributed to the modernization of the various industries. Foreign investors have restructured

privatized enterprises, thus boosting their competitiveness and contributing to the transfer of technology and skills.

However, although the impact is strongest in the industries in which FDI is concentrated, it has mixed implications for the entire economy. The scale of this impact is still small and a number of desired results are not occurring (such as linkages to the local economy thus impacting poverty reduction, or strengthening local science and technology capacities). In most cases, FDI currently has little impact on the employment situation, as it is directed towards capital-intensive sectors. Likewise, there is considerable public concern that impact on government revenue generation has remained minimal and measures have been initiated to address this concern, through negotiations with mining companies for higher royalties and public share ownership in publicly traded companies. One of the outcomes of these initiatives is the cross-listing of African Barick Gold (ABG) at the Dar-es-Salaam Stock Exchange (ABG is formally listed at the London Stock Exchange). Thus, after initial successes with FDI, the challenge for the United Republic of Tanzania is now to push FDI towards new frontiers, such as agriculture, which is important in the fight against poverty.

The Tanzanian economy is constrained by low productivity, inadequate physical and economic infrastructures, dependence on the export of primary goods with very limited value addition through manufacturing and low product standards and standardization. These are key issues for reaping the full benefits from FDI. In its Vision 2025, the government has placed emphasis on the industrial sector to play the central role of transforming the economy from a low productivity agriculture to a semi-industrialized one led by modernized and highly productive agricultural activities, which are effectively integrated and buttressed by supportive industrial and service activities which are in turn, laid down in the Kilimo Kwanza framework. However, given the limited financial capabilities of the government, it is hoped that FDI will play a central role in this direction.

Tanzanian agriculture is dominated by smallholder farmers cultivating an average of

0.5- 2 hectares. Productivity has been especially low for smallholders compared to agricultural undertakings by estates or large commercial farms, which have been able to attract considerable FDI. Records from TIC show that more than 90 percent of FDI in agriculture went to the crop sub-sectors (e.g. sugarcane, jatropha, oil palm and sisal), whose smallholder farmers are well organized and sufficiently integrated to support foreign investments.

Although several factors (age, origin of the farmer, educational level, and farm area) have been observed to affect the technical efficiency of smallholders in the United Republic of Tanzania, the integration of smallholders with large enterprises was a major factor in some investments (e.g. Mtibwa Sugar Estate scheme). Furthermore, smallholders who are close to a processing plant or factory have been found to be more efficient compared to those who were farther away. This factor is closely associated with high transportation costs to smallholder farmers far from the factory, as in some cases, the large firms provide transportation for farmers close to the factory, while others are forced to use private transportation.

Appropriate reforms targeting the regulatory environment have been key factors influencing the attraction and harnessing of benefits of FDI in the United Republic of Tanzania. With respect to the regulation of FDI, the general trend over the past decade has been for the gradual liberalization of rules governing foreign investors and their investments. Furthermore, privatization programmes from the early 1990s have expanded the opportunities for foreign investors. For example, the intent behind the ongoing land reforms is to facilitate the use of land as collateral in bank borrowing and to spur private investment in agriculture. Investment promotion has concurrently become an important policy tool for attracting FDI. Policies aimed at attracting FDI have ranged from relatively passive and general promotion schemes to much more aggressive targeting of foreign investors combined with the use of investment incentives.

Despite these efforts and the recent growth of the sector, together with observed productivity and efficiency increasing capabilities, FDI flow into

the agricultural sector has remained very small in the United Republic of Tanzania (Table 1). It is widely accepted that investments in agricultural and livestock projects are most efficient in creating employment and addressing poverty related issues. However, poor infrastructure combined with high energy and transportation costs, has rendered the United Republic of Tanzania's commodities non-competitive. A low level of domestic entrepreneurship coupled with poor quality products has resulted in loss of market share. Limited financial capital and an unfavourable regulatory environment deter the growth of medium and large-scale agricultural production, resulting in high dependency on poor quality, high cost products from small-scale producers.

On the other hand as the Tanzanian agricultural sector continues to depend on smallholder producers, the characteristics and institutional setup of smallholders will have an impact on the performance of the sector and thus its ability to attract FDI. Tanzanian smallholder farmers have limited education and experience, are frequently exposed to shock and have to deal with weak institutional arrangements for production. This has led to only slight increases in agricultural productivity and insufficient improvement in the quality of production. This is especially true when the productivity of smallholders is compared to that of estates or large commercial farms or even comparative smallholder production in other countries in the East African region. As discussed above, this difference in productivity led to more than 90 percent of FDI in agriculture being directed to the crop subsectors (e.g. sugarcane, sisal) whose smallholder farmers have proved sufficiently well organized to support the foreign investments. These findings justify the consideration of alternative institutional arrangements for smallholder farmers that will attract more FDI inflow and improve smallholder productivity.

12. Conclusions and recommendations

The United Republic of Tanzania's performance in the area of agricultural investments over the last

decade is one with a mixed record. The earliest deals reflect decisions based on the assumption that investors would somehow link local smallholders into their investments and the latter would benefit automatically through employment, access to technology and market linkages. There was no conscious effort to determine how this would happen or to provide for it in contracts between the government and the investors. Further, the involvement of local communities in the deals was primarily limited to superficial consultations involving a lot of verbal promises with few obligatory commitments.

Today there is a much clearer understanding of the pitfalls involved, as evidenced in the initiatives on the drawing-board including the Biofuels Guidelines, the SAGCOT project and other interventions taking place under the umbrella of the Agricultural Sector Development Programme. It is in this context that it is felt that specific policy recommendations responding to the findings from the literature review can add value to the government's initiative to respond positively to emerging opportunities while mitigating against the inherent risks.

Findings and recommendations are drawn from the following issues: access to land and security of tenure; food security concerns; access to water rights and rights of way; business environment reforms; strategic development of infrastructure services; adoption of first best government policy intervention instruments; adoption of the principles of responsible agricultural investment and related business models; and effective M & E (monitoring and evaluation).

Food Security: the United Republic of Tanzania's challenge in addressing its food insecurity problems revolves around access to food – whether produced within the country or imported from neighbouring countries at times of need. The United Republic of Tanzania can meet its own food security requirements, even in times of drought and shortages. However, this is subject to improving accessibility to surplus production in the rich agricultural regions, most of which lie in the Southern Highlands, through investment in transport, rural infrastructure including post-

harvesting facilities, and deeper integration of domestic and regional markets. Higher productivity could easily double grain production, if the appropriate policy intervention instruments were in place. For instance, a large programme for subsidizing food production through the delivery of subsidized fertilizer, based on voucher systems currently in operation is proving very difficult to sustain due to moral hazard problems. One question that comes to mind is whether the use of instruments like support for contract farming could prove a better alternative. Access to markets through improved transportation and removal of intra-district and export bans are also necessary to motivate farmers to invest more in their land and raise the level of surplus production.

The policy recommendation on this issue is to implement policy instruments to stimulate higher productivity by smallholder farmers, and to remove marketing bans. Improved transportation systems while lowering transport costs by reintroducing railway transport would also increase farmers' margins and motivate higher investment in smallholder agriculture.

Land Administration and Security of Tenure:

the United Republic of Tanzania has an excellent land policy and equally good instruments for implementation in the Land Act 1999 and the Village Land Act 1999. Their effectiveness lies in actual implementation and in the efficacy of secondary implementation instruments, including secondary legislation and regulations in the areas of land use planning, surveying and mapping, land valuation and estate agency services, land acquisition and compensation, and land-based mortgages. The basic source of information on communal landholding patterns is embedded in the Village Land Act. This information is available in real terms for villages that have undertaken participatory land-use planning and have been issued with certificates of village land (CVLs).

The challenge is to extend the land use planning process from approximately 1 000 villages that have received this service to more than 10 000 villages that are on the waiting list and rolling out the service of land surveying,

mapping and adjudication that is necessary to create a national land registry (which will guarantee security of tenure for village communities and smallholders). It is, therefore, recommended to expedite the rolling out of village land planning and certification as a means of securing tenure for land holding by local communities which will also significantly improve security of tenure for individuals within the villages.

Access to Water Rights and Rights of Way:

Parallel to security of tenure is the issue of access to water rights in a world where consciousness of water shortages has become acute due to the climate change phenomenon. Further, rite of passage has become an issue in the rural setting, due to the tendency for large farmers to create a buffer between their land holding and the surrounding villages, leading to closure of public routes traversing through a large farm. Diversion of existing public routes and limitations to access to water – resulting from isolation of land transferred to large investors – tend to be a major issue in direct relation to the size of the land being acquired. Deals already concluded to-date ignore the future of local communities' access to water rights and, in some cases, this has been a source of conflict and tension between commercial farmers and local communities.

It is questionable whether such deals are sustainable in the long term without addressing this problem. It is recommended that future deals consider making provisions for acceptable alternatives for rights of way and equitable sharing in access to water rights between local communities and large investors. Further restriction of land-leasing contracts to shorter durations – say 33 years rather than 99 – would create the flexibility necessary to renegotiate contracts in the medium term, while extension of the biofuel guidelines to agricultural commodities and food products can redress the issue of speculative land acquisition. Finally, future contracts should seek to balance access to water rights where this becomes necessary and ensure that agricultural investors are obliged to pay for the water rights granted to them.

Business Environment and Investment

Climate: One of the major challenges facing the United Republic of Tanzania in the course of bringing about economic transformation is the state of the business environment and the wider investment climate. With respect to the business environment, it is imperative to enhance policy and regulatory reforms that are already underway, starting with prioritization of sectors that have a major impact on the cost of doing business: registration to support intra-regional trade; land registration for improved security of tenure and use of land as a business asset; trade facilitation to promote regional market integration; taxation regimes and dispute resolutions. An even more daunting challenge is that of improving the delivery of infrastructure-based services, particularly in the transport, energy and water sectors, as well as the development of critical productive infrastructure in the agricultural and industrial sectors.

It is recommended to strengthen and expedite regulatory reforms and hasten the mobilization of private sector resources for development and management of infrastructure for the delivery of social and economic services through the PPP (public private partnership) approach. Identification of clear priorities in terms of specific sectors that provide a major initial contribution to economic transformation should be the primary yardstick in implementation. It is particularly critical to bridge major gaps between the supply and demand for power and transportation services that have become the binding constraints against private sector efficiency and the achievement of more rapid growth. The prerogative is to ensure the reliability and affordability of these services.

Agricultural and Industrial Infrastructure

Development: Raising productivity and achieving sufficiency in food security as well as harnessing the opportunities emerging from increasing food demand and limited arable land resources require major investments in agricultural infrastructure such as irrigation infrastructure, as well as the development of industrial infrastructure such as industrial parks, special economic zones and export processing zones. Prioritization of

investment in soft infrastructure, i.e. ICT and financial services, is critical for achieving more rapid economic growth. Current initiatives for improving access to finance and development of ICT infrastructure in key government institutions such as civil registries to support efficient services for private sector development should be enhanced and expedited.

Adoption of Relevant Areas in the Draft

RAI Principles: The principles for responsible agricultural investment, business models and funding instruments provide a best practices framework for negotiation and conclusion of land-lease contracts as an alternative tool for acquisition of land that does not lead to dispossession on the part of local communities and individuals. Consequently it is recommended to undertake the following measures in handling agricultural investments:

- i. Building up capacities for adoption of the existing business models and financing instruments as the primary tools for handling analysis, and development of decision-making options for consideration of requests and proposals for land-leasing contracts for agricultural investors.
- ii. Extend application of the biofuel guidelines to cover crop production and address the issue of water rights as well as guarantees for rights-of-way and be backed by legal mandate. Ensuring equitable access to water rights in the future is one of the key factors for social sustainability.

Effective Implementation, Monitoring and Evaluation of Programmes and Projects:

The failure of policy implementation in many sub-Saharan African countries including the United Republic of Tanzania is based largely on the poor track record of effective monitoring and performance evaluation. Even where this does occur, there is a tendency, amongst officialdom, to hide real developments in the field, starting from the planning stage through failure to establish realistic benchmarks. Africa has also been unwilling to adopt best practices emerging

from other economies as a norm, preferring in many instances homebaked policy instruments that are known to suffer from failure to create change. Further, SSA governments have to adopt best practices in the development of economic strategies and strategic plans for their implementation. There is little meaning in redesigning the wheel as an excuse for adopting sub-standard policy measures that compound existing problems.

The agricultural sector in the United Republic of Tanzania offers potential investors opportunities not only in general commodity trading, but also investment in technology for supporting sectors such as irrigation works and refrigerated facilities; farm implements and agricultural inputs; fishing equipment and processing plants, and agro-processing businesses. As well as its huge potential in terms of national endowments, the government has attempted to increase investments mainly through fiscal incentives. The United Republic of Tanzania also has other features attractive to foreign investors, such as potential access to regional markets like those under EAC and COMESA (Common Market for Eastern and Southern Africa) arrangements.

While much of the regulatory framework impacting on the desirability to invest in the United Republic of Tanzania was reformed with the climate of liberalization and privatization in the 1990s, many of the regulations are now antiquated and require revision.

Many legislative revisions have been in the pipeline for a considerable period, but have yet to come into fruition. The government is in the process of re-examining its trade and investment legislation with mechanisms to involve

stakeholders in the discussions on draft bills. These reform initiatives need to be speeded up and deepened.

The taxation regime is one example of a significant constraint to production with multiple duties in place at local and national level. It is recommended that the system is harmonized across the different crops and commodities to prevent price distortion, with a lowering of taxes and spreading of the tax base to remove the disincentives to production.

As well as enhancing and strengthening its existing attractive investment features, the United Republic of Tanzania should also work towards developing its weaker aspects. Despite its large human resource pool, the dearth of skilled workers and those with adequate technical capacity represents an area in which the government can promote private sector participation for capacity building and training schemes. The emphasis on technology transfer could be shifted somewhat to the provision of information on new technologies, and training the relevant stakeholders on their use, costs and appropriateness. Another problematic factor, particularly as regards agribusiness, is its infrastructure. Private sector (including foreign) participation is particularly useful in this regard, for example, in the development of its road development strategy. Thus, while the United Republic of Tanzania is strategically placed to continue with its success in attracting FDI into the country, many areas of the agricultural and allied sectors are in need of reform, revision and improvement in order to draw in a greater percentage of that same FDI to the agricultural sector specifically.

ANNEX

Investment opportunities in the crop sector

Crops	Investment opportunity
Coffee	Opening up new, large-scale coffee estates in Ruvuma, Mbeya, Iringa, Kigoma and Arusha regions. Creation of coffee processing plants.
Cotton	Establishment of large-scale cotton production farms, particularly in Morogoro, Coast, Singida, Tanga and Iringa regions; Establishment of spinning and textile industries.
Tobacco	Establishment of large scale woodlots for tobacco curing in Mbeya, Singida, Shinyanga, Rukwa, and Tabora regions; Purchase of tobacco and construction of processing factories.
Sisal	Establishment of large-scale sisal plantations in Dodoma, Shinyanga, Singida Kigoma, Tanga, Coast and Morogoro regions; Investment in new plantations and joint venture in the privatized sisal estates; Sisal spinning and weaving; Production of by-products: alcohol, particle boards, biogas and electricity, citric acid, pharmaceuticals, animal feeds, organic fertilizer, handicrafts. Sisal mattresses and padding for furniture and car seats; Sisal polishing cloth – a preferred material for polishing metals in industrial settings; Sisal composites in automotive, boats, furniture, etc. to replace fibre-glass. Establishment of pulp factories.
Tea	Establishment of large-scale tea production through opening up new plantations in Mbeya, Iringa, Mara and Tanga regions; Establishment of tea processing factories.
Pyrethrum	Establishment of contract and large-scale farming of pyrethrum in high altitude regions of Iringa, Mbeya and Arusha; Establishment of Pyrethrum crude extracts refineries.
Cashew nut	Cashew processing industries. Investment in large-scale cashew production; Investment in cashew marketing.
Sugar	Establishment of new sugarcane estates in Coast, Ruvuma, Kagera, Mara, Mbeya and Kigoma regions; Sugar-cane processing factories.
Spices	Establishment of spice production, processing and marketing infrastructure in the coastal and high altitude areas of Tanga, Coast, Mtwara, Lindi, Morogoro, Mbeya, Kilimanjaro, Kagera and Kigoma regions; Establishment of spice processing and marketing infrastructure.
Floriculture	Opening up flower farms in Tanga-Usambara, Iringa, Mbeya, Kagera, Arusha, Kilimanjaro and Morogoro regions; Investing in lowland flower farming in Tanga, Dar-es-Salaam, Mtwara and Lindi regions; Flower seed production in Arusha, Mbeya, Iringa and Kilimanjaro regions.
Fruit & Vegetables	Opening up fruit and vegetable plantations in the potential areas for horticultural crops, Arusha, Kilimanjaro, Tanga, Morogoro, Dar-es-Salaam, Dodoma, Iringa, Mbeya, Mwanza and Kagera. Processing and canning for domestic and export markets.
Bananas	Expansion of banana production in Kagera, Kilimanjaro, Morogoro and Mbeya regions. Investment in production and marketing of banana seedlings like Williams, Lacatan, Pazz, Chinese, Cavendish, Grandmine
Oilseed	(Sesame, Sunflower, Palm oil and Soya); Production and Processing Sectors.
Other crops	(cassava, Irish potatoes, sorghum, millet and various legumes) Production in large quantities for food and animal feed for domestic and export markets.

Source: A summary of investment opportunities available in Tanzania's agricultural sector, Ministry of Agriculture and Food Security, available at <http://www.agriculture.go.tz/>

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Thailand:

Foreign investment and agricultural development in Thailand¹



1. Introduction

Foreign direct investment (FDI) has played a pivotal role in the economic development of Thailand. In Thailand, FDI has grown rapidly with a clear shift in investment flows from import-substitution towards export-orientation, concentrating mainly in the manufacturing sector. Empirical studies have been largely concentrated on the role of FDI in this sector. Although Thailand is an agriculture-based economy and foreign investment in agricultural production has existed for a long time, the value of international investment in the agricultural sector is very small and the number of studies investigating the role of FDI in this sector is limited (Netayarak, 2008; Sattaphon, 2006). This chapter has two main objectives: first, to analyse the extent, nature and impact of international investment in the agricultural sector, and second, to analyse the policies, legislation and institutions affecting the international investment.

This chapter is divided into six sections including this introduction. The second section briefly reviews the background of Thai agriculture and explains the definitions of FDI statistics employed in this study. The third section describes policies, legislations and institutions affecting FDI in Thailand. The fourth section covers the analysis of FDI in Thai agriculture, with an emphasis on the extent and nature of FDI. A fifth section provides an analysis of the impacts of FDI with emphasis on the agricultural sector. A final section offers conclusions and policy recommendations.

¹ This chapter is based on an original research report produced for FAO by Waleerat Suphannachart, Faculty of Economics, Kasetsart University and Nipawan Thirawat, Independent Researcher.

2. Background of Thai agriculture and FDI data in Thailand

2.1 Overview of agricultural development in Thailand

Thailand has always had an agriculture-based economy in which the agricultural sector has played a crucial role in overall economic development. The agricultural sector was the economy's "engine of growth" in the 1960s and 1970s.² This leading role was superseded by the manufacturing sector in the 1980s. Since then the agricultural shares in overall GDP have declined. The decline in agricultural growth was in line with structural change toward an industrialized economy as well as many external factors, particularly a worldwide depression in major agricultural product prices (Poapongsakorn, 2006). Despite the declining shares of agricultural GDP, the agricultural sector continues to contribute to overall economic development by being an important source of rural income and export earnings.³ It also provides raw materials for agribusiness and ensures household food security. The agricultural sector still managed to grow at an average growth rate of about 3 percent per year over the entire period of 1970-2008.

Within the agricultural sector, crop production has long occupied the largest share of total agricultural output, followed by fisheries,

² The main driving force was attributable to expansion of the land frontier and heavy public investment in roads and irrigation (Poapongsakorn, 2006).

³ Thailand is a major net agricultural exporter, particularly of rice, rubber, cassava, sugar and poultry products (Warr, 2008). The majority of poor people in Thailand reside in rural areas and are directly involved in agricultural production (Warr, 2004).

livestock, forestry and agricultural services, respectively. However, in terms of the average annual growth rate, livestock GDP growth is largest during 1970–2008, followed by fisheries and crops. The expansion in livestock is mostly attributed to the higher demand for poultry exports, particularly from European markets (Poapongsakorn, 2006). Crop production has been dominated by staple crops such as rice, rubber, cassava, sugar cane, maize and kenaf.

Nonetheless, there has been a changing production structure in Thai agriculture in tandem with the changing comparative advantage and changing demand pattern toward high value-added and safe products. There has been a shift from traditional crops such as rice, maize and cassava to high value crops, particularly in horticulture (Poapongsakorn, 2006). Agricultural commodities and exports have also been diversified from major crops to processed agricultural products, such as frozen chicken, shrimp and canned pineapple, and high value products such as coffee, pepper, cut flowers, orchids, fruits and vegetables. While rice is still the dominant crop occupying the majority of land area and labour force, its export value has ranked after rubber since the 1990s, and after shrimp in the years 1991–1995 and 2001–2002. On average, the food processing sector⁴ had greater growth rates than the agricultural sector. The food processing sector performed very well in 1986–1990, achieving the highest rate of growth of 8.95 percent while the agricultural sector's growth rate was only 3.17 percent. After that period, the growth rates of both sectors fell gradually over time. All in all, both sectors

continued to be robust and remain among Thailand's most competitive and major sectors.

A large proportion of Thailand's food exports are processed foods, accounting for about 20 percent of total food exports. (6.45 percent in 2007 and 19.16 percent in 2008). Processed food exports, including canned seafood and processed fruits and vegetables, comprise critical components of Thailand's export structure. Moreover, higher value-adding products—like ready-to-eat food—are the fastest growing, even though they involve more complicated production processes than the others. This indicates the competitive advantage of Thailand's food processing industry in terms of its production capability and competitiveness. Thailand has achieved a significant reputation in exporting processed food, especially in the categories of processed tuna products (47 percent) and shrimp (20 percent of global market share, world's largest exporter in 2008), processed pineapple, world's largest exporter in 2008 and processed chicken products (25 percent of global market share)—world's largest exporter in 2008.

The sector is considered as reflecting one of Thailand's competitive strengths, and is judged important in the national economic development strategy. Thailand is one of the most important food exporters in Asia and the world. It is geared towards trade and investment liberalization (through free trade agreements and international investment agreements), and also tries to attract higher levels of FDI via its investment promotion programmes as well as export-led industrialization policies.

2.2 Foreign Direct Investment (FDI) data in Thailand

There are two main sources of foreign direct investment (FDI) statistics in Thailand: the Bank of Thailand (BOT) and the Board of Investment (BOI). Data from both are employed in this chapter. The BOT's FDI statistics cover overall FDI flowing into the Thai economy, while those from the BOI partially cover the FDI that receive the BOI's promotion packages. It is important to note that not all FDI projects apply for BOI promotion, and

⁴ Regarding the food-processing industry, this research uses the same definition of the food industry as that of the Thai Ministry of Industry (2002), which defines "the food industry" in the national master plan for Thailand's food industry as: "Food industry means an industry that uses agricultural products such as plants, livestock and fisheries as main raw material in productions. The productions are based on technologies in order to get products for consumption uses or for other uses in further production processes. It is a method of preservation of agricultural products by primary manufacturing processes or intermediate manufacturing processes or final manufacturing processes."

the two data sources are compiled on a different basis.

FDI data collected by the Bank of Thailand follow the International Monetary Fund (IMF) Balance of Payments Manual, which is an international standard for collecting FDI statistics. The BOT's FDI statistics comprise three components: equity capital, with at least 10 percent of foreign shareholding, loans from affiliates, and reinvested earnings (Bank of Thailand, 2010). Since the data definitions are in accordance with the international standard, they are comparable among countries and widely used in the analysis of FDI. The BOT's statistics represent the entire streams of investment and are often reported as net FDI flows. Net FDI flows are defined as FDI inflows minus FDI outflows.

Foreign direct investment data collected by BOI refer to projects with foreign capital of at least 10 percent. The BOI's FDI definition does not strictly comply with the IMF's direct investment standard; therefore the data is often called foreign investment instead of foreign direct investment. The BOI's foreign investment data cover only projects which have applied for – or received approval from – BOI promotion. There are seven sectors under the BOI promotion: i) agriculture and agricultural products; ii) mining, ceramics and basic metals; iii) light industry; iv) metal products, machinery and transport equipment; v) electronic industry and electrical appliances; vi) chemicals, paper and plastics; and vii) services and public utilities. This study focuses only the first sector.

Since the two sources of FDI data are compiled on a different basis they are not comparable. Nonetheless, both data sets complement each other. BOT's FDI data represent actual flows of FDI into Thailand while BOI's data indicate trends of FDI. The BOT's FDI depict the overall picture of FDI at an aggregate level while BOI's FDI allows us to investigate the role of foreign companies at the project level.

3. Policies, legislations, institutions affecting FDI in Thai agriculture

3.1 Overview

Investment barriers

High Transaction Costs

Thailand has evolved towards an open economy. This is reflected in its declining tariff and non-tariff barriers over time. During the 1960s and 1970s, import tariffs were set at high levels, especially for those that were infant industries at the time (e.g. the automotive industry), when the import substitution policy was put in place to protect domestic industries (The Board of Investment of Thailand, www.boi.go.th). In the late 1990s, import duties on machinery and capital goods (61 categories) were removed for export oriented firms. Additionally, import taxes imposed on raw materials of exported products were exempted for both the Board of Investment of Thailand (BOI) and non-BOI promoted firms. Firms could obtain import tax refunds from Thailand's customs department.

High transaction costs still remain, due to inefficient public services, ambiguous regulations and duplicate/complex administration processes amidst the liberalization of trade and investment in Thailand. The Asian financial crisis in 1997 was a wake-up call for Thailand's wide range of reforms, including government transparency and economic reforms. Many Thai Government agencies like the Thai export promotion department and the BOI launched their One-Stop-Service centres in order to facilitate exporters and investors. To date, only some of these centres have proved to be efficient in providing services in a short period of time (i.e. visa and work permit approved within three hours as well as single window for submission of required customs/ business permits and standard certification documents). Nevertheless, processing time in the clarification and interpretation of the Harmonised System (HS) code, customs clearance and import tax refunds (maximum of 30 days with high possibility of delays), and value-added tax refunds

(15-90 days or more), is quite lengthy as a result of non-transparent rules and regulations as well as bureaucratic red tape. Last but not least, business permits, registrations and standard certificates involve many government agencies whose procedures and requirements are distinct to certain extent. This, in effect, requires significant time and increases in transaction costs which are among the factors influencing FDI inflows.

As a result of the issues described above, many firms (both new and established), have to acquire more information on, among other things, business permits and registrations, standard certification, product classification, customs and taxation procedures as well as relevant regulations. For example, a well known and established food processing firm (Company J), aiming to export its products to Australia would have to contact the Thai Government agency, the Department of Export Promotion (DEP) for detailed information on the bilateral FTA between Thailand and Australia. At the time, that company had not yet gained any benefit from the FTA, due to the fact that there was some confusion over the product categories entitled to enjoy lower tariffs.

The report of the World Bank on Thailand's investment climate assessment update (2008), is based on the analysis of 1 043 firms in manufacturing sectors which comprise automobile parts, food processing, furniture/wood, electronic parts, electrical appliances, garments, machinery, rubber/plastics, and textiles. These firms participated in the Thailand Productivity and Investment Climate Surveys (PICS), conducted in 2007. The report describes with great precision the difficulties that firms experience in doing business in Thailand. Complication and confusion over administration as well as procedures for getting business permits and standard certificates cost these firms both time and money:

In a nutshell, while the reductions in tariff, non-tariff barriers and taxes help induce FDI, Thailand still needs to simplify its taxation, customs and other public administration procedures and regulations in order to gain its position as one of the region's most attractive FDI recipient countries.

Political instability

Since 2006, Thailand has faced severe political uncertainty issues. There was a military coup in 2006 and political unrest and violence in 2010. Changing governments and prime ministers (seven prime ministers during the period 2006-2010), mean a possible modification of existing policies. In the worst case, some economic policies may be discontinued. For example, in 2006, right after the coup, changes in capital mobility policy were made via stricter currency and capital controls (30 percent reserve requirement on capital inflows). In addition, the government at the time tried to amend the Foreign Business Act 1999, causing an increasingly negative reaction on the part of investors. As expected, uncertainties caused many foreign investors to delay their decisions or search for alternative investment destinations. This has produced a continuously negative impact on FDI inflow (see Section 4).

The government announced that there would be no change to the Foreign Business Act 1999. Foreign firms could own up to 49 percent of shares in the service sector. The percentage of ownership was greater in case of foreign firms investing in Thailand's manufacturing sector. With regard to land ownership, foreigners and foreign firms could continue to purchase limited plots of land (mostly in industrial estates), but on condition that prior approval was obtained from the government. Clearly, amidst the political turmoil and instability of the period, Thailand's FDI inflows were declining. The Government perceived that a remedy could, nonetheless, be found through the creation of a stable and favourable macroeconomic climate as well as the development of clear, long-term policies.

The relationship between political turmoils and FDI prevailed in the case of demonstrations held during the first half of 2010; these undoubtedly adversely influenced Japanese investors' decisions and confidence. The Japanese Chamber of Commerce (JCC) in Bangkok conducted a survey to gauge business sentiment among JCC member companies in Thailand. A total of 375 firms out of 1 299 responded to the questionnaires (28.9 percent response rate). It was reported that the majority of firms participating in the

survey (accounting to approximately 67 percent) recognized the demonstrations as a factor affecting their future investment in Thailand, while 7 percent of these firms increased their investment criteria in response to such political uncertainty (Japanese Chamber of Commerce, 2010). Remarkably, 99 percent of firms believed that the political unrest could cause possible negative effects on the domestic economy. Therefore, the impact on Thailand's FDI inflows is probably greater in cases of market seeking Japanese firms (primarily focusing on selling their products in Thailand) than those firms using Thailand as their production bases for exported products.

Limited government support on research and development and human resource development programmes

One of Thailand's weaknesses lies in research and development (R&D); another in its human resource development (HRD). There is a great need for public investments in these areas in order to enhance the attractiveness for FDI in the agricultural sector, and also increase agricultural productivity which has been included as the key area for development since the First National Economic and Social Development plan. This emphasizes the vital roles and importance of the agricultural sector as an engine for Thailand's economic growth. Agricultural products are exported to the world market; at the same time, they constitute raw materials and intermediate products for other industries including food processing. Thailand aims to be "the kitchen of the world" and global food exporters. In order to achieve this aim, the food processing industry has been included as a major priority sector in the Ninth National Economic and Social Development Plan. Agricultural development (both through R&D and HRD) requires concerted efforts by various government agencies, for example, the Ministry of Agriculture and Cooperatives and the Ministry of Science and Technology.

In the 1960s, government policy focused predominantly on increasing agricultural productivity and diversifying the production of major agricultural products that were in high

demand in both domestic and international markets. Protection from epidemics and the development of fine livestock breeds were promoted during this period. Forest and natural resource conservation was also the key developmental goal aiming to utilize approximately 50 percent of land. However, research and development in the agricultural sector was limited to only some economic crops such as rice, rubber and corn. Additionally, regarding the fishery subsector, the Thai Government began to support research and training programmes for fishermen to increase their capabilities for deeper-sea fisheries.

Later, the Fourth National Economic and Social Development Plan (NESDP) reinforced the Thai Government's efforts to improving agricultural productivity and development by promoting advanced technologies, for example, fertilizer, pesticide, and agricultural machines, but most Thai agribusinesses and farmers still lacked the technological capabilities to create their own state-of-the-art technologies. As a result, most of these technologies were imported and adopted by Thai users in the agricultural sector. By so doing, they helped reduce costs of production and time consumption while increasing output. During the same period (mid-late 1970s), Thailand's Board of Investment (BOI) offered privileges to export-oriented manufacturers who employed capital-intensive production according to the Thai Investment Promotion Acts. This helped influence foreign investors to make investments in Thailand's agricultural sector including food processing as shown by positive figures for the first time (See Section 4 for details).

Agribusiness firms (both Thai and foreign) have played significant roles in the development of the agricultural sector. They become innovators and dominant players because they have better access to sources of funds, technology and expertise than farmers and other players in the value chain. Research and development requires a large amount of long-term investment; large firms are capable of mobilizing funds either via domestic channels or joint ventures with foreign firms, or internal capital support from international headquarters. These generate

benefits to agricultural development in crops, livestock, aquaculture, and plantations as well as food processing. In addition, big firms possess technological skills and capabilities which can increase the success probability of their research projects. They build strong linkages with farmers via contract farming systems, allowing farmers to have access to newly developed technologies and thus to enhance their agricultural production skills.

The Ministry of Science and Technology also plays an important role in increasing Thailand's agricultural competitiveness and improving agricultural performance. This is clearly demonstrated in, for example, one of its agency's strategic plans. The National Science and Technology Development Agency (NSTDA)'s strategic plan (2007-2011) aims to promote research and development; implement activities related to technological transfer and human resource development; and develop science and technology infrastructures in order to achieve the main goal of the Tenth National Economic and Social Development Plan, to transform Thailand into a "knowledge based and creative economy". The NSTDA of the Thai Ministry of Science and Technology ranks the food and agricultural sector as one of its top priorities in line with the Ninth National Economic and Social Development Plan. A separate food and agriculture cluster is responsible for seed development, animal breeding technology, cost reduction and productivity enhancement technologies, improving production quality, food safety and risk assessment of seafood products.

Key indicators of the successful transformation towards a "knowledge based and creative economy" are the amount of investment dedicated to research and development as well as human resource development. Thailand's sustainable development depends on production capabilities, which can in turn be enhanced by utilizing technological capabilities; the latter can be promoted via research and development investment. The NSTDA is the main engine driving improvements in the industrial and agricultural sectors because it promotes new innovation and cooperation with partners. However, it is noteworthy that Thailand's research and

development budget has remained unchanged at 0.5 percent of the GDP. Actual government spending on R & D is even less – only about half since the Fifth National Economic and Social Development Plan (1982-1986) up to the current national plan (2007–2011). Additionally, only 6 percent of Ministry of Agriculture and Cooperatives' spending is on research and development.

With regard to human resource development, the Thai Government acknowledges the low quality and poor access to education among Thai people. Labour quality has been the key issue affecting levels of gross FDI inflow and economic growth. As a result, education policy and its development have been set as the government's priority and included in the Tenth National Economic and Social Development Plan. Better-educated labour accelerates the rates of technological absorption, leading to higher productivity. At present, there is a mismatch between the skills offered by Thai labour and the skills needed by foreign firms. Approximately 40 percent of manufacturing firms indicated that labour shortages and mismatches is a major hindrance to doing business in Thailand (World Bank, 2008). The newly developed education policies and systems have now been put in place. The formation of strategic alliances between education and economic sectors can help solve the issue (close the skill mismatch gap) as well as generate research and knowledge suitable for sectoral development.

Singapore is a good example of successful human resource development programme in the Southeast Asian region. Singapore's government has spent a significant amount on education which has helped to build up knowledge and disseminate technology (Hobday, 1994). This may be the reason why Singapore is the most developed country of this group, attracting a huge amount of FDI. Although this is not yet the case for Thailand, the Thai Government is committed to achieve its long term human resource development goals through active education reform, encompassing a free, high-quality education policy. So far, the current Thai Government has provided full support for a 15 year free basic education programme.

Students are entitled to tuition fees, textbooks, learning materials, school uniforms, as well as other pertinent educational activities (free of charge). The reforms do not only focus on the quantity of education made available, but also on improving the quality. However, the government has not achieved much progress to date due to insufficient infrastructure (e.g. ICT systems), coordination and centralization issues arising from various agencies (e.g. Ministry of Education, Ministry of Science and Technology and Ministry of Agriculture and Cooperatives) involved in the human resource development as well as research and development programmes.

Investment policy climate

Macro-level policies

Export-led industrialization policy

Thailand is one of the most popular destinations in ASEAN (Association of South East Asian Nations) in which foreign investors choose to locate their operations since it is among the fastest growing economies in the Southeast Asian region. Obviously, many countries and their respective firms would want to enjoy and take advantage of its high rates of growth. Thailand has achieved remarkable economic growth since 1981, reaching a two-digit growth rate in late 1980s. Thailand's economic growth maintained a positive rate while that of Malaysia and Singapore declined in 1985. However, after the 1997 Asian financial crisis Thailand and Malaysia experienced the lowest economic growth in 1998, at -10.5 and -7.4 respectively, while Singapore's growth rate was -0.9 (Statistics Division of the United Nations, <http://unstats.un.org>). In the 2000s, Thailand's growth rate rebounded and reached 4.07 percent in 2006, in spite of political upheavals.

Thailand's development strategies have played important roles in accelerating economic growth. The development of Thailand's industrialization policy began with the formulation and implementation of an import substitution policy, initiated in 1958. The policy had been incorporated in Thailand's National Economic and Social Development Plan as well as the Thai Board

of Investment's policy. The Thai Government selected certain industries to be entitled for benefits of such a shelter policy based on their direct linkages to domestic industries, as well as usage of domestic raw materials and contribution to Thailand's aggregate foreign exchange saving. This was achieved via tariffs, import restrictions and preferential treatment including special taxation for investment in the priority sectors. In the 1970s, the Thai Government started employing an export promotion policy. However, import substitution measures were used at the same time as protection tools for intermediate and capital goods producers as well as exporters. This is supported by evidence from food processing statistics with a very high effective tariff rate in 1975, estimated at 65.8 percent, and a nominal tariff rate of 22.6 percent (Urata and Yokota, 1994).

During the 1980s-1990s, Thailand progressed towards a more open and liberal economy by implementing its openness policy. In the early 1980s, the use of import substitution industrialization tools was minimized, as shown by a considerable decrease in tariff rates and other non-tariff barriers. Since 1987 (the Sixth National Economic and Social Development Plan), the Thai Government has implemented a full-scale, export-led industrialization policy focusing more on technology intensive sectors. This includes preferential measures through taxation and the provision of low cost funds, as well as the development of export processing zones. The success of the policy was marked by high economic growth rates from 1988 (13.29 percent) until the mid-1990s (9.24 percent). The changes made contributed to increased FDI much more than relying on the obsolete import-substitution policy, and resulted in an increase of Thailand's inward FDI to GDP ratio from 1.03 percent in the 1970s to 3.38 percent in the 1990s (see also Section 4). Additionally, Kohpaiboon (2003) found an empirical result of the increase in FDI generating higher economic growth in favour of an export promotion trade regime in the period of 1970-1999. This is not surprising as the nature of most FDI is export oriented. For example, Japanese MNEs and firms from the newly industrialized countries (NICs) like

Singapore, Hong Kong, the Republic of Korea and Taiwan Province of China established their subsidiaries in Thailand as production facility bases for manufacturing export products (Urata and Yokota, 1994). Clearly, appropriate and effective economic development policy help create a sound macroeconomic environment suitable for attracting FDI.

The economic implications of export-oriented policy for FDI growth of agricultural and food processing sectors succeeded in the 1980s and 1990s. In the past, the agricultural sector was a leading export sector for Thailand with little support from FDI. It seemed that the sector also did not receive much benefit from the import-substitution policy, given its nature of operations (natural resources intensive). Later, the export promotion policy partly expedited Thailand's agricultural and food processing exports. Food product export was the largest among other manufacturing sectors until 1990 (Julian, 2001). Such an open-door policy also helped attract foreign investors and companies to invest and take advantage of the low production and operating costs in these competitive sectors (see Section 4).

Crucial engines facilitating structural changes in Thailand were strong relationships and good cooperation among technocratic advisers, politicians, and industrial groups (Rock, 1995). The author also argued that Thailand's industrial policy has been well planned and consistent. In addition, Thailand successfully implemented an investment-incentive policy (Drabble, 2000; see also Section 3.2.2). Building up a sound investment environment and government initiatives and interventions are vital for economic and foreign investment growths. These government policies create advantages that can partially explain Thailand's internationalization success. The advantages are additional and complementary to conventional comparative advantages, such as low labour costs and other country-specific factors, which initially attract FDI.

Trade and investment liberalization

Thailand's government policy is geared towards a higher degree of economic integration and trade liberalization. Thailand is a member of trade

organizations at both regional and global levels and is actively involved in the development of trade agreements at bilateral level. Apart from being a member of the Asia Pacific Economic Cooperation (APEC) forum and the World Trade Organization (WTO), Thailand aims to develop better bilateral trade and economic relationships with its trade partner countries. It is thought that these free trade measures and policies will help to expedite trade in goods and international investment and generate a sound environment for firms involved in international business activities. These are in accordance with the goals of the Ninth National Economic and Social Development Plan of Thailand (2002-2006) in obtaining bargaining power in international trade and investment (Thai National Economic and Social Development Board, www.nesdb.go.th). The Thai Government employs a bilateral FTA policy that partially helps them to achieve international trade and investment goals. In addition, the Tenth National Economic and Social Development Plan (2007-2011) continues to focus on a proactive trade strategy. This includes seeking new markets and enhancing competitiveness of Thai producers based on knowledge and abundant natural resources. Free labour mobility across countries through economic integration and liberalization is supported by the Thai Government as a means to attract foreign workers, businessmen and investment.

The Thai Government has undertaken free trade initiatives as a critical part of its overall international trade strategy. The policy was initiated in 2001, following the example of Singapore, which was the first ASEAN (Association of South East Asian Nations) country to implement a bilateral free-trade agreement regime. There are different stages of development and success in each free trade agreement negotiation process. In Thailand, many active free trade negotiations have been in progress for some time, for example, Thailand-United States. Others are already in effect: Thailand-Australia, Thailand-New Zealand, and Thailand-Japan (Thai Department of Trade Negotiation, Thai Ministry of Commerce, www.thaifta.com). Among these, Thailand's first bilateral, free-trade agreement with a developed country, the Thailand-Australia

Free Trade Agreement (TAFTA), was successfully agreed on 5 July 2004.

Apart from comprehensive FTAs, interim agreements, like the Early Harvest Schemes (EHSs) or the Early Harvest Programmes (EHPs) have also been reached. The interim trade agreements help to accelerate trade liberalization between the parties before bilateral FTAs are fully negotiated. In general, they comprise only one part of broader framework agreements. While the framework agreements cover trade in goods, services and investment embracing comprehensive economic cooperation, EHPs or EHSs focus on just one sector (mainly trade in goods). The interim trade agreements, like the Thailand–China EHP and the Thailand–India EHS, came into force in 2003 and 2004 respectively. At the regional level, Thailand is a member country of the ASEAN Free Trade Area (AFTA) which became effective in 1993. Moreover, ASEAN established many bilateral agreements with countries such as Japan, China, India and Republic of Korea.

The development of free trade agreements between Thailand and its trading partners has brought about a wider market opening for trade in goods. Tariff reductions are considered to be high in all these bilateral agreements. JTEPA, for example, eliminates tariffs from 95 percent of Thai goods. TAFTA and TNZCEP reduce tariffs for Thai products – including agricultural products, processed food, processed seafood and ready-to-eat food – by 83 percent and 79 percent respectively. Goods under the Thailand–China EHP are mainly fresh fruits and vegetables, while the Thailand–India EHS covers 84 items of agricultural and industrial products such as fruit and processed food products. Additionally, AFTA helps decrease tariffs by more than 60 percent including the removal of non-tariff barriers. The aforementioned FTAs have some exceptions with regard to the implementation of tariff elimination of agricultural products on the sensitive list – such as dairy products under TNZCEP – stating that complete tariff elimination is extended until 2015. But these constitute only a small minority of products, for which Thailand needs to enhance competitiveness by lowering their production costs.

Thailand's food exports, however, show a declining growth rate of -3.1 percent in 2009 (National Food Institute of Thailand, 2010b). This emphasizes the need to deepen current markets and, at the same time, expand into new markets. It is anticipated that the established FTAs will facilitate this process (National Food Institute of Thailand, <http://nfi.foodfromthailand.com>). The food industry is one of the key sectors in Thailand's free trade agreement strategy (Thai Department of Trade Negotiation, Ministry of Commerce, www.thaifta.com). As a result of successful negotiations, tariffs for some food products are subject to eliminations over time, while some others are immediately reduced to zero. This may well encourage international firms to take FTAs into account and to gain benefit from the favourable trade policy.

Clearly, the FTAs provide firms with competitive advantages (via tariff reduction) over those competitors whose governments have not yet liberalized their trade regime. There is also a provision for technical assistance and close cooperation, especially in agricultural technology (i.e. under TAFTA, TNZCEP and AFTA). It is postulated here that this cooperation will enhance productivity and the quality of Thai agricultural products used as inputs in processed food production. In essence, the established FTAs offer many benefits from trade liberalization, from wider business opportunities to larger and more easily accessible markets to technological development. However, there is one query concerning the major beneficiaries from trade liberalization. Although the FTA directly expand trade opportunities by widening market access for agricultural products and processed food products, the benefits to players such as agrobusinesses, exporters, distributors and foreign investors outweigh the benefits to Thai farmers at large. The annual income from agriculture for the Thai farmer household averaged US\$3 821 in 2007, and increased slightly to US\$4 406 in 2009. Similarly, net agricultural income was US\$1 679 (per year) in 2007, and US\$1 916 in 2009 (Office of Agricultural Economics, 2007, 2009). Most of the farming households remain poor. Although the existing contract farming system helps integrate Thai farmers into the agricultural

and food industry value chain, most of them still cannot move up the value chain with their limited knowledge and technological know-how.

With regard to investment liberalization, there are two main types of international investment agreements (IIAs) that are increasing in their importance and popularity, namely FTAs (as described earlier) and bilateral investment treaties. The role of FTAs in driving FDI should not be neglected as they help promote and liberalize investment across countries. Dunning et al. (1998) argued that the internationalization of firms might be partly due to globalization and regionalization of markets and the pursuit of value-adding activities. Buckley et al. (2001) argued that the North American Free Trade Agreement (NAFTA) increased the possibility of non-member country firms' undertaking reorganization and rationalization. There would be higher foreign direct investment from European MNEs in the USA (Buckley et al., 2001). Rugman and Verbeke (1990) analysed the impact of Europe in 1992 on corporate strategy. They found that European firms would integrate related production and marketing activities across Europe. More generally, it seems that FTAs cause both insider firms (of countries party to the agreements) and outsider firms to increase investments.

While most interim agreements do not cover liberalization of investment or movement of people, the comprehensive bilateral agreements expedite investment by including investment promotion and liberalization provisions as part of investment chapters. This provides foreign firms with greater opportunities for investment in both service and non-service sectors in Thailand and vice versa. Liberalization in services and investment included in the FTAs is good for international firms in the food industry, since almost all value-adding activities are open to foreign investment. Higher levels of investment are encouraged by liberalization of the production and service sectors, as well as facilitation of natural person mobility. With regard to the movement of people, the most relevant feature is that Thailand agrees to facilitate temporary business entry for citizens from countries party to the bilateral FTAs, since the bilateral FTAs cover a

chapter on the movement of natural persons. In addition, simplified and transparent immigration formalities for business people are employed and encouraged. The deregulation of movement for people helps foreign firms to relocate their human resources when they invest in Thailand; for example, in sales and distribution offices, or in setting up factories. Further, investment cooperation on research and development and capacity building of priority sectors including agroprocessing, is incorporated into many FTAs such as the bilateral FTA between Thailand and New Zealand.

Another category of IIAs falls to the bilateral investment treaties (BITs). The significance of bilateral investment treaties (BITs) between Thailand and its partner countries is to protect and facilitate foreign investors as well as increase inflows of FDI (Neumayer and Spess, 2005; Kerner, 2009). Since the multilateral investment agreement has not been established yet, the BITs are used as critical and universal tools to attract FDI. They gain popularity from their modest complexity and narrower scope/coverage, involving shorter time spent on the development process than other types of international investment agreements (IIAs) like double taxation treaties and FTAs. These BITs in effect help promote and, at the same time, protect FDI via provisions of national treatment, contractual right protection and investor-state dispute settlement as well as the relaxation of minority ownership restriction.

Up until 1 June 2010, Thailand signed off 40 BITs in total according to reports submitted by Thailand to the United Nations Conference on Trade and Development (www.unctad.org). The first BIT between Thailand and a developed country (Germany) was concluded successfully in 1961, followed by Thailand- Netherlands investment agreement concluded on 6 June 1972, and the Thailand-United Kingdom bilateral investment agreement signed on 28 November 1978. There was a tremendous growth in terms of numbers of Thailand's engagements in BITs. In the 1970s and 1980s, there were only four agreements signed, while 21 BITs were concluded during 2000-2010. These agreements have been reached with both developed countries (i.e.

Germany, Switzerland, United Kingdom) and developing countries (i.e. China, NICs, Indonesia). To date, Germany, China and Switzerland are among the most active countries engaging in the negotiation and development of BITs as shown by the numbers of signed BITs with these countries (www.unctad.org/iia). The Thai Government realizes the importance of FDI in economic development resulting in a rapid expansion of BITs and a change of policy towards a greater degree of investment liberalization after the Asian financial crisis in 1997.

Although Thailand is one of the most attractive FDI destinations, it has to compete with other countries in the same region and elsewhere for foreign capital. In particular, competition among developing countries is very stiff. Recent political unrest heightened concern about Thailand's competitiveness and its sound macroenvironment. Foreign firms may have to think more than twice before making the decision to invest, by taking divers variables into account, for example, market size, culture, legal systems, and political risks. Reduced level of political stability greatly affects uncertainty levels. These firms have to monitor possible changes in rules and regulations, particularly with regard to ownership, expropriation and profit remittance.

The establishment of Thailand's bilateral investment treaties help to build up confidence on the part of foreign investors, and reduce both political and commercial risks by providing protection for foreign investors against expropriation or nationalization. For instance, the BIT between the Russian Federation and Thailand clearly stated that investments of investors from countries party to the agreement shall not be nationalized, nor will ownership be transferred to the state (with some exceptions, such as public welfare protection requiring government intervention). In addition, several BITs between Thailand and partner countries include the provision of "prompt, effective and adequate" compensation in cases where expropriation occurs. This is in line with Thailand's Investment Promotion Act B.E. 2520 (1977) stating that the Thai Government will not transfer business ownership of promoted investors to the state. This reflects a high standard of Thai law in this

aspect, although the Investment Promotion Act B.E. 2520 (1977) only provides safeguards for investors whose projects received approval from Thailand's Office of the Board of Investment.

In addition, these BITs grant foreign firms national treatment. In effect, foreign investors from different countries investing in Thailand will be treated equally without any discrimination or special preference toward any particular country. Foreign investors can sue the state when they receive reputedly unfair treatment. BITs also exempt foreign investors from minority ownership restrictions and, as a result, encourage firms to make direct investments. Foreign investors may find it faster and easier to utilize the benefits of BITs since they do not need approval from the BOI and can bypass all administration time and costs involved in the approval process. However, they still need to apply for industrial and commercial licenses as required by Thai rules and regulations during their establishment processes.

With regard to transfer of funds, many BITs between Thailand and partner countries guarantee "freedom of transfer" subject to domestic exchange regulations and practices which comply with international standards, such as that of the International Monetary Fund (IMF). However, most BITs do not include provisions for balance of payment safeguards, prudential measures and stability articles. Nuannim and Kaewpornsawan (2010) argued that Thailand should include these provisions in BITs to allow the state to implement emergency and appropriate measures to maintain financial system stability and to prevent any damages to the balance of payments as well as public interest as a whole. These are deemed sensible, especially when financial crises occur, because some negative aspects of free transfer and openness may be more vulnerable to external shocks.

There were many external shocks, e.g. increases in oil prices and the financial crisis, during the past two decades. An analysis of the Thai Government's response to external shocks in the short run helps us to understand the importance and role of economic policy on growth. After the financial crisis emerging in the Southeast Asian region, Thailand dealt with this problem by following the IMF rescue plan

and maintaining high capital mobility. The Thai Government tried to induce foreign capital by raising domestic interest rates. This undoubtedly caused a reduction in domestic investment, while the huge influxes of FDI into Thailand increased from 99 733 million Baht in 1996 to 284 938 million Baht in 1998. Even with such a boost, Thailand's economic growth in 1998 was the lowest among Southeast Asian countries and continued growing at a lower rate than that of Malaysia and Singapore during 1999-2000 (Statistics Division of the United Nations, <http://unstats.un.org>). Malaysia, in contrast, responded to the crisis which occurred in 1997 by rejecting the rescue plan. Malaysia did implement a stricter capital control policy than Thailand, which led to a relatively lower domestic interest rate compared to that of Thailand in the same period (IMF, 2001). Malaysia successfully recovered within a year after the crisis. Thus, it may be concluded that the ability of the governments to effectively formulate and implement policies when external shocks occur is crucial for continuous and sustainable economic stability. Additionally, the government should build a good balance between domestic and foreign investments, as high fluctuations in FDI could cause macroeconomic turbulence. This should be taken into account and heavy reliance on FDI should be avoided.

Micro-level policies: BOI policies

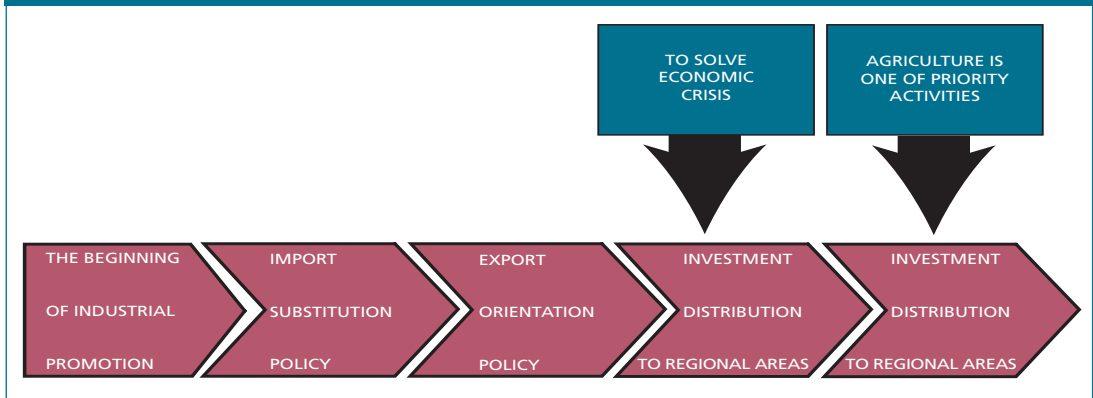
The Office of the Board of Investment was established on 21 July 1966, commonly known as Thailand Board of Investment (BOI). The BOI is the core government agency responsible for promoting investments, both local and foreign, mainly in the manufacturing sector. Since 1966, the Board of Investment has played an important role in shaping Thailand's direct investment policies including the policies affecting FDI in the agricultural sector. Although there are several Thai agencies affecting investment policy climate, the BOI is uniquely positioned to provide policy feedbacks from direct access to foreign and domestic enterprises.

To maintain a favourable investment climate, the Thailand Board of Investment has adjusted its policies over time in accordance with

economic conditions and the National Economic and Social Development Plans. The BOI (2006) summarizes the investment promotion policies as shown in Figure 1. There are three main policies: import-substitution, export-orientation, and the dispersion of direct investment to regional areas.

- Investment policy to promote import-substitution took place during 1958-1971, which is in line with the first and the second national development plans. This policy aims at encouraging firms to use local raw materials, developing infrastructures, and encouraging FDI in the form of joint ventures. The target industries during this policy include sugar, paper, automobile tyres, and plywood.
- Investment policy to promote export-oriented industries began in 1972 and continued through 1992 in accordance with the third to the sixth national development plans. This policy shifted emphasis towards promoting export-oriented activities as well as promoting small-scale and regional industries. A thrust was also given to agroprocessing industries such as canned food, fertilizers, and food processing.
- Policy to disperse investment activities to regional areas has been emphasized since 1993, as stated in the seventh national development plan and continues to the present. To maintain the country's competitiveness and promote more balanced growth, increased emphasis has been placed on the dispersion of industrial activities to regional areas. The agro-industry has been set as one of the target industries serving as a basis for long-run industrial development and linkages. The BOI has relaxed its conditions and offered more incentives in order to encourage investors to improve their production efficiency and technology. For example, the BOI encourages food-processing factories to enhance their operations to the level of international standards ensuring food safety (e.g. GMP, HACCP), and traceability.

FIGURE 1
Investment promotion policies



With regard to the Board of Investment's promotional packages, there is no discrimination; meaning that all approved projects receive the same privileges. Regarding foreign direct investment, BOI policies aim to promote and attract foreign investment into the country, particularly in activities deemed beneficial to the economy, using tax and non-tax incentives. The Board's tax privileges aim at reducing costs of doing business in Thailand by granting exemptions on corporate income tax (for a maximum of eight years), and import tariffs on machinery, equipment and raw materials. Rights and benefits vary according to factory location.⁵ A promoted company is also allowed to own land under the approved project. These privileges are available to all investment projects, both local and foreign, approved by the BOI. In addition, the BOI provides the necessary information and assistance to facilitate investors' businesses. For example, the office helps investors to obtain official permits and documents required for conducting business, including visas, work permits and permanent residency permits. The Board also encourages industrial linkages between foreign firms and local supporting industries by bringing

and matching those who want to find local business partners, subcontractors or specific raw materials.

The Board of Investment has granted promotional packages to investors or companies on a project-level basis. The promoted projects must comply with the BOI's criteria specified under the Investment Promotion Act B.E. 2520 (1977), which are transparent and periodically updated in response to current economic and investment conditions. The BOI has classified activities eligible for promotion into seven groups or sectors. They comprise agriculture and agricultural products; mining, ceramics and basic metals; light industry; metal products, machinery and transport equipment; electronic industry and electrical appliance; chemicals, paper and plastics; services and public utilities.

The BOI has accorded investment projects in the agriculture and agricultural products the status of priority activities. Priority activities are deemed important and beneficial for the Thai economy; they are granted maximum rights and benefits regardless of factory location. In general, an approved project is granted corporate income tax exemption subject to cap. That is, the tax break cannot exceed its project's investment value. This tax exemption limit is lifted for projects investing in agriculture and agricultural products. There is also no limit on machinery and equipment import duty exemptions.

⁵ See details in 'A Guide to The Board of Investment' outlining the BOI's requirements for project approval, available at www.boi.go.th under BOI publications.

The criteria of foreign shareholding for activities in agriculture and agricultural products are partly related to the Foreign Business Act B.E. 2542 (1999). Under List One of the Foreign Business Act, foreigners are not permitted to operate the majority of agricultural activities (including rice farming, farming or gardening, animal farming, forestry and wood fabrication from natural forest, fishery for marine animals in Thai waters and within Thailand specific economic zones, extraction of Thai herbs). Accordingly, for BOI-promoted projects in agriculture, animal husbandry and fisheries under List One of the Foreign Business Act, Thai nationals must hold shares totalling not less than 51 percent of the registered capital. Other activities, such as food processing and manufacturing of agricultural products, are free from this shareholding criterion.

4. Analysis of international investments in the agricultural sector

The analysis of international investments in the agricultural sector of Thailand is divided into two subsections. First is the analysis of the overall international investment in the agricultural sector. The foreign investment data used in this analysis are mainly drawn from the Bank of Thailand (BOT). The second analysis focuses on the foreign investment promoted by the Board of Investment (BOI). Both BOT and BOI data have been commonly used to analyse international investment in Thailand.

4.1 Overall FDI analysis

Both GDP and total inflows of foreign direct investment portrayed a rising trend during 1997-2009. Although there are arguments over cause and effect issues between the two variables, it is obvious here that they move in the same direction. While GDP increased steadily over time, FDI fluctuated to some extent. In 1970, FDI accounted for 1 014.10 million Baht (GDP: 148 279.76 million Baht). Later, FDI reached its peak of 1 274 046.54 million Baht in the year 2006 (GDP: 7 850 193 million Baht) and declined

to 459 938.44 million Baht by the end of 2009 (GDP: 9 041 551 million Baht). This could be explained by the United States subprime and global economic crises. Domestic factors like Thailand's political crisis also plays an important role in inducing sharp falls of FDI inflows from 2006 onwards. Although the fluctuation of FDI has not affected GDP that much in value, it is noticeable that GDP growth rates declined from 5.15 percent in 2006 to 2.46 percent in 2008, and the growth slowed to its lowest rate in a decade, reaching negative growth at -2.25 percent in 2009 (Thai National Economic and Social Development Board, www.nesdb.go.th). The authors of this chapter are of the view that macroeconomic and political stabilities at both global and local levels induce/influence FDI and vice versa. The analysis of FDI economic impacts on exports, output and employment of agricultural and food processing sectors will be discussed in Section 5 of this chapter.

During 1970-2009, FDI inflow is 192 710.32 million Baht on average (US\$5 356.58 million); amounting to 3.66 percent of the GDP. It is noticeable that FDI to GDP ratios were very small before 1986 when there was a development of economic policy progressing toward a more export-oriented policy. Another observation is that, not surprisingly, the average FDI to GDP ratio of the industrial sector is the highest (1.37 percent), followed by FDI to GDP ratio of the service sector (0.25 percent). Agriculture FDI to GDP ratio is only 0.01 percent. This is consistent with structural adjustments that occurred in Thailand. It highlights the importance of effective shifting of resources away from the agricultural sector, while at the same time, shifting more towards the increasingly attractive, strong and competitive industrial sector.

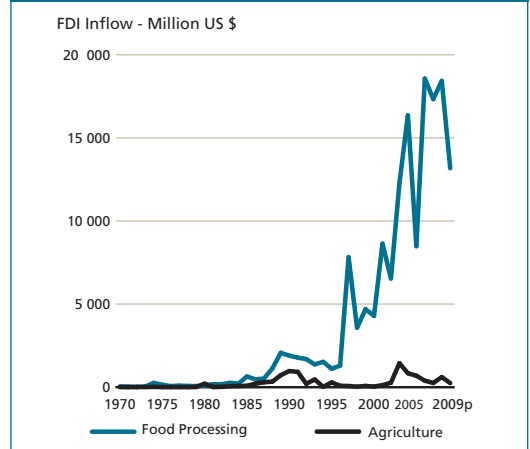
In an early period (1970-1990), FDI inflow was quite low, ranging from only 1-2.08 percent of GDP and 4.69-6.19 percent of total investment (Gross Fixed Capital Formation) during 1981-1990. This may be due to the fact that global FDI inflow was at its lowest level, and Thailand had not developed much, both in economical and political terms. After the financial liberalization in the 1990s, Thailand's FDI increased considerably, from 2.83 percent to 8.72

percent of GDP in 2001 considerably 2009 and, at the same time, increased from 7.03 percent to 35.98 percent of Gross Fixed Capital Formation (See Table 8). Interestingly, FDI increased up to 50.97 percent in 1996-2000. This helps explain the possible effects of the Asian financial crisis in 1997 on FDI inflow data. It was reported that parent companies (MNEs) injected capital into their subsidiaries in Thailand coping with Thai Baht devaluation and serious liquidity problems (www.bot.or.th).

In the 1990s, countries that contributed greatly to Thailand's economy via FDI, apart from the United States and the European Union, were Japan (one of the most advanced internationalizing economies in the region) and Asia's newly industrialized countries (NICs) like Singapore, Hong Kong, Republic of Korea and Taiwan Province of China. This was caused by the appreciation of their currencies after the 1985 Plaza Accord. In addition, their MNEs had located their value-adding activities in developing countries like Thailand where costs of operations and resources had been low since the late 1970s. Most Asian countries' international investment was made in countries less developed than their own, typically with lower wage rates and less sophisticated development (Lecraw 1992). After the Asian financial crisis in 1997, there were the recent surges in FDI inflows as shown by figures for the 2000s. For instance, Japan's FDI reached US\$4 303.07 million (more than seven times the value in the 1990s), while Singapore's FDI was US\$3 896.95 million (more than four times that of the 1990s). Such influxes of FDI into Thailand were reactions of these countries' MNEs to take advantage of economic opportunities in making investments at cheaper costs (i.e. buying up local firms in difficulty). Nevertheless, some were forced by the situation to inject more money into their own subsidiaries in difficult times.

Figure 2 exhibits FDI inflows of food processing and agricultural sectors during 1970-2009. On average, FDI value of food processing is substantially higher than that of agricultural sectors, that is, US\$111.29 and 8.17 million respectively (Table 1). Food processing FDI rose significantly over the period, going from US\$4.045 million in the 1970s to US\$329.954

FIGURE 2
FDI inflows into agricultural and food processing sectors



Sources: Bank of Thailand and Thai National Economic and Social Development Board

million in the 2000s. On the contrary, FDI of the agricultural sector evidently flew into Thailand in 1972, amounting to US\$0.245 million. In the 1980s, there was a big jump of agricultural FDI, which increased by 4,389 percent over the amount during the 1970s. This is consistent with the movement of AgriFDI to GDP ratios and AgriFDI share figures of the same period. However, both AgriFDI to GDP ratio and AgriFDI share of total FDI dropped continuously since 1990s onwards. This was caused by the perceived high risk of investment and limited business opportunities in comparison to other sectors (Netayarak, 2008).

Furthermore, FDI inflow gaps between food processing and the agricultural sector grew larger over time in terms of values, FDI to GDP ratio and FDI share. Both Figure 4 and Table 10 clearly illustrate this fact. Clearly, Thailand is doing quite well in attracting FDI in the food industry and will possibly achieve its goal as a major world food exporter and producer in the longer term. However, low FDI in the agricultural sector is quite alarming since it is an indicator of the attractiveness and openness of the sector. Productivity and GDP growth of Thailand's agricultural sector could be enhanced

TABLE 1**Comparison of FDI value, FDI to GDP ratio and FDI share between food processing and agricultural sectors**

Year	FP FDI (US\$ million)	AgriFDI (US\$ million)	FP FDI to GDP ratio (%)	AgriFDI to GDP ratio (%)	FP share (%)	Agri share (%)
1970s	4.045	0.178	0.028	0.001	2.606	0.110
1980s	22.654	7.990	0.043	0.016	2.998	1.076
1990s	88.527	12.036	0.070	0.012	2.120	0.365
2000s	329.954	12.487	0.174	0.007	2.065	0.085
1970–2009	111.295	8.173	0.079	0.009	2.447	0.409

Sources: Bank of Thailand and Thai National Economic and Social Development Board

through, among others, agricultural technologies and knowledge, market access and marketing capabilities from foreign partners. The agricultural sector is very critical as a part of the value chain producing inputs for the food processing industry. Ideally, the two sectors should prosper together; this is unlikely, however, as long as Thailand's policy vigorously promotes and opens up a particular sector (i.e. the food industry) for MNEs to invest in, while the other (i.e. agricultural sector) is quite restricted as shown by the Foreign Business Act B.E. 2542 (1999) – not allowing foreign investors to make their investments in largely primary agricultural production. Another example: Thailand offers a great deal of export promotion incentives and privileges for the food industry while imposing export taxes on rice and other agricultural products⁶ – until 1986 for rice and until 1990 for rubber (Warr, 2008). This kind of policy has resulted in large discrepancies in terms of FDI inflows and sector growth rates.

Table 2 shows FDI inflows in both agricultural and food processing sectors by countries. Japan and the United States of America invested in the agricultural sector more than other countries from 1987–1999 on average. In the 2000s, Hong Kong ranked first in its FDI, totalling US\$5.49 million. However, most of the countries reported here have a tendency towards decreasing their investment in the agricultural sector of

Thailand through time. This may be related to the transparency and complexity of rules and regulations on land ownership, as well as limitations on minority business ownership and poor administration on complicated taxation when compared to other sectors. Structural changes also help to explain this phenomenon in Thailand as the country is trying to boost up competitiveness in manufacturing and high value-added sector by relocating both domestic and foreign resources from the primitive sector with the highest productivity to manufacturing and services sectors.⁷

Turning to FDI in the food processing industry, Japan contributed the most to this sector from 1987 onwards. The United States continued to hold second place (US\$37.05 million) but in the 2000s it was overtaken by the Philippines (US\$53.94 million). Ohmae (1985) emphasized the significance of the “Triad” consisting of the United States, Western Europe and Japan. Developed country firms have high market shares in the Triad countries, which are strategically important to the firms’ growth and success. Additionally, these MNEs, in particular, from the “Triad” become key players in developing countries including Thailand. The empirical evidence of this study supports this stylized fact, illustrated by growing FDI from Japan, the United States, and European countries in the food processing industry over time. Moreover, figures from ASEAN countries such as Singapore and the

⁶ Taxation on these agricultural products has decreased over time. For example, export tax on rice was about 40 percent in the 1960s and there has been no taxation on rice since the mid-1980s.

⁷ Detailed discussion in Warr (2006) and Paopongsakorn (2006).

TABLE 2
**Inflow of foreign direct investment in agricultural and food processing sectors of Thailand
(US\$ million)**

Agri-sector	1987–89	1990s	2000s	FP Sector	1987–89	1990s	2000
Japan	8.74	5.98	1.99	Japan	12.34	22.31	70.50
USA	2.25	2.76	1.59	USA	9.13	16.92	37.05
Malaysia	0.10	0.01	0.00	Malaysia	0.21	0.15	7.50
Singapore	0.45	0.33	0.06	Philippines	0.00	0.04	53.94
Hong Kong	0.56	0.06	5.49	Singapore	3.20	10.87	22.34
Taiwan	4.44	1.70	0.27	Hong Kong	3.27	4.74	9.93
China	0.05	0.05	0.01	Taiwan	3.90	9.09	4.40
Canada	0.05	0.63	0.02	Canada	0.03	0.03	1.28
Australia	0.16	0.02	0.04	Australia	0.10	0.60	3.00
UK	0.13	0.07	0.48	UK	0.93	15.07	19.89
Netherlands	0.30	0.10	0.59	Netherlands	4.93	0.99	12.87
Germany	0.12	0.01	0.47	France	1.23	0.11	2.58
France	0.00	0.03	0.02	Belgium	0.02	0.11	10.58
EU	0.55	0.24	1.58	EU	7.83	17.75	48.11

Source: Bank of Thailand database

Philippines indicate their significance in Thailand. These reflect resource and market seeking behaviour of MNEs from the aforementioned investing countries. They may try to capitalize on their technological capabilities in the future, and take advantage of AFTA as well as favourable investment incentives provided by the Thai Government.

Foreign direct investment is divided into two major forms, namely, wholly owned subsidiaries and joint ventures. Total foreign investment in the manufacturing sector accounts for 11.3 percent of 23 677 firms included in the 1997 industrial census, and 0.7 percent of 457 968 firms included in the 2007 industrial census. Foreign investment in the food processing sector numbers 286 enterprises which is equal to 8.1 percent of total foreign investment in 1996, and 0.2 percent (217 enterprises) of total foreign investment in 2006 (See Table 3). Most foreign investors employ joint-venture as the major mode of entry. Firms with less than and equal to 50 percent of foreign ownership were 66.5 percent in 1996, and 54.8 in 2006. The percentage of minority foreign ownership of firms in the food processing sector is even greater than the average

(of overall industries) accounting for 78.3 percent in 1996 and 77.9 in 2006. Data collected on wholly owned subsidiaries is only available for the year 1996. It was reported that 422 firms or 15.8 percent of total surveyed firms were 100 percent foreign owned firms, of which only 7.7 percent fell to firms in the food industry.

4.2 BOI's promoted foreign investment in the agricultural sector

Historical development

Since the establishment of the Office of the Board of Investment on 21 July 1966, agriculture and the agro-industry have been among the eligible activities for which the Thai Government tries to induce more investment from both local and foreign companies. At the beginning there was no foreign investment in agriculture and the agricultural products sector. Later, in the mid-1970s, foreign investors showed interest in this sector and brought in technology to invest in food ingredients projects. The projects used local agricultural outputs such as palm, cassava, and rubber as raw materials and added value to

TABLE 3
Foreign investment in the food processing sector classified by shareholders

	1996	Share in total	2006	Share in total
Total Foreign Investment (no. of establishments)	2 672		3 160	
> 50% Foreign (no. of establishments)	894	33.5	1 428	45.2
≤50% Foreign (no. of establishments)	1 778	66.5	1 732	54.8
Total Foreign Investment in food processing sector (no. of establishments)	286		217	
> 50% Foreign (no. of establishments)	62	21.7	48	22.1
≤50% Foreign (no. of establishments)	224	78.3	169	77.9

Source: Report Of the 1997 and 2007 Industrial Censuses, Whole Kingdom, Thailand's National Statistical Office, Office of the Prime Minister

their products (BOI, 2006). Since then, foreign investors' confidence has improved as shown by their continuous increased investments in this sector up to the present.

Although foreign investment in the agricultural sector promoted by the BOI has increased markedly to date, it has a relatively small share in total foreign investment compared with other sectors. Foreign direct investment in agriculture and agricultural products has concentrated in export-oriented activities, particularly in food processing and the agro-industry. Investors have largely operated in the form of joint ventures. Major investing countries have come from Asia, notably Japan. A more detailed discussion of the extent and nature of foreign investment in the agricultural sector is provided below.

Facts and figures

Over the period of 1970-2006, the value of foreign investment in agriculture and agricultural products was 291 901.7 million Baht; accounting for 5.3 percent of the total BOI's promoted foreign investment. The number of approved projects in this sector is 1 625 projects, accounting for 11.4 percent of the total number of approved foreign projects. The proportion of numbers of agricultural projects (11.4 percent) is not markedly different from other sectors but its investment value is quite small (5.3 percent). Most of the projects are small-scale with less than 50 million Baht of investment. As a result, the sector's share in total foreign investment is

relatively small, ranking sixth out of seven BOI-promoted sectors (Table 4).

The value of foreign investment in the agriculture and agricultural products sector has generally increased over time despite some fluctuations, as shown by the bar chart in Figure 5. Although the sector's share in total foreign investment is relatively small, the average annual growth rate of its real investment value during 1974-2009 was 69.57 percent. Similarly, the number of approved projects has also risen with a sharp peak in 1988 (as shown by the solid line in Figure 3) which coincided with the overall FDI inflows and Thailand's economic boom (Warr, 2005). The average growth rate of the number of projects was 30.71 percent per annum, much less than its investment value. Thai employment generated by these foreign investments also shared an upward trend with an average growth rate of 79.74 percent per annum. Note that there was no foreign investment in the agricultural sector prior to 1974⁸.

When considering foreign investment in the agricultural sector as a percentage share of total foreign investment, Figure 4 shows that its share (both in terms of investment value and number of project) has declined markedly since 1975. During 1974-1976, the agricultural sector has dominated with more than 60 percentage share

⁸ This is perhaps due to fact that with regard to the agricultural sector during the early 1970s it was not in the interests of FDI to apply for BOI's privileges.

TABLE 4

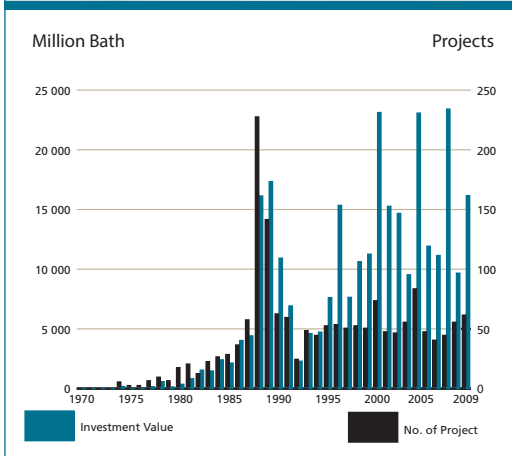
Foreign investment approved by BOI classified by sectors, 1970-2009

Sector	No. of	Share in	Investment	Share in
	Projects	Total (%)	(mill Baht)	Total (%)
Agriculture and agricultural Products	1 625	11.4	291 901.7	5.3
Minerals and ceramics	558	3.9	516 657.5	9.4
Light industries/textiles	2 015	14.1	266 847.8	4.8
Metal products and machinery	3 143	22.0	897 721.4	16.3
Electric and electronic products	3 096	21.7	1 102 796.4	20.0
Chemicals and paper	2 049	14.4	1 400 128.1	25.4
Services	1 784	12.5	1 031 745.0	18.7
Total	14 270	100	5 507 797.9	100

Source: International Affairs Bureau, BOI. Note: 1) Foreign Investment projects refer to projects with foreign capital of at least 10 percent. 2) Agriculture and agricultural products sector include eligible activities in primary production, food processing, manufacturing and services relating to agriculture and agricultural products.

FIGURE 3

Foreign investment in the agriculture and agricultural products sector approved by BOI during 1970–2009

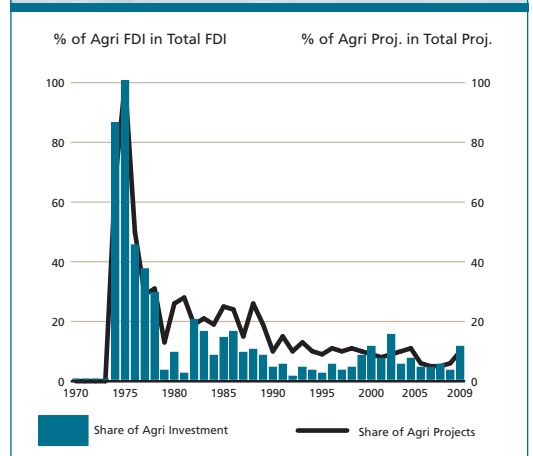


Source: International Affairs Bureau, BOI. Note: There is no investment in this sector prior to 1974. The investment value shown in this figure is in real terms, the nominal value was converted into real using GDP deflator.

in total foreign investment. This is consistent with the agricultural growth period – 1960s-1970s – driven mainly by expansion of land frontiers and heavy public investment in roads and irrigation (Poapongsakorn, 2006). After 1976, its share fell significantly during the early 1980s and has

FIGURE 4

Shares of foreign investment in agriculture and agricultural products in total foreign investment during 1970–2009



Source: International Affairs Bureau, BOI.

continued to decline until the present. This is also in accordance with the period of agricultural decline, from 1980 to mid-1990s, categorized by Poapongsakorn (2006, pp.5-18). In addition, the declining share of FDI corresponds with the decreasing agricultural GDP relative to those

of non-agricultural sectors.⁹ The decline in agricultural growth was in line with structural change towards an industrialized economy as well as many external factors, particularly a worldwide depression in major agricultural product prices.

Characteristics of BOI's Promoted Foreign Investment

The majority of foreign investments promoted by the BOI are in the form of joint venture between local Thai investors and foreign partners. Particularly with regard to projects in agriculture, animal husbandry and fisheries under List One of the Foreign Business Act B.E. 2542 (1999), Thai nationals must hold shares totalling not less than 51 percent of the registered capital. As shown in Table 5, in terms of number of projects, foreign investments in agriculture and agricultural products during 1970-2009 are joint ventures, accounting for about 82 percent of the total, while the rest are totally foreign owned projects, mostly in agroprocessing activities that are not restricted by the law. In terms of investment value, joint venture projects account for 78 percent, whereas wholly foreign owned projects account for 22 percent of the total foreign investment in this sector.

⁹ The relative decline of the agricultural sector has been explained by several studies, for example, Siamwalla, 1996; Martin and Warr, 1994; Coxhead and Plangraphan, 1999.

The majority of these foreign projects are export-oriented. More than 80 percent of their products are produced to serve export markets. Specifically, there are 1 064 projects out of 1 625 projects that produce for exports. This accounts for 65.5 percent of the total number of foreign approved projects in the agricultural sector. The total investment value of export-oriented projects is 169 045 million Baht, sharing 58 percent of the total foreign investment value in this sector. This is in line with the export-oriented industrial policy that Thailand has pursued since 1972. The majority of the export-oriented projects were concentrated in the manufacture of the natural rubber products, which are one of Thailand's top export products. Other activities that also attract a large number of export-oriented foreign investments include the manufacture or preservation of food or food ingredients, using modern technology. This is because rubber products and food processing are two major activities with large export opportunities. The Board of Investment's promotional packages, which includes an exemption of import tariffs on machinery and equipment, is perhaps deemed attractive to export-oriented rather than locally served projects.

Export-oriented foreign investment has generally increased through time, both in terms of number of projects and investment value (Table 6). During the 1970s the value of export-oriented foreign investment was still less than a

TABLE 5
Foreign investment in the agriculture and agricultural products sector approved by BOI classified by shareholders

	1970-2009	Share in total (%)
Total Foreign Investment (no. of projects)¹	1 625	
- 100% Foreign (no. of projects)	304	18.71
- Joint venture (no. of projects) ²	1 321	81.29
Total Foreign Investment Value (million Baht)	291 901.7	
- 100% Foreign (million Baht)	64 785.9	22.19
- Joint venture (million Baht)	227 115.8	77.81

Source: International Affairs Bureau, BOI. Note: 1) Foreign Investment projects refer to projects with foreign capital of at least 10 percent. 2) Joint venture projects refer to joint projects between local Thai investors and foreign partners with foreign capital of at least 10 percent.

TABLE 6
Export-oriented FDI in the agriculture and agricultural products sector

	1970s		1980s		1990s		2000s	
	No. of	Investment	No. of	Investment	No. of	Investment	No. of	Investment
	Project	(m.Baht)	Project	(m.Baht)	Project	(m.Baht)	Project	(m.Baht)
Export-oriented	13	317.8	417	35 404.0	313	50 675.1	321	82 648.2
Others	11	775.9	159	15 316.1	171	31 368.3	220	75 396.3
Total	24	1 093.7	576	50 720.1	484	82 043.4	541	158 044.5

Source: International Affairs Bureau, BOI.

Note: Export-oriented foreign investment projects refer to projects which export their products of at least 80 percent.

half of total foreign investment. It has begun to dominate the overall foreign investment in this agricultural sector since the 1980s. Nonetheless, in terms of number of projects, foreign investment was roughly the same during the 1970s and reached its peak in the 1980s, during which time Thailand had experienced an industrial boom. This is partly attributed to the fact that Thailand had relatively cheap labour and raw materials at that time. Export-oriented companies had used Thailand as their production base for simple food processing and agricultural products.

With respect to major investing countries, Japan has been the largest investing country in the agricultural sector over the entire period, followed by the United States, Malaysia, Taiwan Province of China and China. These top five countries account for 63.5 percent of the total foreign investment value in this sector (Table 7).

In terms of number of projects, Japan is also ranked number one, followed by Taiwan Province of China, Malaysia, the United States and China. Their share in the total number of approved foreign projects in this sector is 68 percent. Besides these top five countries, other major investing countries include Singapore, Hong Kong, Netherlands, United Kingdom, Australia, France, Germany, Canada and Luxembourg.

Considering by subperiods (Table 8), Japan, Singapore, United Kingdom and Taiwan Province of China were major investors during the 1970s. In later sub-periods, Japan and Taiwan Province of China still played a dominant role while the United Kingdom and Singapore invested relatively less compared with other countries. From the 1970s to 2000s, most countries had increased their investment in the agricultural and agricultural products sector. However, some

TABLE 7
Top 5 investing countries in the agriculture and agricultural products

Country	No. of Projects	Investment value (million Baht)	Rank of No. Projects	Rank of Investment
Japan	328	83 084.10	1	1
USA	159	29 390.90	4	2
Malaysia	218	28 529.00	3	3
Taiwan	300	23 638.80	2	4
China	98	20 820.80	5	5

Source: International Affairs Bureau, BOI.

TABLE 8**Promoted FDI classified by major investing countries, 1970–2009 (million Baht)**

	1970s	1980s	1990s	2000s
Japan	12.4	664.1	2 220.0	10 158.2
Taiwan	6.1	1 187.1	1 018.0	1 970.5
Malaysia	-	309.0	1 752.0	2 059.4
USA	2.2	644.4	1 932.3	1 401.7
Netherlands	-	351.4	1 174.8	184.1
Singapore	10.0	237.9	557.2	779.5
Hong Kong	-	658.9	154.9	589.5
Australia	-	224.9	749.7	107.3
China	1.2	344.3	309.2	322.5
Luxembourg	-	748.9	-	-
UK	7.3	155.9	195.3	281.2

Source: International Affairs Bureau, BOI

countries have slowed down their investment during 2000–2009; for example, the United States of America, the Netherlands and Australia. This is in line with the declining trend of FDI in the agricultural sector.¹⁰ It is worth noting that Japanese FDI has increased remarkably over time; furthermore, Japan is not only the largest investor in the agricultural sector but also in other manufacturing sectors, notably automotive and electronic products.

Decomposition of BOI's Promoted Foreign Investment

Disaggregating the agricultural sector's investment, BOI statistics (Table 9) reveal that foreign investment in primary agricultural production (including crops, livestock, fisheries and forestry) accounts for only 8 percent of the sector's investment value whereas the share of food processing accounts for 36.4 percent. More than 50 percent of the foreign investment value is concentrated in the manufacturing of other agricultural products and agricultural services. In terms of number of projects, primary agriculture

accounts for about 10 percent and those of food processing and other agricultural products and services are about 35 percent and 55 percent, respectively.

The above findings suggest that international investments in the agricultural sector have concentrated in food processing and the manufacture of agricultural products. This is in line with the fact that Thailand has become industrialized with more emphasis on agro-industry and that the BOI is the government agency that principally promotes FDI in the manufacturing and service sectors. However, BOI-offered incentives and privileges may not be directly relevant to primary agriculture; in particular, primary agricultural production is under List One of the Foreign Business Act B.E. 2542 (1999), in which Thai nationals must hold shares totalling not less than 51 percent of the registered capital. This regulation more or less prevents foreign involvement in the agricultural sector. Moreover, the majority of FDI in this sector is export-oriented thereby investing in value-added agricultural products, using primary agricultural output as raw materials, to serve the world market.

Within primary agriculture, crops occupy the largest share in terms of number of projects,

¹⁰ Because of time and data constraints, this study was not able to identify the particular reasons for the decline in these countries' investments.

TABLE 9**Foreign investment in the agriculture and agricultural products sector approved by BOI classified by subsectors during 1970–2009**

Subsectors*	Total		Share in total (%)	
	No. of project	Investment value (million Baht)	No. of project	Investment value (million Baht)
Crops	61	4 015.6	3.75	1.38
Livestock	40	13 994.0	2.46	4.79
Fisheries	53	5 309.5	3.26	1.82
Forestry	3	245.5	0.18	0.08
Food processing	571	106 231.2	35.14	36.39
Non-food agricultural products	797	130 580.5	49.05	44.73
Others	100	31 525.4	6.16	10.81
Total	1 625	291 901.7	100.00	100.00

Source: Authors' calculation based on data from the International Affairs Bureau, BOI. *Crops include activity 1.1 and 1.2, livestock includes activity 1.4 and 1.5.1, fisheries include activity 1.5.2 and 1.8, forestry is activity 1.24, food processing includes activity 1.11, and manufacture of agricultural products include activity 1, 1.3, 1.9, 1.10, 1.14-1.16, 1.20, 1.25. Others include post-harvesting and other supporting agricultural services, under activity 1.7, 1.13, 1.17-1.19, 1.21-1.23, 1.26-1.30

followed by fisheries, livestock and forestry. Nonetheless, in terms of investment value, the livestock subsector accounts for the largest share of foreign investment, followed by fisheries, crops, and forestry. This is because the majority of approved livestock projects exist on a relatively large scale compared with crop projects that do not require as much investment. As shown in Table 9, the total value of foreign investment in livestock during 1970-2009 is 13 994 million Baht and those of fisheries, crops and forestry is 5 309.5 million Baht, 4 015.6 million Baht, and 245.5 million Baht, respectively.

There has been a changing investment structure within the primary agricultural production activities, as shown in Table 10. During the early periods (1970-1979), crops were the major recipient of foreign investment. Livestock and fisheries received moderate investment while forestry received none at all. The crop projects that were approved in early days were fast growing tree cultivation and pineapple cultivation projects. In more recent years, investment has shifted to the production of hybrid corn seeds, mushroom, and hydroponic vegetables. This is in line with agricultural diversification. There has been a changing production structure in Thai agriculture in tandem with the changing

comparative advantage and changing demand pattern toward high value-added and safe products (Poapongsakorn et al., 2006). Since the 1980s, crops have received less investment while livestock and fisheries have gained more foreign investment. This is perhaps due to the growing export demands for poultry and fisheries. The amount of investment required in the crop sector is also relatively smaller than that for livestock and fisheries. There was no investment in forestry plantation prior to 2004, which is consistent with the minor role of forestry in the Thai agricultural GDP; consequently, there has been no foreign interest in this activity. The plantation projects approved from 2004 are in line with the public awareness over the extinction of forests, which attracted foreign investment in this activity.

The livestock projects approved by the BOI comprise livestock breeding and husbandry, mainly in swine and broiler chicken production. Fishery projects involve aquatic husbandry and deep sea fisheries, mainly prawn aquaculture. Crop projects are under the BOI's eligible activities categorized as plant propagation and development, and hydroponics cultivation. They are predominated by vegetables, fruits and field crops production. Foreign investment in forestry came mainly from a few forest plantation

TABLE 10
Foreign investment in the agriculture and agricultural products sector approved by BOI, classified in subsectors

Subsectors	1970s		1980s		1990s		2000s	
	No. of project	Investment (million Baht)	No. of project	Investment (million Baht)	No. of project	Investment (million Baht)	No. of project	Investment (million Baht)
Crops	2	433.0	18	728.4	22	1 298.0	19	1 556.2
Livestock	1	10.4	-	-	16	2 329.1	23	11 654.5
Fisheries	2	36.0	35	2 867.2	12	1 957.3	4	449.0
Forestry	-	-	-	-	-	-	3	245.5
Food-processing	6	137.0	178	20 069.3	166	22 909.3	221	63 115.6
Agri Products	10	352.8	318	25 468.6	242	43 697.6	227	61 061.5
Others	3	124.5	27	1 586.6	26	9 852.1	44	19 962.2

Source: Authors' calculations based on the data from the International Affairs Bureau, BOI

projects (teakwood, sandalwood and argarwood). Approval of projects in crops, livestock and fisheries has taken place since the mid-1970s while that of forestry has just begun in recent years (2004-2006).

The food processing subsector has received a relatively large number of the BOI approved foreign investment compared with primary production. The promoted projects include a variety of food processing products such as rice crackers, noodles, fruit juices, canned seafood, frozen foods, dried fruits and vegetables, etc. The first and oldest project in the BOI record was in the food processing subsector: a project producing Chinese cake made from rice and flour, which was approved in 1974. This project no longer receives BOI tax privileges but it is still active and is located in Chonburi province. In recent years, a number of approved projects produce ready meals which are in line with the changing consumer demands for faster and easier lifestyle.

Other approved projects are the manufacture of agricultural products and supporting agricultural services, which include a large number of agro-industry products, post-harvesting activities and supporting services. For example, the manufacture of rubber products has received a number of foreign investments from the past up to the present. The manufacture of oil

or fat from plants or animals also attracts many foreign investments. Agricultural services mainly include grading and packaging of agricultural products, silo and crop drying, and cold-storage.

5. Impacts of FDI in Thai agriculture

5.1 Overview of FDI Impact

This section presents empirical evidence and discusses the impacts of FDI on the food industry's employment, export, output and value added. Data used for the analysis are from the Thai National Statistical Office. The food industry is divided into the four-digit International Standard Industrial Classification of All Economic Activities (ISIC) in order to see the detailed impact on its subsector. Data on some subsectors are not provided as there is no evidence of foreign ownership. In addition, the Thai National Statistical Office cannot publish data of firms in 1551 ISIC code (distilling, rectifying and blending of spirits; ethyl-alcohol production from fermented materials), or the 1553 ISIC code (manufacture of malt liquors and malt) because of disclosure rules and regulations which are applicable when the number of firms is less than three.

FDI and employment

The impact of FDI on employment according to the 2007 industrial census was positive. Official data show that 3 160 firms with foreign shareholders employed in total 983 778 employees (25.76 percent of total employment), generating an income of 142 426.05 million Baht (33.05 percent of total remuneration). Although firms with foreign ownership were only 0.7 percent of the entire manufacturing sector, their aggregate impact on employment was one-fourth of total employment and one-third of total employees' income. Foreign Direct Investment impact on Thailand's food industry also prevailed: there were 82 361 employees (13.34 percent of the total industry) employed by these foreign firms. These employees earned 9 605.15 million Baht, accounting for 15.67 percent of the total industry. It is noticeable that the positive effect on the employment share of the food industry is quite modest compared to the average figure of all manufacturing industries. This may be due to the fact that these foreign firms rely on the technology intensive production rather than labour intensive one.

Among others, fish and fish products processing and preserving gained the highest employment share of foreign firms in the food industry (19 648 employees) followed by fruit and vegetables processing sector with 16 069 employees. Examples of subsectors receiving the least benefit on employment were dairy products manufacturing (607 employees) and malt liquors and malt manufacturing sectors. Most of the foreign firms seem to invest a great deal in subsectors that offer them competitive advantages in terms of abundant and low cost of inputs. These firms can achieve their low cost targets by exploiting Thailand's resources and, at the same time, utilizing their internal strength and capabilities such as marketing and technological capabilities. Notably, some foreign firms choose to invest in subsectors that have know-how, even though they are among Thailand's weakest sectors (technology-wise). For instance, 19 firms invest in the dairy product manufacturing subsector. As Thailand is neither a dairy product exporting country nor a producing country, it would seem that these foreign firms invest in the sector in order to reap the benefits of a

huge, untapped domestic market. Despite the fact that positive employment gain is not much, the potential for technological transfer is great. This may help improve Thailand's food sector as a whole especially in the subsectors which lack expertise and know-how through technological transfer processes between these foreign firms and Thai partners as well as relevant parties (i.e. workers and farmers).

FDI and export

The majority of foreign firms (2 040 firms or 64.56 percent) set up businesses/plants in Thailand as production bases for export. Foreign Direct Investment contributed to approximately 56.44 percent of total export value, amounting to 1 398 794.83 million Baht. This is a large proportion considering that it is derived from only 0.45 percent of total establishments (both local and foreign firms). Approximately 24 percent of these firms (758 out of 3 160 firms) exported more than 80 percent of total output. In 2006, the export share of foreign firms in the food industry was about 21.84 percent of total industry, and amounted to 62 612.79 million Baht. Two most prominent subsectors were 1) Processing and preserving of fish and fish products; and 2) Manufacture of other food products accounting for export values of 17 916.85 and 17 438.38 million Baht respectively. At the other end of the spectrum, up to 36.87 percent of these foreign firms (80 firms in total) did not get involved in exporting their food products at all. Obviously, they mainly focused on the domestic market. For instance, the dairy product manufacturing sector export value was only 2.85 million Baht, as most of the final output was sold to customers in Thailand. The greatest number of foreign firms in Thailand – totalling 644 firms (31.57 percent) – exported their products to Japan. The United States, Singapore and European countries were also among the most popular/preferred export destinations of these firms. There were 257 (12.60 percent), 242 (11.86 percent) and 232 firms (11.37 percent) respectively putting their efforts on the aforementioned target markets.

Main export markets for foreign firms in the food sector comprised similar countries to the

manufacturing sector, except for China which ranked third in its importance by numbers of firms' choices of export markets, followed by Singapore and European countries. This may be driven by the large size of the Chinese market, FTAs between Thailand and China as well as AFTA. Not surprisingly, these countries were also major sources of Thailand's FDI in agricultural and food processing sectors. Their respective foreign firms have strong business linkages and marketing channels in their homeland while exploiting low cost advantages and abundant resources of the host country. This is a typical combined characteristic of resource seeking and efficiency seeking FDI. As a result, the authors observe that a great number of firms export the final output back to their home countries.

FDI and output and value added

In 2006, the share of foreign firms in the manufacturing sector's output was 43 percent accounting for 3 140 965.11 million Baht, whereas foreign firms' contribution to manufacturing value-added was 42.27 percent or 743 405.62 million Baht. The impacts of Foreign Direct Investment on output and value added were greater than its impacts on employment as shown by lower employment share of foreign firms (only 25.76 percent). However, the positive effect of FDI was greatest for Thailand's export with the highest foreign share of 56.44 percent of total export value.

The same pattern of results is repeated in FDI impacts on the food industry's output and value added. The degree of FDI positive impact seemed high on export, with an export share of foreign firms of 21.84 percent in comparison. Foreign firms were responsible for producing 13.37 percent of total output (150 889.52 million Baht) while generating total food processing value added of 15.50 percent of total industry (38 030.87 million Baht). At subsector level, soft drinks and mineral water manufacturing sector generated the highest output valued of 29 561.79 million Baht but its value added was quite low amounting to only 6 140.82 million Baht. The motivation of foreign firms undertaking FDI in this subsector was to seek markets and to maintain access to local markets with promising economic growth like Thailand.

This was supported by marginal export value of 2 014.77 million Baht since most of the outputs were produced for customers residing in Thailand. Interestingly, foreign manufacturers of other food products (1549 ISIC code)¹¹ did well in terms of both their output share and value added share accounting for 25 833.09 million Baht (28.02 percent of total subsector) and 12 621.83 million Baht (41.79 percent) respectively. These figures were higher than those of the top export subsector such as processing and preserving of fish and fish products.

5.2 Contributions of BOI's promoted FDI

The international investments through the BOI promotion have contributed to the Thai economy in several ways. The most obvious gains are in terms of employment generation and export earnings. Overall, foreign investment in this sector has generated a total of 369 514 jobs for Thai workers during 1970-2009. As shown in Table 11, the foreign projects have generally raised local employment over time despite a small reduction during the last decade. Over the entire period, the

TABLE 11
Employment generated by foreign investment
in the agriculture and agricultural products
sector during 1970–2009

Year	Investment value (million Baht)	No. of project (project)	Thai employment (person)
1970s	1 093.7	24	6 306
1980s	50 720.1	576	111 396
1990s	82 043.4	484	130 554
2000s	158 044.5	541	121 258
Total	291 901.7	1 625	369 514

Source: International Affairs Bureau, BOI

¹¹ Manufacture of other food products *not elsewhere classified* such as manufacture of soups and broths; spices, sauces and condiments; foods for particular nutritional uses; frozen meat, poultry dishes; canned stews and vacuum-prepared meals; herb infusions; extracts and juices of meat, fish, crustaceans or molluscs.

TABLE 12
Employment generated by foreign investment in the agriculture and agricultural products sector classified by subsectors during 1970–2009

Subsectors*	Thai employment person	Share in total %
Crops	10 624	2.88
Livestock	10 391	2.81
Fisheries	6 094	1.65
Forestry	314	0.08
Food processing	173 220	46.88
Agricultural products	146 528	39.65
Others	22 340	6.05
Total	369 514	100.00

Source: Authors' calculations based on the data from the International Affairs Bureau, BOI. *Crops include activity 1.1 and 1.2, livestock includes activity 1.4 and 1.5.1, fisheries include activity 1.5.2 and 1.8, forestry is activity 1.24, food processing includes activity 1.11, and manufacture of agricultural products include activity 1, 1.3, 1.9, 1.10, 1.14-1.16, 1.20, 1.25. Others include post-harvesting and other supporting agricultural services, under activity 1.7, 1.13, 1.17-1.19, 1.21-1.23, 1.26-1.30.

average annual growth rate of local employment is almost 80 percent per year, which is quite remarkable. The growth rate was particularly high comparing the 1970s to the 1980s.

When considering at subsector level (Table 12), food processing activities have created the largest number of jobs for Thai workers, totalling 173 220 persons which accounts for 47 percent of total number of job generated. This is mainly due to the concentration of foreign investment in this subsector. The employment under the manufacture of agricultural products accounts for about 40 percent while that of primary agriculture (including crops, livestock, fisheries and forestry) accounts for 7.4 percent. The small share in the primary agriculture is consistent with the relatively small investment in these activities.

With regard to the primary agriculture, the employment generated by crops and livestock are similar despite the fact that the overall value of investment in the livestock subsector is much higher. This reflects the nature of livestock production that is less labour intensive compared

TABLE 13
Employment generated by export-oriented FDI in the agriculture and agricultural products sector (persons)

	1970s	1980s	1990s	2000s
Export-oriented	1 995	95 715	94 957	86 971
Others	4 311	15 681	35 597	34 287
Total	6 306	111 396	130 554	121 258

Source: International Affairs Bureau, BOI.

with crops. Foreign companies have generally employed modern technology as required by the BOI's regulations.

Another obvious contribution is export earnings. As pointed out in section 4.2, the majority of foreign investment in the agricultural sector under the BOI scheme was export-oriented. More than 80 percent of their products were shifted abroad thereby boosting Thailand's agricultural exports. Expanding market size through export helps achieve the economies of scale that bring about real cost reductions thereby increasing productivity (Harberger, 1996). Exports also enhance market competition in the sense that export-oriented firms have to adjust to remain competitive in world markets by adopting new technology, marketing know-how and improving production efficiency. In the case of processed foods for exports, FDI has played a major role in the successes of these export industries (Netayarak, 2008). At macro level, these export gains help raise the country's GDP and hence productivity and living standards. Export-oriented FDI is also the dominant source of local employment since the 1980s up to the present, as shown in Table 13. Regarding the impact of FDI on agricultural growth and productivity the empirical evidence is limited as the presence of FDI in the agricultural sector is small (Furtan and Holzman, 2004, Sattaphon, 2006). Sattaphon (2006) found evidence that Japanese FDI had a positive impact on stimulating the growth process in Thai agriculture but the effect was not large.

FDI and technology transfer

FDI has been widely recognized as an important channel bringing in capital, new technology and know-how that can enhance the technological capability of the host country firms. However, these benefits – especially the technology transfer effect of FDI – varied among empirical case studies. Kohpaiboon (2006) investigated linkages between FDI and technology spillover using Thai manufacturing as a case study, some of which include food products, beverages, rubber and wood products. He found that gains from FDI technology spillover are conditioned by the nature of the trade policy regime, meaning that to maximize gains from FDI technology spillover, a liberalizing investment policy has to go hand-in-hand with liberalizing the trade policy (Kohpaiboon, 2006). Although his study did not specifically measure the gains from FDI technology transfer it has important policy implications. The implication from his study is that agricultural trade policy in Thailand has to be liberalized to induce the type of FDI inflows that are most likely to introduce technology spillover. According to Warr (2008), agricultural trade policy in Thailand is relatively liberal. This implies the relatively liberal agricultural trade policy has somewhat induced FDI with technology transfer. Since the extent of FDI in the Thai agricultural sector is quite small it is likely that the technology transfer impact is not large.

In Thailand, technology transfer to agriculture occurs mostly through non-FDI channels (Kohpaiboon, 2006). Private companies, particularly the Charoen Pokphand (CP) Group, have played an important role in transferring technology to farmers.¹² However, Netayarak (2008) found evidence that FDI projects have brought about new knowledge and technologies which were diffused very well to Thai farmers, entrepreneurs and labourers. In particular, the Thai agro-industries have benefited greatly from the technology transfer during the past decades.

Moreover, Netayarak (2008) observed increasing trends of agricultural R&D and agricultural technology transfer during 1994-2005. Since the majority of FDI are in the form of joint venture and export-oriented, R&D funds were financed by parent companies or subsidiaries abroad (Netayarak, 2008). In particular, foreign partners played a major role in choosing processing techniques that suit foreign demand, notably in processed agricultural product like chicken, pineapples and tiger prawns. Foreign companies also brought in seeds and animal breeds that were adapted with local conditions and benefited Thai agriculture (Suphannachart and Warr, 2009).

6. Conclusions and policy recommendations

The extent of international investment or FDI in the agricultural sector of Thailand is relatively small compared with other sectors. The majority of agricultural FDI is in the food processing sector and takes the form of joint venture producing mainly for export markets. The extent of FDI in primary agriculture is particularly small. This is perhaps due to a mix of several reasons, notably the rule of land ownership that prevents foreigners from owning land; uncertainty in export markets due to controls and restrictions on primary agricultural exports; and the enforcement of the Foreign Business Act that constrains the participation of foreign investors in primary agricultural production. There are larger investment opportunities in food processing and the agro-industry. Despite the limited extent of FDI, evidence of both overall FDI inflows and BOI's promoted projects suggests that the past investments have contributed to agricultural development and the overall economic expansion.

There are many benefits of FDI to the Thai agricultural sector in terms of output, value added, export and employment expansions as well as technological transfer. All these lead to a more sustainable agricultural development. While the export-led industrialization policy generates more benefits to the industrial sector than to the agricultural sector, IIAs like FTAs and BITs including

¹² The Charoen Pokphand (CP) has been instrumental in the research and development of broiler and shrimp cultivation, seed technology and a new variety of freshwater fish (Poapongsakorn, 2006, p.35)

BOI investment promotion policy are good tools encouraging foreign investors to invest in the agricultural sector. However, the Thai Government should effectively disseminate information and arrange in-depth consultation sessions with relevant parties including Thai firms and farmers prior to any changes or new development of policy. By so doing, it would help reduce short term shock and also prepare them for adjustment. There are large market and investment opportunities still to be tapped by Thai firms doing businesses in the agricultural sector. Hence the importance of appropriate internationalization strategies and the development of internal company and human resource strengths to enable Thai firms, labourers and farmers to capitalize on the increasing demand for food and to survive in very tight competition for FDI in the world market.

The Thai Government should try harder than before to facilitate FDI inflows and eliminate FDI's barriers to entry through deregulation and liberalization measures. This can be done by developing a greater number of international investment treaties such as FTAs. In terms of quality and coverage/scope of these IITs, the Thai Government should concentrate on developing comprehensive BITs and FTAs by incorporating provisions of investment promotion, liberalization as well as protection in investment chapters. A further step to enhancing the image of Thailand as an attractive international investment destination would be if its investment policies were geared towards a greater degree of openness and transparency. Public sector reform is in great need of increased transparency and the reduction in administration processing and approval time and costs. The efficient and integrated management of agricultural, industrial, trade and investment policies should be supported as a way to reduce production and operation costs and increase profitability of investment in Thailand. Furthermore, the relevant Thai Government agencies should collaborate in developing strategic, attractive and responsive investment promotion packages including grants to foreign investors' requirements (i.e. in terms of financial and human resource development), especially those prospective investors aiming to make investments in the agricultural sector.

While partnerships between foreign firms and Thai firms in the agricultural sector (most obvious in the food processing sector) are strong and increasing in numbers via joint ventures, linkages between MNEs and Thai farmers are expanding via contract farming arrangements. Such linkages should be maintained and established as agricultural production is a very important part of the value chain. Thai farmers often lack financial resources, skills and high-level agricultural technology. The agricultural productivity could be enhanced through the provision of training, new technological innovation and financial assistance. As it is now, most MNEs employ contract farming systems by supplying seeds, fertilizers and know-how/new technology to farmers. Such relationships and cooperation should be broadened and strengthened via activities such as research and development. Therefore, the Thai Government should develop a holistic policy to promote a higher level of FDI in research and development, as well as agricultural human resource development requiring concerted efforts by various government agencies, for example the BOI, the Ministry of Agriculture and Cooperatives and the Ministry of Science and Technology. Additionally, a better profit-sharing system (e.g. profit and loss sharing loans) should be put in place to increase Thai farmers' income and improve their well-being. All these efforts would generate numerous benefits to agricultural development as a whole.

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Uganda:

Analysis of private investment in the coffee, flowers and fish sectors of Uganda¹



1. Introduction

In Uganda, like other African countries, foreign investment in commercial agriculture though growing since 2000, is still relatively low. Most of the companies engaged in commercial agriculture – about 70 percent of the total – are domestic-owned. This is also illustrated by the small number of planned projects in the sector that were registered by the Uganda Investment Authority (UIA) between 1992 and 2008. A total of 124 projects were registered in the sector and they account for just 3.5 percent of all projects registered by the Authority. About half of the registered agricultural projects were in four subsectors: fish, general farming, flowers, and forestry. The majority of the planned foreign projects in commercial agriculture were from investors from three countries: India (21 percent), United Kingdom (16 percent) and Kenya (10 percent).

FDI flow to commercial agriculture are concentrated in: the supply of agricultural chemicals and fertilizers; coffee processing and export; floriculture; and fish processing and export. Nevertheless, the data on the largest taxpayers during 2005/2006 do not show a dominance of foreign-owned companies in the agricultural sector in general. The total number of companies ranked among Uganda's top 50 taxpayers is evenly split between domestic and foreign-owned. Foreign-owned companies in coffee and flowers had a lower value of assets but higher sales than their domestic counterparts in 2007.

This chapter focuses on private investment in three value chains based on their importance for the Ugandan economy (in terms of export earnings). These are (i) coffee – the main export commodity, (ii) fish – the main non-traditional export commodity; and (iii) flowers and cuttings – among the top three non-traditional export commodities in 2007. The first and second are fish and maize, respectively. Maize will not be analysed as an export commodity because there is no foreign-owned companies involved in this subsector. Most of the maize produced is sold by domestic enterprises to the World Food Programme (WFP).

2. Foreign direct investment flows in agriculture

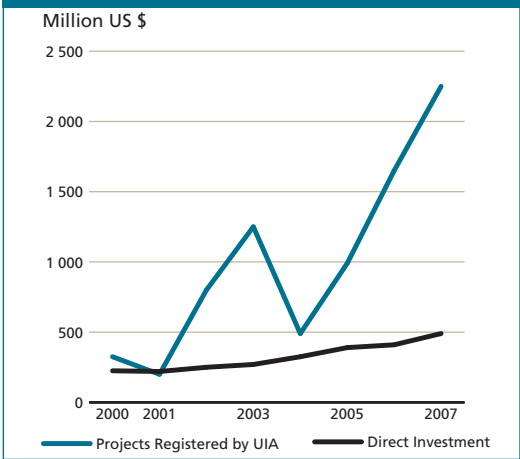
Foreign direct investment inflows into Uganda have been on an upward trend since the 1990s, from US\$25 million in 1991² to US\$2.2 billion in 2007 (UIA, 2008). Similarly, the total value of planned foreign projects registered by the Uganda Investment Authority (UIA) increased by 14.6 percent per annum from US\$270.5 million (1992) to US\$2.38 billion (2008), in line with the increased number of registered planned projects. A total of 3 513 foreign-owned projects were registered by the UIA between 1992 and 2008. The UIA's mandate includes maintenance of a database of all foreign projects.

The value of FDI is highly correlated with the value of planned projects registered by the UIA between 2000 and 2007. The correlation coefficient between the value of FDI and the value of planned projects registered by the UIA in the period 2000 to 2007 is 0.79 (Figure 1).

¹ This chapter is based on a research report produced for FAO by Alice K. Gowa, Consultant.

² Obwona, Marios V., 1996: 8, as cited in the UIA Database from July 1991 to December 1995.

FIGURE 1
Value of FDI and projects registered by
UIA in Uganda, 2000–2007

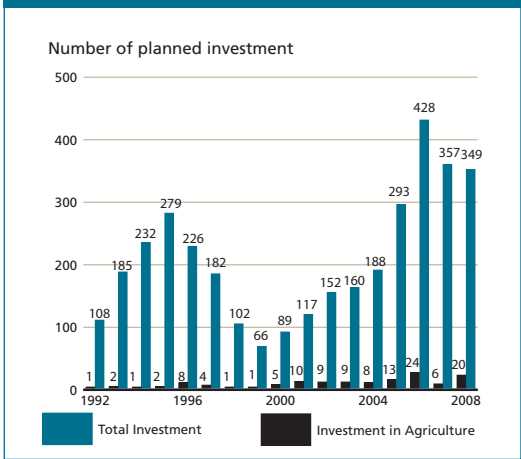


Source: 2008 Statistical Abstract; UIA Database.

Nevertheless, it was noted that the values of actual FDI for a given year were much lower than that of the planned projects for that year. The range was 16 percent at the lower end, and 81 percent at the higher end. This is expected as not all the planned projects are implemented and, in some cases their value may be either underestimated or over-estimated. Our analysis shows that the average value of FDI is 40 percent of the value of planned foreign investment. The median value is 32 percent.

The latest published data on foreign direct investment in agriculture were for the year 2000; they show that the market value of FDI in agriculture, forestry and fishing was very low at US\$406 548 or 0.06 percent of total FDI stocks (Uganda: Bank of Uganda, 2002). The sector, however, has attracted increasing investment since 2000. The number of planned projects registered by the UIA between 2000 and 2008 was 104 (total value: US\$238 154 846), compared with a total of just 20 projects (total value: US\$39 039 500) registered in the sector between 1992 and 1999 (Figure 2). Based on the comparison between total FDI and the value of total planned foreign investments discussed in section I.2.1, we estimate the total value of foreign-owned investments in agriculture from

FIGURE 2
Number of planned foreign investments in
agriculture in Uganda, 1992–2008



Source: Uganda Investment Authority, 2009

2000 to 2008 to be between US\$77.3 million and US\$100 million³. In the period 1991 to 2008, the value of planned investments in agriculture ranged from US\$0.8 million to US\$55 million, and was less than 20 percent of the value of all projects (Figure 3).

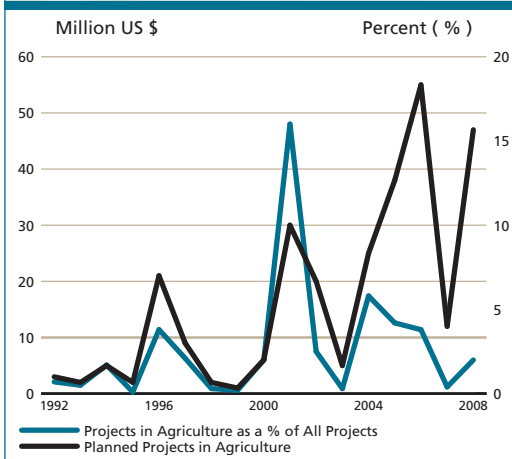
Over the period 1992 to 2008, the number of projects in the agriculture have accounted for less than 10 percent of all planned foreign-owned projects. Since its establishment in 1991, the Authority has registered a total of only 124 planned, foreign-owned projects in commercial agriculture, which had a total value of US\$277 million.

About half of the registered projects were in four subsectors: fish (22 percent); general farming (14 percent); flowers (7.8 percent) and forestry (7.8 percent), (Figure 4). The majority

³ The value of 32.4 percent (which is the median of value FDI as a percentage of value of planned investments for a given year between 2000 and 2008) was multiplied by the total value of planned investments from 2000 to 2008 to obtain the value of US\$77.3 million. In order to obtain the value of US\$100 million we used the average of value of FDI as a percentage of the value of planned investments for a given year between 2000 and 2008 of 42.1 percent.

FIGURE 3

Value of planned foreign investments in agriculture in Uganda, 1992–2008



Source: Uganda Investment Authority, 2009

of the planned foreign projects were from three countries: India (21 percent), United Kingdom (16 percent) and Kenya (10 percent) as shown in Figure 5.

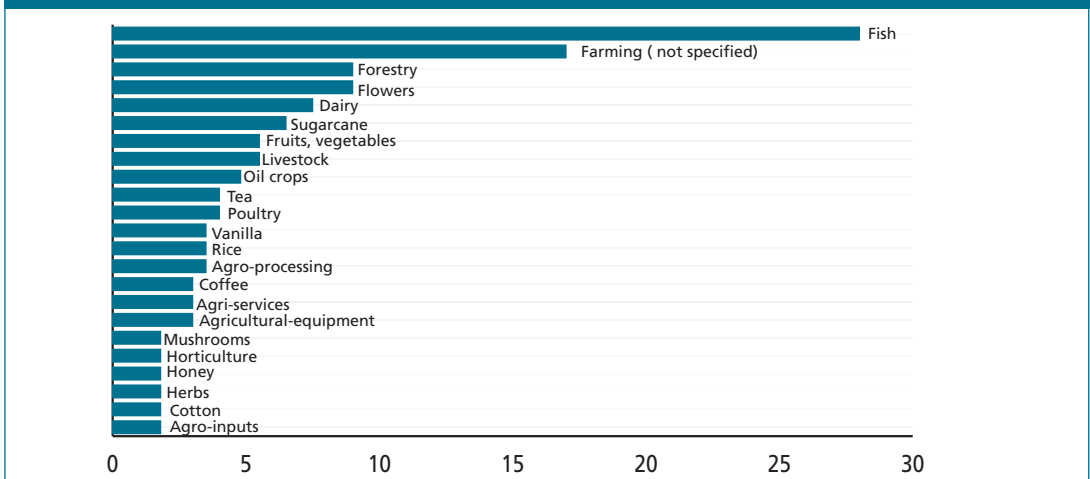
3. Policies to encourage private investment in the agricultural sector

Uganda's agricultural sector has undergone major policy reforms over the past two decades. The reforms centred on economic liberalization and privatization of public enterprises with the aim of promoting private sector participation in the development process. Previously, the government controlled the agricultural sector by setting prices and establishing marketing boards that were engaged in buying commodities from smallholder farmers, and selling them abroad. However, this system proved ineffective in running the agricultural sector, prompting the government to implement structural changes.

Currently, Uganda's overall development policy framework is the Poverty Eradication Action Plan (PEAP) that was introduced in 1997 and revised in 1999 and 2004, respectively. The PEAP has five pillars that were identified as the key areas to steer Uganda's development agenda. These are: 1) Economic management; 2) Enhancing production, competitiveness and incomes; 3) Security, conflict resolution and

FIGURE 4

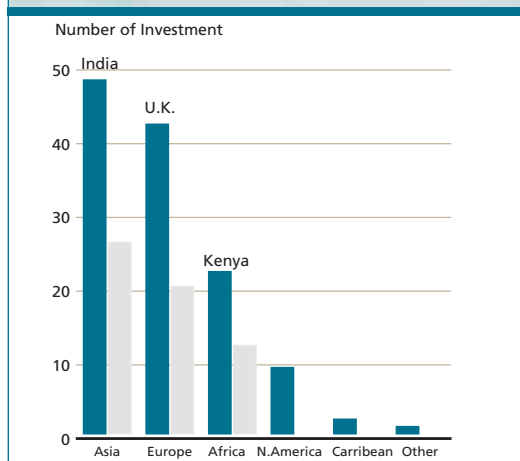
Agricultural sectors of planned FDI in Uganda, 1992–2008



Source: Uganda Investment Authority, 2009

FIGURE 5

**Source of agriculture FDI in Uganda,
1992–2008**



Source: 2008 Statistical Abstract; UIA Database.

disaster management; 4) Good governance; and 5) Human development. The agricultural sector falls under pillar two, which focuses on improving the livelihood of farmers by supporting them, and increasing their incomes through agriculture.

In 2000, the Government of Uganda introduced the Plan for the Modernization of Agriculture (PMA) – a strategic policy seeking to transform the lives of poor farmers through introducing modern agricultural practices. The PMA is part of the government's broader strategy of eradicating poverty as outlined in the PEAP and its overall objective is to increase incomes, improve household food security, provide gainful employment and promote the sustainable use and management of natural resources (Uganda, MAAIF, 2006).

The government policy on agriculture is aimed at increasing household incomes to at least US\$ 20 million per annum in the short and medium term (Uganda, MFPED, (2008). However, government expenditure on the agriculture sector is small, relative to expenditure on other sectors⁴.

⁴ The Government of Uganda allocated 3.2 percent of its total expenditure in the 2006/07 financial year to agriculture, compared to 13.4 percent and 10.7 percent to Security and Public Administration respectively. (Uganda, MFPED, 2007: 23)

Institutional and regulatory framework

Uganda's law governing investments is known as The Investment Code (2000)¹, and the body responsible for promoting and facilitating investment in the country is the Uganda Investment Authority (UIA). The Investment Code does not have provisions for TNC participation in Uganda but instead provides a broad regulatory framework for both local and foreign investors.

Foreign investors are required to have a minimum of US\$500 000 in planned investments in order to secure an investment license from UIA, while local investors require US\$50 000 (Uganda, UIA 2000). The TNCs operating in Uganda are regulated by the Companies Act (Cap 85).

The land tenure situation

The land tenure system in Uganda includes a mix of traditional practice, colonial regulations and post-colonial legislation. There are four main forms of land tenure systems in Uganda namely: customary, mailo, freehold and leasehold tenure (World Bank, 1993).

The Investment Code discourages foreign investors from owning land in Uganda. Part II, Section 10(2) of the Investment Code Act (2000) bars any foreign investor from engaging in crop or animal production, or to be granted lease land for the purpose of agricultural production. However, the code permits the investor to provide assistance to Ugandan farmers. Section 10(4) however stipulates that this restriction may be overlooked by the relevant Minister, on the advice of the Authority and approval of Cabinet.

The Investment Code and the Land Act (1998) state that foreign investors can only hold leasehold land titles; leases can be for up to 99 years (Uganda, UIA, 2001). According to section 42 of the Land Act, the government may acquire land from citizens in the interest of defence, public safety or public use. However, this compulsory acquisition of land is subject to the prompt payment and fair compensation of the affected people by the government.

3.1 Policies to enhance domestic capabilities and safeguards

Uganda does not have a specific policy targeting the participation of TNCs in agriculture but instead

TABLE 1
Investment incentives, Uganda

Incentive	Description
Investment Capital Allowance	Initial allowance on plant and machinery (50-75 percent) Start-up cost spread over 4 years (25 percent p.a.) Scientific research expenditure (100 percent) Training expenditure (100 percent) Mineral exploration expenditure (100 percent) Initial allowance on hotels, hospitals and industrial buildings Deductible annual allowances (depreciable assets) Depreciation rates of assets range (20-40 percent) Depreciation rates for hotels, industrial buildings and hospitals (5 percent)
VAT Refunds	Investors who register as investment traders are entitled to VAT refund on building materials for industrial/commercial buildings
Duty and tax free import of plant and machinery	
First Arrival Privileges (FAPs)	FAPs in the form of duty exemptions for personal effects and motor vehicles (previously owned for at least 12 months) to all investors and expatriates coming to Uganda
Export Promotion Incentives and facilities	Manufacturing under bond Duty exemption on plant and machinery and other inputs Stamp duty exemption Duty drawback – a refund of all or part of any duty paid on materials, inputs imported to produce for export Withholding tax exemption on plant and machinery, scholastic materials, human and animal drugs and raw materials Ten year tax holiday – duty remission scheme for exporters involved in value addition

Source: Uganda Investment Authority (UIA)

focuses on creating an enabling environment for all private sector players to engage in agricultural production. In view of this, the government set up measures to control the quality of agricultural products and the enforcement of quality standards, in order to ensure food safety and compliance with international standards.

Under the PMA Policy, the government identified seven priority areas that would create domestic capabilities and maximize benefits from the participation of TNCs. The areas include: agricultural research and technology development; agricultural advisory services; rural financial services; agricultural education; agricultural marketing and agroprocessing; sustainable natural resources management; and supportive physical infrastructure. These key areas

are to be implemented through the coordination of the various relevant ministries.

Incentives offered to encourage private investment in agricultural sectors

Uganda has an open investment climate with regard to foreign investment. The Ugandan Government has in place a number of specific incentives for investors (both foreign and Ugandan). The main criterion for investors to benefit from these incentives is a minimum initial capital investment of US\$500 000 for foreign investors and US\$50 000 for Ugandan investors. The investment incentives that apply to all investment are provided in Table 1.

Uganda has a number of obligations under international law that are relevant to the fisheries

TABLE 2
Summary of Uganda's international obligations for the fishing sector

Name of obligation	Details/objectives
The Convention on Biological Diversity	Objective is to develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity.
The Treaty for the Establishment of the East African Community	Objectives: <ul style="list-style-type: none">• To jointly and efficiently manage the natural resources within the community• To adopt common regulations for the protection of shared aquatic and terrestrial resources.
The Ramsar Convention	<ul style="list-style-type: none">• Signed in Ramsar, Iran in 1971.• The main objective is to provide the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources.
The Convention on International Trade in Endangered Species	<ul style="list-style-type: none">• Regulates the international wildlife trade worth billions of dollars annually.• The signatory countries act by banning commercial international trade in an agreed list of endangered species and by regulating and monitoring trade in others that might become endangered.
Technical Corporation for the Promotion of the Development and Environmental Protection of the Nile Basin (Tecconile) 1992	<ul style="list-style-type: none">• Established by the Ministers of Water Affairs in the Nile Basin. There are ten signatory countries: Burundi, Democratic Republic of the Congo, Egypt, Ethiopia, Eritrea, Kenya, Rwanda, Sudan, United Republic of Tanzania and Uganda• Main objective is to provide for cooperation in the sustainable development, conservation and joint use of the River Nile's waters.
Convention for the Establishment of the Lake Victoria Fisheries Organization 1994	<ul style="list-style-type: none">• Adopted by Kenya, Uganda and United Republic of Tanzania.• Objectives of the convention are to foster cooperation among the parties; harmonize national measures for the sustainable utilization of the living resources of Lake Victoria; and to develop and adopt conservation and management measures.
The FAO Code of Conduct for Responsible Fisheries 1995	<ul style="list-style-type: none">• Adopted at the 28th Session of the FAO Conference in October 1995.• Provides principles and standards applicable to the conservation, management and development of fisheries.• Covers the capture, processing and trade in fish and fish products, fishing operations, aquaculture and fisheries research.

Source: Uganda Investment Authority (UIA)

sector and the National Fisheries Policy, which have been summarized in Table 2.

Uganda is a signatory to the International Treaty on Plant Genetic Resources for Food and Agriculture, commonly known as the International Seed Treaty. This treaty aims at guaranteeing food security through the conservation, exchange and sustainable use of the world's plant genetic resources for food and agriculture. Some of the issues that have made member countries raise concerns about the treaty include: 1) the extent to which farmers and communities will be allowed to freely use, exchange, sell and breed the seeds; and 2) what enforcement procedures will be used by national governments to ensure that principles of farmers' rights are respected. Some critics of the treaty state that its provisions are either still unresolved, or even open to interpretation.

4. Investments by transnational corporations in the agricultural sector

According to UNCTAD, a transnational corporation (TNC) is generally regarded as an enterprise comprising entities in more than one country, which operate under a system of decision-making that permits coherent policies and a common strategy. The entities are so linked, by ownership or otherwise, that one or more of them may be able to exercise a significant influence over the others and, in particular, to share knowledge, resources and responsibilities with the others.⁵ According to data from the Uganda Bureau of Statistics, 168 enterprises

⁵ <http://www.unctad.org>

TABLE 3
Summary of enterprises in commercial agriculture and related services, 2008

No.	Sub-sector	Foreign-owned/TNCs	Domestic	Total
A	Agricultural Chemicals, Fertilizers and Irrigation	3	7	10
B	Agricultural Engineering, Equipment and Services	19	29	48
C.	Agricultural Seeds	3	5	8
D.	Beekeeping, Equipment Manufacturing and Trainers	0	5	5
E.	Coffee Processing and Export	6	26	32
F.	Cotton Exporters	3	1	4
G.	Cotton Ginning Machinery	2	0	2
H.	Cotton Lint	1	10	9
I.	Fish Farms	0	1	1
J.	Fish Processors and Exporters	3	19	22
K.	Fishing Equipment and Supplies	0	2	2
L.	Floriculture and Flower Exporters	11	10	21
M.	Grain Millers	2	6	8
N.	Hides and Skins	0	2	2
O.	Milk and Dairy Products	2	4	6
P.	Poultry Hatcheries and Poultry Feeds	0	3	3
Q.	Rice Growers, Dealers and Exporters	1	1	2
R.	Sugar Manufacturers	1	3	4
S.	Tobacco Processing and Export	1	1	2
T.	Tea Processing	1	2	3
U.	Edible Oil Processing	1	2	3
	Total	60	139	199
	Percentage	30	70	100

Sources: company websites, Uganda Flower Exporters Association (UFEA); Uganda Fish Processors Association (UFPA); and Uganda Coffee Development Authority (UCDA), The *Monitor* Directory 2008.

employing 5 or more persons were engaged in commercial agriculture (excluding livestock agriculture) and fishing during 2006/7⁶.

A review of the listing of the firms engaged in agriculture or related activities, summarized in Table 3, shows that three out of every ten companies are foreign-owned, including TNCs.

⁶ Uganda: Uganda Bureau of Statistics (2007): Report on the Uganda Business Register 2006/7 :16, 19. The number of enterprises engaged in commercial agriculture (excluding livestock agriculture) has been calculated as 0.44*382 (total number of enterprises in commercial agriculture including livestock rearing). The number of enterprises engaged in fish processing and export has been calculated to including all private limited liability companies (3 percent of all companies); all partnerships (3 percent); and other companies (2 percent). The total number of enterprises engaged in fishing and related services was 124 during 2006/7.

Given the limited availability of data on asset holdings of companies engaged in agricultural production, there is a tendency to assume that most of the commercial agricultural enterprises are foreign-owned. However, some are owned by Ugandans of Asian ethnicity⁷. Information on the ownership of the enterprises engaged in agricultural production was collected from company websites and interviews with the respective associations: the Uganda Flower Exporters Association (UFEA); the Uganda Fish Processors Association (UFPA); and the Uganda Coffee Development Authority (UCDA). Enterprises whose existence or ownership could not be confirmed have been excluded. The listing estimates about 200 enterprises including

⁷ Uganda Investment Climate Report 2004.

66 enterprises providing agro-inputs (seeds, fertilizers, machinery) .

Most foreign-owned enterprises, including TNCs, have invested in agricultural engineering, equipment and services; floriculture and flower exports; and coffee processing and export. Investment by foreign-owned enterprises, including TNCs as a percentage of total investment, is concentrated in the following areas: cotton ginning and export (75 percent of enterprises); floriculture (52 percent); rice growing and export; and tobacco processing and export (1 of 2 enterprises in each subsector); agricultural seeds (38 percent); supply of agricultural chemicals and fertilizers (33 percent); and milk and dairy products (33 percent of enterprises). Information on the actual contribution of the TNCs in terms of percentage of total contribution in each subsector is not available for most sectors. We can therefore make a reasonable assumption from the information presented in Table 3, that ownership of enterprises in agriculture is predominantly in the hands of Ugandans.

5. Value chain of selected commodities: Coffee, flowers and fish

A value chain is a supply chain consisting of the input suppliers, producers, processors and buyers that bring a product from its conception to its end use.⁸ The value chains of the three selected commodities are outlined in the following sections:

• Coffee subsector

In Uganda, coffee is a smallholder crop cultivated on small farms with an average size of 0.2 hectares. Two varieties of coffee are cultivated: Robusta accounts for about 85 percent of coffee

cultivated and Arabica accounts for 15 percent. It is the main source of income for about 500 000 rural households (Sayer, 2002). Uganda's Robusta coffee is considered one of the best varieties in the world (Uganda, National Exports Strategy 2007). Arabica coffee is also an important variety, with good harvests in the Mt. Elgon area and fetching relatively high farmgate prices (DANIDA, Agriculture Sector Programme Support (ASPS II) Annual Progress Report 2005/2006).

Since the early 1990s, the coffee sector's main challenge has been the coffee wilt disease. This disease is estimated to have affected about 55 percent of the total area planted with Robusta coffee trees (Uganda, UCDA, 2005). A replanting programme, which is replacing affected coffee trees with wilt-resistant varieties, and ageing trees, has gradually reversed years of declining production. For example, between October 2007 and September 2008, 3.2 million bags of coffee worth US\$362 million were produced compared to 2.5 million bags worth US\$238 million in October 2006 – September 2007 (Uganda, UCDA 2009).

Coffee processing and export Uganda⁹

The ripe coffee fruits (cherries) go through a number of operations aimed at extracting the beans from their covering of pulp, mucilage, parchment and film, to improve their appearance. The resulting clean coffee bean of fairly average quality (FAQ) can then be roasted and ground to obtain the coffee powder fit for human consumption. Two main techniques are employed in Uganda to obtain clean coffee beans. Wet processing is applied to the choice Arabica coffees produced at high altitudes in the Mount Elgon areas in the East, the Highland areas of Nebbi in the North and the mountainous areas of Kisoro and Rukungiri in the Southwest. The coffees so produced are generally described as 'mild'. Dry processing produces coffees that are described as 'hard'. These are mainly the Robustas grown around the Lake Victoria basin. The wet processed (washed) coffees are generally superior to the dry processed in terms of physical appearance and cup taste.

⁸ Dempsey Jim, Campbell Ruth. A Value Chain Approach to Coffee Production; Linking Ethiopian Coffee Producers to International Markets: [http://www.acdivoca.org/852571DC00681414/Lookup/WRSpring06-Page5-7-ValueChainCoffee/\\$file/WRSpring06-Page5-7-ValueChainCoffee.pdf](http://www.acdivoca.org/852571DC00681414/Lookup/WRSpring06-Page5-7-ValueChainCoffee/$file/WRSpring06-Page5-7-ValueChainCoffee.pdf)

⁹ <http://ugandacoffee.org>: Primary and Secondary Processing.

Over 95 percent of the total annual coffee production is exported as green beans; just 5 percent of the coffee is processed locally. Secondary processing – also known as export grading – transforms the clean coffee (FAQ) into the various coffee grades that meet international standards. According to the UCDA, there are about 28 coffee exporting companies, 19 export grading factories, 251 primary processing mills and 9 roasters (Uganda: UCDA Annual Report, 2006/07: 7). Uganda has one only one coffee processing company.

During the 2006/2007 coffee season, the average farmgate price for dried Robusta coffee cherries was about US\$0.59 per kilo, while the price of clean coffee (FAQ) was double, at about US\$1.18 per kilo. The export price for Robusta coffee rose from an average of US\$1.7 per kilo in October 2006 to US\$2.0 per kilo in September 2007, and more than 50 percent of the price of FAQ.¹⁰ On a price basis alone, locally, the greatest value is added during the processing of FAQ.

Uganda has a total seven foreign-owned enterprises and eighteen locally owned enterprises engaged in coffee buying, processing and export. Six TNCs are among the largest coffee processors and exporters, including: ED&F Man Holdings Limited, United Kingdom; Olam International Limited, Singapore; Ecom Agroindustrial Corporation Limited, Switzerland; Sucafina S.A., Switzerland; Neumann Gruppe GmbH, Germany; and Great Lakes Coffee Company Uganda Limited owned by two Greek nationals. These TNCs accounted for about 59 percent of coffee exports in the 2008/9 season.

Eleven of the 16 major coffee processing and export companies, including all the TNCs, started exporting in the 1990s, following the liberalization of the coffee sector in 1991. Four of the five companies that started exporting after 2000 were domestic-owned companies. In part, this suggests that there are no ‘crowding out’ effects by TNCs in the sector. Indeed, domestic companies that started exporting after 2000 were

able to take a sizeable share of the market, and accounted for 25 percent of coffee exports in 2008/9.

Whereas TNCs that entered the coffee business early (following liberalization) had first-mover advantages with respect to market shares, in that they commanded a larger share of the total market for coffee than the later entrants, the domestic-owned companies that entered the coffee business more recently – after 2000 – had a larger market share than similar companies that started exporting in the 1990s. This could be attributable to the recent entrants having more resources and also having benefited from studying the operating practices of the TNCs and their domestic-owned counterparts who entered the market before them.

There is also evidence that TNCs are becoming more involved in the lower end of the value chain by establishing demonstration farms and providing training support to subsistence farmers, in order to have more reliable supply of coffee and to manage product quality. Examples of demonstration farms include Project Nakanyonyi by Kyagalanyi Coffee Ltd (established in 2007), Kaweri Coffee Plantation Ltd (established by Ibero (U) Ltd in 2001) and demonstration farms started by Ugacof Ltd.

• Flowers and cuttings subsector

Uganda’s floriculture sector was established in 1992. At the time, the main commodity produced was rose flowers. By 1998, there were 18 companies engaged in production and export of roses; ten of these companies have since closed.¹¹

¹⁰ Uganda: UCDA Annual Report: 2006/07: 7, 11); The exchange rate applied was US\$1: UGX 1 721, which was the bureau weighted average selling rate in 2007 (Uganda: 2008 Statistical Abstract: 223).

¹¹ In 1998, the following companies were producing roses: Equatorial Flowers, Harvest International, Horizon Roses, Jambo Roses, Kajjansi Roses, Mairye Estates, Melissa Flowers, MK Flora, NBA Roses, Nile Roses, Nsimbe Estates, Pearl Flowers, Royal Flowers, Scoul Roses, Tropical Flowers, UgaRose, Van Zanten (U), Victoria Flowers, and Zziwa Horticultural Exporters (Dijkstra T, 2001). In 2008, the following companies had closed: Equatorial Flowers, Harvest International, Horizon Roses, MK Flora, NBA Roses, Nile Roses, Nsimbe Estates, Royal Flowers, Scoul Roses, Tropical Flowers, UgaRose, and Zziwa Horticultural Exporters.

BOX 1

TNCs in the coffee processing and export sector in Uganda, 2009 *

Kyagalanyi Coffee Ltd (www.volcafe.com), is a subsidiary of ED & F Man Holdings Limited, United Kingdom, which bought VOLCAFE in 2004. Kyagalanyi was the first coffee exporter to be certified under the ISO:9001:2000. The enterprise is also certified and verified under the OQS, a member of the Australian member of the International Certification Network - IQNET. In 2007, Kyagalanyi started Project Nakanyonyi to train farmers on improved farming practices in order for them to receive better prices for their produce.

ED & F Man is the market leader in procurement and preparation of green coffee. The company has operations in 21 countries worldwide.

Olam (U) Ltd (www.olamonline.com), a subsidiary of Olam International Ltd in Singapore. Olam International specializes in 17 agricultural products. The enterprise's strategy is to manage each activity in the supply chain, from origination to processing, logistics, marketing and distribution. This has allowed for operational efficiencies, and value addition. Olam Uganda has its head office in Kampala and its procurement/distribution units are spread over the entire country. The first product on Olam Uganda's portfolio was Robusta coffee. Subsequently Arabica coffee, cotton, sesame, rice and sugar were added on to its products. Olam has invested in a state-of-the-art coffee processing facility in Kampala.

Kawacom (U) Ltd (www.kawacom.com), a subsidiary of Swiss based ECOM Agroindustrial Corp. Ltd Kawacom was established in 1996. The enterprise spearheaded the development of the first organic coffee farm in the country, and was the first exporter of organic coffee. Four buying centres. Kawacom currently operates processing mills and one central processing mill for the preparation of export coffee. By procuring the coffee directly from the source, Kawacom can offer guaranteed quality and timely delivery to its buyers. Since 1998, Kawacom has expanded its trading business from the better known Ugandan Robusta into washed Arabicas.

At the time of writing, the company is developing three organic coffee projects in partnership with small farmers. Two of these projects focus on washed Arabicas, and the third on Robusta – the first organic Robusta from Africa.

ECOM is among the leading supply chain managers in the world and an integrated supplier of both raw and semi-processed agricultural commodities

UGACOF Ltd (www.ugacof.com) is a subsidiary of Sucafina, a Swiss based enterprise. UGACOF has been in the coffee business since 1994, exporting both coffee and cocoa. The enterprise is also engaged in transport and shipping services through its sister company UGATRANS. To improve on the quality and yield of the coffee, UGACOF installed demonstration plots and developed training sessions for farmers.

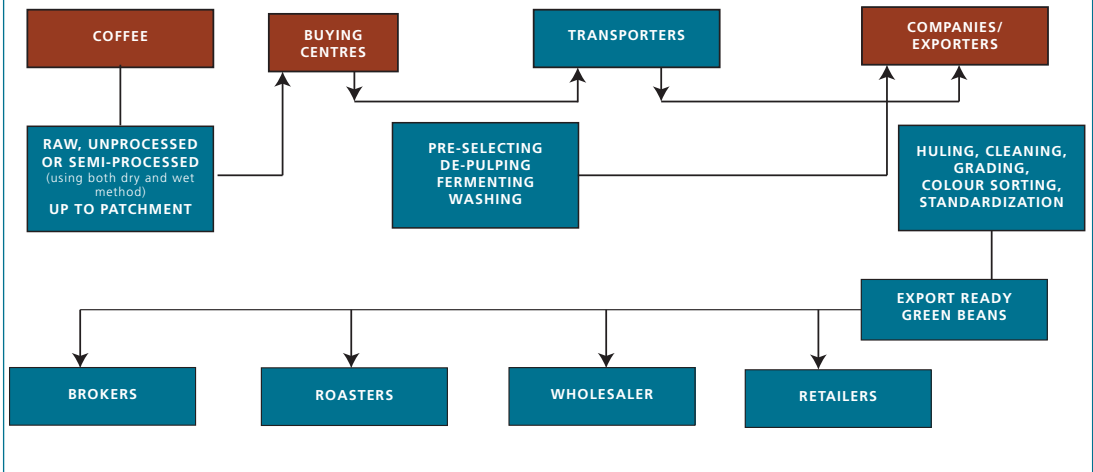
Ibero (U) Ltd (www.nkg.net) is a subsidiary of Neumann Kaffee Group. In addition to Ibero (U), Neumann Kaffee Group (NKG) operates Kaweri Coffee Plantation Limited in the Mubende district. This is a large-scale Robusta coffee farm, established in 2001 as part of the NKG farming strategy.

NKG operates an arm's length relationship with its 40 subsidiaries. Each subsidiary is run as its own profit centre within the Neumann Gruppe GmbH, the holding company of Neumann Kaffee Gruppe. Neumann Gruppe GmbH is located in Hamburg, and directs and coordinates all activities of the group.

Great Lakes Coffee Company Ltd was established in 1999 by two Greek nationals with a 50:50 shareholding. The company is engaged in coffee buying, processing and export. Great Lakes sells about half of its total production (57 percent in 2008) on the domestic market to Kawacom, Olam and Kyagalanyi Coffee Ltd and exports the rest, mostly to customers in Italy, the United Kingdom, Germany and Switzerland.

* This information was primarily obtained from the companies' websites

CHART 1
Uganda coffee value chain



Source: Uganda National Export Strategy 2007.

Cultivation of rose flowers in Uganda is predominantly undertaken by majority Ugandan-owned companies. In all, 14 out of 20 companies (or 70 percent of the total companies) produce roses. These companies comprise Ugandan-owned and foreign-owned companies but do not include companies owned by Dutch investors. The three largest exporters of roses: Rosebud Limited, UgaRose Limited and Jambo Roses Limited, are Ugandan-owned companies.

All the five companies established by investors from Holland, which boasts expertise in flower production, produce plant varieties other than roses (mostly chrysanthemum cuttings). One Ugandan-owned company (Chrysanthemum Cuttings Ltd), which was established in 2007, has ventured into the production of chrysanthemum cuttings. This company has the same ownership as Kajjansi Roses Ltd, which was established earlier and cultivates roses.

Flowers and cuttings have emerged as major, non-traditional export commodities for Uganda, with an estimated value of US\$22.8 million in 2007, making these products the fourth largest non-traditional export commodities after fish, gold and maize (Uganda: Statistical Abstract 2008). Floriculture exports are dominated

by cut flowers (virtually all cut roses), and chrysanthemum cuttings (Uganda, UFEA 2007).

There are three types of roses currently grown in Uganda: T-hybrids (long stem, big flower heads), sweethearts (short stem, small flower heads) and floribundas (intermediate). The sweetheart rose variety is most suitable for Uganda's warm, humid climate. Trials with chrysanthemum cuttings started in 1995, through joint ventures with Dutch companies, and very high yields of cuttings under Ugandan conditions were indicated. Indeed chrysanthemums grow very well in Uganda's climatic conditions (Uganda, UFEA 2007).

Currently, the flower and cuttings sector comprises 20 enterprises covering more than 200 hectares of land and producing over 40 varieties of flowers (Uganda, UFEA 2008). The sector has grown considerably over the last eight years, at an average annual rate of 20 percent (Uganda, UEPB 2007). In 2007, total investment in the sector, both local and foreign, was estimated at over US\$60 million (Uganda, UIA 2007). The flower sector has also emerged as an important non-traditional export earner and a major employer. About 6 500 persons (mostly women) are employed in the flower industry or 325

BOX 2

TNCs engaged in production of flowers and cuttings in Uganda, 2009

Fiduga (Uganda) Ltd (www.fides.nl) is a subsidiary of FIDES BV Group, Holland. It started as a trial farm on 2,500 m² in 1996. Currently the farm stands on 20 hectares. Fiduga's production of chrysanthemum cuttings is directly exported to the parent company for growing, distribution and sale. The parent company has been in the floriculture business for 40 years, and has five subsidiaries around the world. Each year FIDES BV Group introduces new varieties of chrysanthemums, which after considerable testing, are introduced into subsidiary countries for propagating and production of cuttings. Fiduga is currently Uganda's largest exporter of chrysanthemum cuttings.

Wagagai Ltd (www.wac-international.com) is a Ugandan-based enterprise, and Dutch owned. It has been in the floriculture business since 2001. In the last five years, the enterprise diversified into the cuttings business. The farm is on 22 hectares and supplies chrysanthemum cuttings to Deliflor in the Netherlands and pot plant cuttings to Selecta Klemm in Germany. In 2002, Wagagai Ltd partnered with Agricom, a breeding company based in Holland, to allow for easy production and breeding. This partnership is called WAC International, which stands for "Wagagai Agricom Combination". WAC international is also an agent of Delforge in East Africa and Kenya. WAC's strategy is to introduce varieties of chrysanthemums slowly and on a small scale into the market. Wagagai Ltd is currently the second largest exporter of chrysanthemums from Uganda.

Royal Van Zanten Uganda (www.royalvanzanten.com) is a subsidiary of Royal Van Zanten, Holland. The enterprise has been operating in Uganda for the last 12 years, and is the third largest exporter of chrysanthemums. Royal Van Zanten, Holland operates nine subsidiaries worldwide, and has been in the floriculture business for the last 160 years. It has a modern and advanced department where the latest techniques are used to research and develop improvements to current plant types and varieties. Royal Van Zanten Uganda exports its production directly to the parent company for growing, distribution and sale. The enterprise's current arrangement with the parent company is that key decisions are made at the local level

employees per company, on average. Eighty-five percent of Uganda's companies have less than 50 employees (Uganda: Uganda Business Register 2006/07:88)

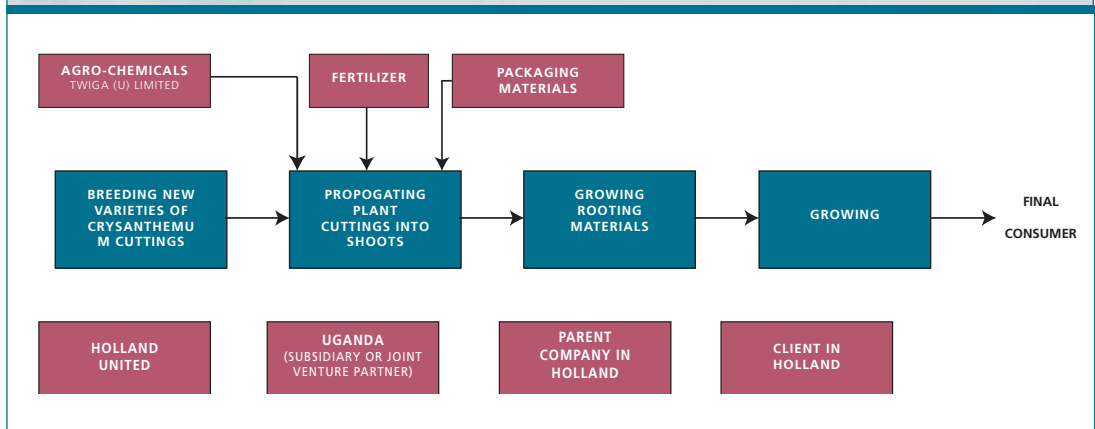
The value chain shows that the subsidiary (or partner) in Uganda principally propagates the chrysanthemum cuttings and exports the shoots or cuttings back to the parent company or partner for growing rooting material (or flowers). The processes of plant breeding and flower growing (from shoots) are performed outside Uganda.

Within the flower and cuttings sector there is evidence of a shift – driven by the TNCs – to cultivating flower varieties other than roses. Most of the flower companies established between

1994 and 1999 concentrate on rose production (9 out of 11 companies, or 81 percent of total companies established). Just two companies established within the period, both Dutch-owned, are engaged in the production of other flower varieties, specifically chrysanthemum cuttings. This trend, however, changed after 2000. Nine flower companies were established between 2000 and 2008. Four of these companies (or 44 percent of total companies established during the period), are producing chrysanthemums and other plant varieties, e.g. kalanchoe cuttings, bedding plants, pot plant cuttings and vegetables, among others. The proportion of the companies producing roses reduced to 56 percent of total companies established.

CHART 2

Value chain of chrysanthemum flowers from Uganda



Source: Royal Van Zanten Uganda Limited.

The shift suggests that the failure of many rose growing companies during the 1990s provided an important lesson for later investors, who are now concentrating on producing plant varieties that are better suited to Uganda's climate. Uganda's warm, humid climate¹² is very favourable to the cultivation of chrysanthemum cuttings and other plant varieties. Most rose varieties, however, thrive better in cooler climates, e.g. in the highlands of Kenya and Ethiopia. There is no evidence of crowding effects in the flowers and cuttings sector.

• Fish subsector

The fish value chain consists of five players: the primary producers (the fishermen), the fish collection boats (wooden and motorized), the fish transporters (traders and factory agents), the local traders and processors, and the regional and international exporters (Diagram 3). Fish processors do not operate fishing boats but can purchase fish from fishermen or middle men.

The fishermen, who were estimated at about 136 000 in 1997 (National Fisheries Policy for Uganda, May 2004) – land their catch on

various landing sites on three major lakes: Lake Victoria, Lake Kyoga and Lake Albert. Lake Victoria is estimated to have about 600 landing sites (Uganda, Fisheries Resources Research Institute, 2003). At this stage, the processors provide ice (from their own icemaking plants) to fish collection boats to preserve the fish until it reaches the landing sites. The number of fish collection boats was estimated at 960 in 2003 (National Fisheries Policy for Uganda, May 2004). At the landing sites, fish is sold to traders and suppliers, who in turn supply the fish processors or domestic traders. The number of fish traders was estimated at about 20 000 in 2003 (Uganda, Fisheries Resources Research Institute).

At the processing plants, frozen fish products for export are packed in corrugated carton boxes, which are sourced locally, while chilled fish products for export are packed in styrofoam boxes, which are also sourced locally. By-products are also processed and exported; they include the swim bladders, visceral fat and skins. It is expected that most of the value is created during fish processing.

Along the value chain, fish factories are involved in the provision of inputs (packaging materials), technical support and quality control (implementing the EU and USA Hazard Analysis Critical Control Point System), processing and

¹² Temperatures range from a maximum of 28 °C during daytime, down to around 18 °C at night (UFEA, 2007).

exporting of fish, marketing and training of fishermen. They also provide ice to contracted fishermen and boat traders who supply them with export-quality fish.

Fish processing and export

The fish processing and export sector comprises 17 factories and employs over 800 000 Ugandans, directly and indirectly (Uganda, UFPEA, 2008). Between 2001 and 2005, the sector registered its highest growth, with export earnings increasing from US\$87 million to US\$143.4 million. During this period, the number of fish factories also increased from 11 to 17. In 2007, however, the number of operational

factories scaled back to eleven, and export revenues declined. Indeed, the fish sector has been negatively impacted by dwindling stocks of Nile perch in Lake Victoria.¹³ According to the Uganda Export Promotion Board (UEPB), Uganda's formal fish exports fell in 2005, from US\$143.6 million in 2005 to US\$112.2 million in 2008, despite a relatively stable demand in the export markets in the European Union. This was attributed largely to a decline in stocks of Nile perch as a result of overfishing by the fishing industry. The current number of fish processing and export companies is 22 (Table 3).

¹³ Interview with Greenfields (U) Ltd.

BOX 3

Major fish processing and export companies in Uganda, 2009

Marine & Agro Export Processing Ltd (www.marineandagro.com) is the leading fish processing and exporting company in Uganda. The enterprise is affiliated with Kendag Ltd, in Nairobi, Kenya, which operates six processing plants. Marine & Agro Export Processing Ltd has been in fish processing and exporting business for more than 20 years. Presently, the enterprise operates 5 processing plants in Uganda and exports to more than 20 countries worldwide.

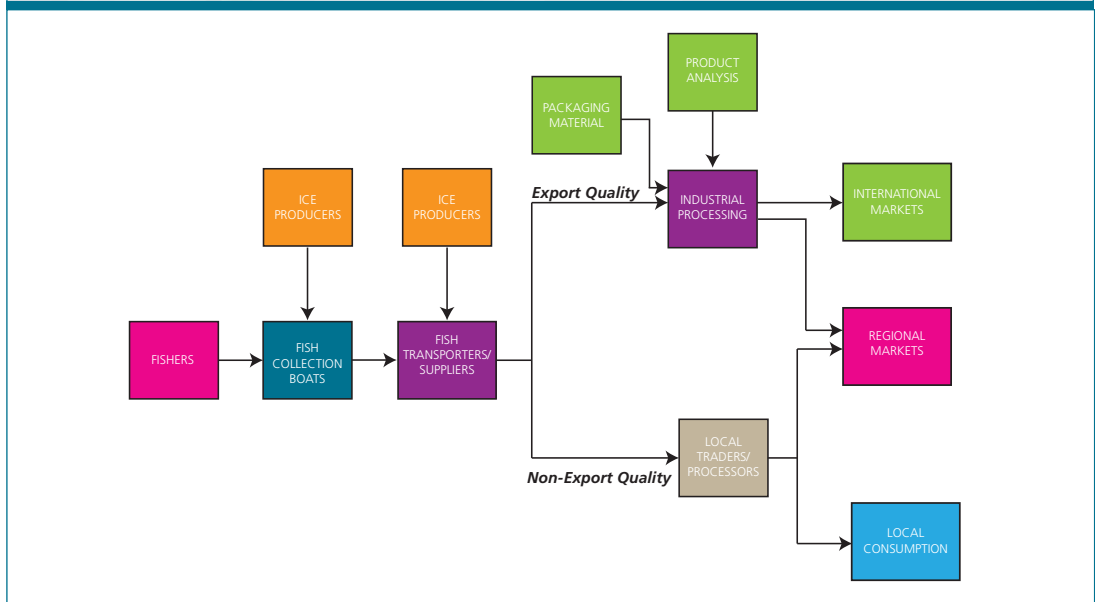
Uganda Fish Packers (www.alphauganda.com) is a subsidiary of Alpha Group, a multinational company, which has been operating in sub-Saharan Africa and the Gulf countries for the last 50 years. The enterprise is the second largest fish processing and exporting company in Uganda, with an installed capacity of 6 000 metric tonnes of fish fillet. Uganda Fish Packers owns nine processing plants in Uganda, United Republic of Tanzania and Kenya.

Hwan Sung (U) Ltd (www.hwangsungbiz.com) is owned by Korean nationals and the third largest fish processing and exporting company in the country. The enterprise has been in the fish processing and exporting business for close to 20 years. It has invested heavily in technology, with a capacity to store up to 390 tonnes of frozen fillets. Hwan Sung is also the leading supplier of various sizes of Styrofoam boxes that are used for packing fish, fruits, vegetables and flowers.

Greenfields (U) Ltd was established in 1989 and is owned by two Belgian nationals (95 percent shareholding and one Ugandan (5 percent shareholding). The enterprise is strategically located in Entebbe, along the shores of Lake Victoria, which allows for easy access to fish from landing sites and water. Greenfields processes Nile perch and Tilapia and exports over 4 000 tonnes of fish annually. More recently, the company in partnership with the Lake Harvest Group, Luxembourg established the Source of the Nile Fish Farm Ltd (SON). The enterprise is pilot testing a commercial fish farm to meet the increasing demand for fish.

Source: company websites and field interviews

CHART 3
Value chain for fish processing in Uganda



Sources: Nyombi K, Bolwig S (2003); Uganda: Uganda National Exports Strategy, 2007.

Of the three fish factories that started operating in the 1980s, the two domestic-owned factories (Gomba Fish Industries Ltd and Ngege Ltd) have recently closed due to poor financial management (Ngege Ltd) and the depleting fish stocks (Gomba Fish Industries Ltd).

Eleven of the operational fish factories were established after 2000. The new companies in the sector are established to maximize the fish catch. For example, seven fish processing factories were established in 2005, a year before the quantity of fish exported started declining. Five of these companies have one owner, who established each company on a different landing site to maximize the raw material catch.

Surprisingly, however, even with the dwindling fish stocks, the sector is attracting new investment: three new companies were established between 2007 and 2009. These companies are Wildcatch Fisheries Ltd, established in 2007 and fishing from Lake Albert; Lake Bounty Ltd, established in 2008 and using premises rented from Ngege Ltd and IFTRA (U)

Ltd, established in 2009 and using premises rented from Gomba Fisheries Ltd. Furthermore, it is notable that some foreign companies in this sector have diversified into other sectors that are not related to the fish value chain. For example, Hwan Sung (U) Ltd, a Korean TNC, also engages in the manufacturing of furniture, while the Alpha Group of Companies (Riyaz Kurji) produces meat and dairy products.

The latest entrant in this sector is the Source of the Nile Fish Farm Ltd (SON). The enterprise is pilot testing a commercial fish farm to meet the increasing demand for fish, which is partly attributable to the reducing fish stocks (Uganda, UIA, 2007). SON is jointly owned by the Lake Harvest Group, from Luxembourg and Greenfields, a Belgian owned enterprise, based in Uganda.

BOX 4

Distribution of enterprises engaged in agriculture among Uganda's 1 000 largest taxpayers in 2005/2006

The data on the largest taxpayers during 2005/2006 do not show dominance of foreign-owned companies in the agricultural sector. For example, the total number of companies ranked among Uganda's top 50 taxpayers shows almost double the amount of domestic companies compared to foreign-owned companies. Three foreign-owned companies were ranked among Uganda's top 50 taxpayers, compared with five domestic-owned companies. These companies were engaged in producing and processing of tobacco, sugar and edible oil.

Distribution of enterprises engaged in agriculture among Uganda's 1 000 largest taxpayers in 2005/2006

Ranking	Number of companies	
	Foreign-owned	Domestic-owned
1-10	1	0
11-20	1	1
21-30	0	0
31-50	1	4
51-100	1	0
101-500	12	6
501 -1000	9	9
Total	25	20

Source: Uganda Investment Authority

5.1 Transnational Corporations (TNCs) in agricultural production in Uganda

Uganda had 25 large foreign-owned companies¹⁴ engaged in commercial agriculture. These companies paid total taxes of at least US\$90 000 during 2005/2006¹⁵. The largest tax paying companies were engaged in tobacco processing (BAT (U) Ltd); sugar processing (Kinyara Sugar Works Limited) and edible oil processing (Bidco (U) Ltd). These three companies were ranked among Uganda's 50 largest taxpayers in

2005/2006 (Table 6). The data also show that 20 domestic-owned companies in agriculture and related activities were among Uganda's top taxpayers.

Most of the largest foreign-owned companies were concentrated in produce farming, processing and export of various products. The majority of TNCs were in coffee processing and export (five companies); fish processing and export (three companies); chrysanthemum growing and export (two companies) and the supermarket business (two companies). Foreign-owned companies also performed the following functions in the agricultural value chain: input supply; sale of agricultural produce on the domestic market; and testing of agroproducts, e.g. fish.

Activities of foreign affiliates

The foreign-owned companies in the coffee, flowers and fish sectors operate as limited liability

¹⁴ Wagagai was recorded twice as Wagagai Chrysanthemum Ltd and Wagagai Ltd. The company has been counted once for this study.

¹⁵ Metro Cash and Carry Limited has since closed its operations in Uganda.

companies and fully owned subsidiaries of the parent companies. Field interviews also show that these companies were established using financing from the parent company (as a loan or equity). Most of the companies interviewed were unwilling to provide information on assets and sales. The asset value of foreign-owned companies is not always higher than for comparable domestic-owned companies (see example of the coffee and flower sectors). Nevertheless, foreign-owned companies showed more efficient asset utilization (about 80 percent higher), in both sectors; generating more sales from their assets (and indeed had higher sales values) in 2007. All the companies interviewed were export-oriented.

There is no clear information to identify the proportion of foreign affiliates established by different types of foreign parents, including sovereign wealth funds and private equity funds, for the commercial agriculture sector.

Main competitive advantages, motivations and strategies

Transnational corporations operating in Uganda have the following competitive advantages over their domestic-owned counterparts:

Access to affordable finance: Most of the TNCs interviewed were established using financing from the parent company, at affordable interest rates. For example, Fiduga obtained a loan from its parent company at an interest rate of 2 percent per annum, with no deadline for repayment. Royal Van Zanten (U) Ltd financed 60 percent of its start-up costs using a loan from the parent company. On the other hand, Melissa Flowers Ltd, a domestic-owned company, obtained a loan from a Ugandan-based bank at start-up, at an interest rate of 11 percent per annum and a repayment period of five years.

Access to management and technical expertise: The Dutch-owned companies obtain material for propagation from the plant breeding laboratories owned by their parent companies and have expatriate management. The TNCs in the coffee sector can readily source and hire international expertise in the sector. For example, Kyagalanyi Coffee Limited employs two specialists in washed

coffee production from Colombia. The domestic-owned companies do not always have access in terms of contacts and financial resources, to hire similar expertise.

Ready market for commodities: The companies producing chrysanthemum cuttings directly supply their parent companies. The TNCs in coffee processing and export have the option to sell to their parent company or other buyers, if they are offering better terms than the parent company. Conversely, domestic-owned companies depend solely on international buyers.

High visibility: Uganda, through the UIA, has made tremendous efforts to attract FDI. A large, foreign-owned company planning to enter the market is therefore highly visible and could use this position to demand (and even receive) discretionary incentives. This situation has not occurred in the three sectors. However cases exist where foreign investors have seemingly received preferential treatment¹⁶ (Kalema, W., Nsonzi, F. (2008) .

Motivation for investing in Uganda

Most TNCs chose to invest in Uganda primarily because of production factors including: ready availability of raw material (fish and coffee); excellent climate for production and availability of water (flowers and cuttings);. Other reasons included the liberalization of the coffee sector and availability of a low cost, easily trainable, English speaking workforce. The reasons provided for investing in Uganda are provided in Box 5.

¹⁶ In 2004, the Government gave a comprehensive package of incentives, including a 25 –year holiday on income tax and a 17-year holiday on Value Added Tax, to encourage an investor, BIDCO (from Kenya) to establish a US\$120 million palm oil project. Other edible oil producers complained, alleging unfair treatment. The BIDCO project has been very slow in its implementation.

Tri-Star Apparel, an investor in garment manufacturing targeting the United States market under the Africa Growth and Opportunity Act (AGOA), received US\$15 million in Government guaranteed loans but closed with huge losses after five years, and failed to repay the loans.

BOX 5

Reasons for investing in coffee, flowers and fish sectors in Uganda, 2009

Coffee Processing and Export

Uganda is a good volume producer of coffee and has a liberalized market. Multinationals were invited to invest in the coffee industry following liberalization in the 1990s.

Flowers and Cuttings

Two novel features about Uganda are its climate and the availability of adequate water for farming. Uganda's climate is characterized by hot and humid conditions and all-year-round high temperatures, which are ideal for production of small budded (sweet-heart) roses and chrysanthemums cuttings.

Preferential Market Access:

Uganda's floriculture exports benefit from preferential tariffs to the European markets. Products that are destined for the USA market, quota and duty free under the African Growth and Opportunity Act (AGOA) preferential trade arrangement.

Fish Processing and Export

Uganda has extensive fresh water resources. Half of Lake Victoria, the second largest fresh-water lake in the world, is located in Uganda. The country is also endowed with an additional 160 smaller lakes and a number of rivers, including the Nile, on which substantive fish harvesting and farming can be done (Uganda, UIA, 2007).

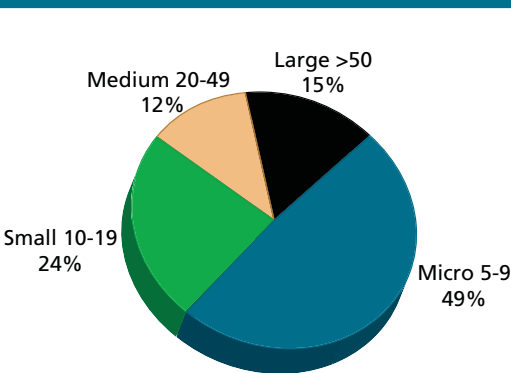
In 1995, floriculture enterprises formed the Uganda Flower's Exporters Association (UFEA). Through this association, members supported the setting up of a cold storage facility, Fresh Handling Ltd, to efficiently handle horticultural products in cold storage and arrange for appropriate air transport. Currently, members pay a handling fee, which includes the use of cold stores, the professional fee and air freight charges. Fresh Handling is presently operating at full capacity, and plans are underway to expand it.

Lake Victoria is home to the Nile perch (*Lates niloticus*), which is in high demand in Europe, and the wild tilapia (*Oreochromis niloticus*). Uganda's bio-physical environment also favours warm water fish aquaculture. In 2002, the Food and Agriculture Organization (FAO) estimated that over 70 percent of districts in the country have the potential for aquaculture development. Uganda's other competitive advantages include; (i) the low cost of labour (lower than many other countries); (ii) the highly trained professionals in fisheries related fields; and (iii) low cost of raw fish; the price is lower in Uganda than in neighbouring countries.

Source: Field interviews.

FIGURE 6

Average number of employees in formal enterprises in Uganda, 2006/2007



Source: Uganda Business Register, 2006/2007

Challenges

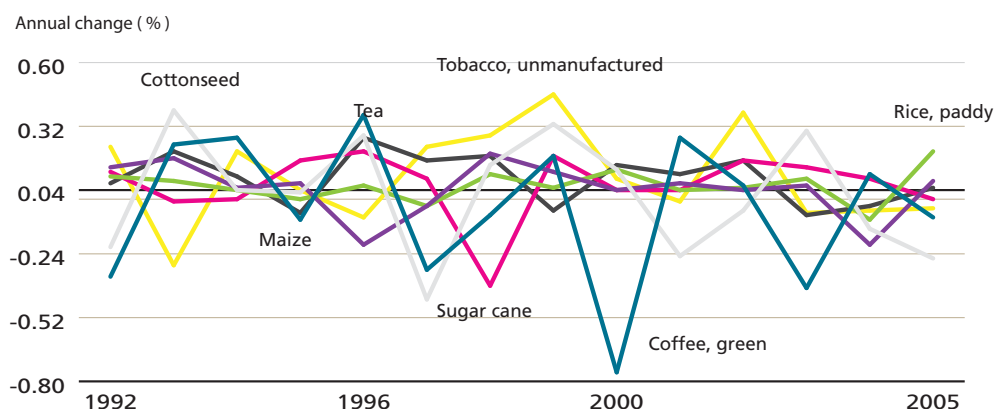
- i. *Delays in operationalizing Investment Policies:* Uganda's investment incentive of a ten-year tax holiday that was introduced in the Budget Speech of 2007/8 is yet to be operationalized.
- i. *High production Costs:* These are attributable to the high cost of electricity, the recent reintroduction of taxes on generator diesel and the high freight charges. Presently, air freight charges in Uganda range between US\$1.9 per kg and US\$2.2 per kg of product, compared with US\$1.6 per kg of product in Kenya.
- ii. In addition to the high freight charges, the fish processing sector faces risks from

TABLE 4
Employment in surveyed companies in commercial agriculture in Uganda, 2009

Commodity	No. of firms	Full-time		Part-time		Total		
		Average	Median	Average	Median	Average	Median	Sum
Coffee	3	52	25	243	279	295	304	884
Flowers and cuttings	5	147	180	217	240	324	350	1 620
Fish	3	96	37	92	85	187	122	562
Total	11							3 066

Source: Economic Survey, URT 2010

FIGURE 7
Trends in production of seven major crops in Uganda, 1991–2005



Source: FAOSTAT database, downloaded on 10 February 2009

(a) the decreasing fish stocks and (b) the inadequate budgetary support from the Government's Department of Fisheries, to enable it to effectively monitor landing sites.

6. Impact and implications of private investment in Ugandan agriculture

6.1 Impact on employment

Most of the companies in Uganda (73 percent) employ less than 20 people and are categorized as micro or small enterprises (Figure 6). The 11 surveyed firms employed a total of more than

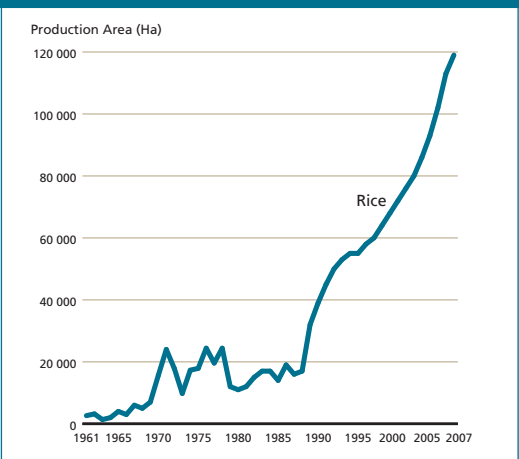
3 000 employees, including part-time workers. Their average number of employees is more than 50 and therefore they are classified as large companies. These companies contribute considerably to employment in Uganda, especially those in the flower sector because of the high average number of employees per firm. There was no notable distinction in employment size between foreignowned and domestic companies.

6.2 Impacts on agricultural production in Uganda

Positive impacts

Transnational corporations such as Tilda Uganda Limited have contributed to increased food

FIGURE 8
Area under rice cultivation in Uganda,
1961–2007



Source: FAOSTAT database, downloaded on 10 February 2009

production in Uganda. According to the FAOSTAT database, between 1991 and 2005, among seven major crops: coffee, maize, rice, cotton, sugarcane, tea and tobacco, rice was the only major crop to register a consistently positive increase in the production area (Figure 7). Tilda (U) Limited, a subsidiary of Tilda Limited, United Kingdom, contributed to sustaining this trend. After the company started operating in Uganda in 1997, the production area for rice increased from 60 000 hectares in 1997 to 119 000 hectares in 2007 (Figure 8).

Negative impacts

The considerable number of large fish processing companies has contributed to the high demand for Nile perch fish, which in turn has led to the depletion of Nile perch fish stocks in Lake Victoria. Although fish is a renewable resource, there should be mechanisms in place to ensure that this resource is continually replenished.

Uganda does not have export quotas for the fish sector. Fish is harvested mostly from Lake Victoria and fish stocks are replenished seasonally in line with natural fish breeding patterns. Therefore, overfishing (in that the quantity of fish harvested exceeds the new fish bred in a given

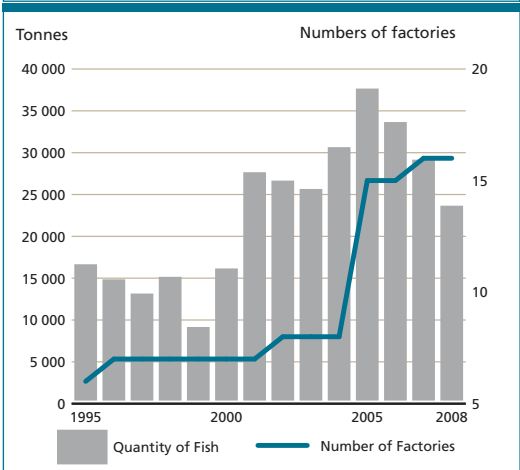
season), or harvesting of immature fish are likely to result in a decrease in fish stocks.

In the fish export sector, between 2001 and 2004 the quantity of fish exported increased considerably to about 30 000 tonnes from an average volume of 15 000 tonnes in previous years, 1995–2000. The increased quantities of fish have exerted pressure on the existing fish exporters to either close operations or expand to other landing sites to maximize their catch, as discussed earlier. The volume of fish exports from Uganda declined from 36 614 tonnes in 2005 to 22 731 tonnes in 2008. It is important to note that fish companies are not directly engaged in fishing activities. Instead, they contract fishermen and other suppliers to supply fish to their processing plants.

6.3 Impact on agricultural exports

Uganda exported commodities valued at US\$889.43 million in the financial year, 2005/2006 (Uganda: Background to the Budget 2007:18). Exports of the three selected commodities (coffee, flowers and fish), where TNCs are dominant, accounted for 39.1 percent of that total value.

FIGURE 9
Relationship between quantity of fish
harvested and number of fish factories in
Uganda, 1995–2008



Source: Uganda Fish Processors and Exporters Association, 2009

TABLE 5
Sources of investment financing for selected TNCs operating in Uganda

Company	Source country	Percentage of funding sourced from :		
		Bank overseas/Parent company	Bank in Uganda	Other sources
			%	
IFTRA (U) Ltd	UAE	100		
Royal Van Zanten Ltd	Netherlands	60	40	
Great Lakes Coffee Ltd	Greece		95	5
Xclusive Cuttings Ltd	Netherlands	10		90
Kyagalanyi Coffee Ltd	Switzerland	100		
Fiduga Ltd	Netherlands	100		

Source: Field interviews, May 2009.

6.4 Impact on agricultural financing

Access to finance for smallholder farmers

Small farmers who work with TNCs usually have improved access to finance. As Box 7 illustrates, foreign-owned enterprises sometimes provide credit facilities to contract farmers or out-growers so that they do not need to obtain credit from financial institutions. The financing provided by the foreign-owned enterprises (including TNCs), is at a low interest rate and is usually tied to farmers' outputs. What the farmer borrows from the enterprise is deducted from earnings. Although some domestic-owned enterprises may also be providing credit financing to smallholder farmers, the authors could not find supporting information to this effect.

Impact on the domestic banking sector

Transnational corporations in the three sectors have limited impact on the domestic banking sector. Most of these companies source funding either from their parent company or from a bank overseas. Findings from the field interviews showed that only two companies, Royal Van Zanten and Great Lakes Coffee Ltd, obtained investment financing from a bank in Uganda (Table 6).

6.5 Impact on technology and knowledge sharing

Agricultural technologies include labour technologies: soil fertility management, crop

protection, disease control, farm management, on-site storage, and non-labour technologies such as improved agricultural inputs (Uganda: Uganda National Household Survey 2005/06). The Uganda National Household Survey reports that the percentage of agricultural households that utilize labour technologies ranges from 7.1 percent to 23.2 percent (UBOS, 2005: 104). Further, only 7.3 percent of agricultural households reported that they were visited by an extension worker. Below, the authors highlight how the companies in the coffee and flowers sectors are utilizing agricultural technologies:

- The nature of the flower and cuttings sector requires a 100 percent utilization rate of labour and non-labour agricultural technologies to ensure profitability. Successful production of flowers and cuttings requires that the company ensures soil fertility management, crop protection, disease control, farm management, on-site storage, and utilizes agricultural inputs. For example, flower companies use fertilizers and agro-chemicals purchased from Balton (U) Ltd, a TNC, or Greenhouse Chemicals Ltd (agrochemicals only), a domestic company. They apply steam to the soil to ensure disease control, and are obliged to protect their crops by constructing greenhouses.
- Transnational corporations in the coffee sector are becoming involved in the lower

BOX 6

Introduction of upland rice varieties in Uganda

Prior to 2002, rice in Uganda was predominantly grown on paddy fields. This limited the production capacity of Uganda, an effect that was due to two reasons: low rice yields and a long maturing cycle of six months. Between 1997 and 1999, Tilda partnered with the West African Rice Development Association (WARDA)* in the field-testing of 30 upland rice varieties on Tilda farms. With further funding from USAID's Investment in Developing Export Agriculture (IDEA) project, Tilda trained field workers and farmers and established on-farm demonstrations in three additional districts in Uganda. In 2002, Uganda officially released two upland rice varieties from these activities - WAB 165 and WAB 460 (New Rice for Africa, Nerica 4), making the latter only the third NERICA variety to be released anywhere.

In the early years after its release, Tilda was the leading adopter of this new variety. However, the adoption of Nerica 4 by smallholder farmers also increased significantly. This increase was mainly due to two reasons: deliberate government promotion of upland rice to increase household income and food security, and the high rate by which Tilda was losing her highly trained employees who opted to become farmers themselves due to the high returns offered by upland rice production.

Source: WARDA. "The Africa Rice Centre – Recognizing WARDA's role in sub-Saharan Africa. WARDA Annual Report 2002/03 Features.<http://warda.org/publicationsAR2002-03/recognizing%20warda%275%20role.pdf>

* WARDA was renamed "WARDA – The African Rice Centre" in January 2003.

BOX 7

Interviews with farmers planting the Monsanto DEKLAB Hybrid Maize Variety

"I have been in the maize growing business for seven years and plant five acres of maize per season. I own a total of 12 acres. I plant the DEKLAB hybrid from Monsanto. Yields every season are between 2 and 3 tonnes per acre. I use about 20 kg of seed for an acre. A 5 kg bag of DEKLAB seed costs about US\$2 (UGX 16 000).

In 2005, I tried to replant part of my harvest, because I did not have enough money to purchase seed from the stockist. The yields this season were lower by 30 percent. Consequently, I now buy the seed I need every season to maintain the high yields. The main challenge I have with this hybrid is that to have maximum yields, the rains have to be good and the soil well fertilized".

Richard Nusu, farmer in Jinja. Interviewed on 14 May 2009

"I have been in the maize growing business for eight years and plant about 20 acres. I buy seed every season from stockists, as efforts to replant my harvest (in previous years) produced no yield. I plant the DEKLAB Monsanto hybrid. To get yields as high as 3 tonnes per acre, the rains have to be very good as this breed is a heavy feeder. With this good weather, one maize cob can have up to 18 lines of seeds. I plant 20 kg of seed per acre. Another challenge I face is the counterfeit seeds on the market, which when planted yield nothing. Unfortunately, the counterfeit seeds are sold in the same packaging as the Monsanto, DEKLAB variety'.

John Wabwire, farmer in Mukono. Interviewed on 15 May 2009

BOX 8

Partnerships with EPOPA to introduce (a) Standards for Organic Coffee and (b) Sustainable Fisheries and Inspection Protocols

Introduction of Organic Coffee Production by Kawacom (U) Limited

Kawacom is a Ugandan based coffee exporting company, and member of the Ecom Agro Industrial Corporation, an international agribusiness enterprise. In 1998, Kawacom initiated organic coffee production in Uganda in conjunction with the Export Promotion of Organic Produce from Africa (EPOPA). The project was initiated in the coffee-growing district of Bushenyi in western Uganda. By 2002 after EPOPA had withdrawn their involvement, Kawacom independently started two other programmes in the Sipi and Paidha areas. These two areas have 13 000 coffee farmers. Kawacom trained farmers and field officers through the use of demonstration plots and nurseries (Tulip, 2005).

Source: Uganda, UCDA, 2006: 14

Greenfields (U) Limited – International Standards for Fisheries

In 2004, Greenfields constructed a fishing landing site in Nakasongola district on the shores of Lake Kyoga. The site was constructed in accordance with EU standards. Greenfields partnered with EPOPA in the training of fishermen on fish quality and standards. The objective of the construction project and the training was to comply with UgoCert standards of sustainable fisheries and inspection protocols.

Source: Beule (2008)

end of the value chain. They are increasing providing training to local farmers to ensure proper handling and storage of coffee. They also supply tarpaulins for improved coffee drying.

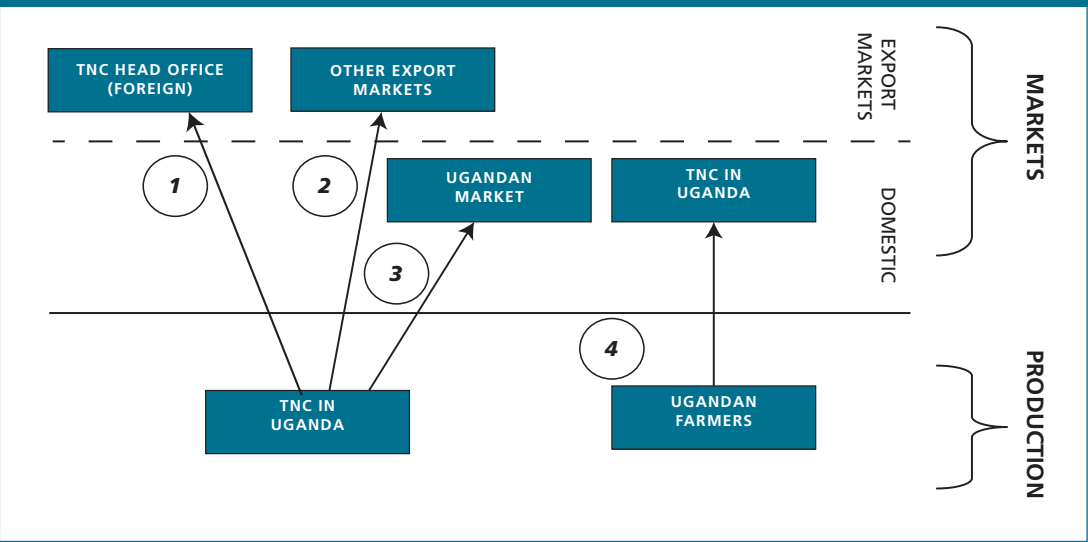
Research is also being undertaken currently by the private sector to produce new seed varieties. According to the Variety Release Committee of the Ministry of Agriculture, Animal Industry and Fisheries, a total of 41 seed varieties were released by the private sector between 2000 and 2008 (Mugoya, 2009). These varieties were for maize, rice, beans, soya beans, sorghum, barley, sunflower, cowpeas and sweet potatoes. They were developed to address specific production constraints including low yields, drought persistence, or pest and disease persistence. Two notable examples are: (i) the introduction of the upland rice variety (Nerica 4) into Uganda by Tilda (U) Limited, with support from USAID's Investment in Developing Export Agriculture (IDEA) project and the West African Rice Development Association (WARDA); and (ii)

the introduction of the DEKLAB maize variety by Monsanto (U) Ltd.

Introduction of the NERICA 4 Rice Variety into Uganda: The introduction of the Nerica 4 upland rice variety, which was led by Tilda (U) Limited and the USAID IDEA project, has significantly increased the production of rice, even by smallholder farmers, and has contributed to Uganda's self-sufficiency in rice production (Boxes 6 and 7). Previously, most of the rice produced in Uganda was imported.

Introduction of the DEKLAB hybrid maize variety: Monsanto opened a branch in Uganda in March 2000. Currently, Monsanto (U) Ltd, deals in two products: DEKLAB Hybrid maize and vegetable seeds. The company mostly sells to distributors and suppliers and indeed, is the main supplier of maize hybrid throughout Uganda. The DEKLAB hybrid maize has higher yields than other maize seed brands on the Uganda market, e.g. Longe-5 (a maize hybrid developed by Uganda's Kawanda

CHART 4
Avenues for access to domestic and international markets



Source: Prepared by author

Research Institute).¹⁷ Farmers reported that before the introduction of the DEKLAB hybrid maize, one acre of land could produce 200 kg of maize, from which farmers could reserve seeds for replanting for the next season. Presently, with the DEKLAB Hybrid and other hybrids on the market, one acre produces between 2 and 3 tonnes, an increase of up to 12-fold.

The introduction of the DEKLAB hybrid variety, however, has created dependence by farmers on Monsanto's seed. Farmers interviewed indicated that they need to purchase the Monsanto hybrid every season in order to have consistently high crop yields.

6.6 Enforcement of production and processing standards

Transnational corporations in the three sectors (coffee, flowers and fish) are export-oriented. Therefore, their activities must adhere to the various standards in their respective destination

markets. Fish exporters adhere to EU fishing standards and protocols, flower firms adhere to MPS standards,¹⁸ while coffee companies adhere to standards set by UCDA at the beginning of the coffee season. In addition, some of the exporting companies are ISO certified. Some TNCs, specifically Kawacom (U) Ltd, have also introduced production standards for specialized products (organic coffee) as presented in Box 8.

6.7 Investment in training

Training in agricultural production is critical to improving the existing skills of farmers. All the companies that were interviewed for this case study reported that they train their employees. The general training is conducted mainly for the low-level and mid-level workforce. It is provided on-the-job, and covers areas such as crop harvesting, general safety standards and cleanliness standards. Specialized training is provided to top level management in the different departments and includes modules such as ISO certification, production handling and quality control.

¹⁷ Longe-5 yields about 16 bags (1.6 tonnes per acre), while Monsanto yields between 25 and 32 bags (2.5 - 3.2 tonnes) per acre.

¹⁸ MPS is a Dutch audit company.

TABLE 6
Market destinations for selected exporters

Company	Sector	Avenue 1		Avenue 2	
		Destination	% of exports	Destination	% of exports
Wagagai Ltd	Flowers	Deliflor (Holland)	100	Various	
Kyagalanyi Coffee Ltd	Coffee	Vocafe (Switzerland)	< 20		
Royal Van Zanten Ltd	Flowers	Royal Van Zanten (Holland)	100		
Kawacom Ltd	Coffee	Ecom Industrial	100		
Xclusive Cuttings Ltd	Flowers	Floritech (Holland)	100		
Lake Bounty Ltd	Fish			EU, USA, UAE	100
Fiduga Ltd	Fish	FIDES BV	100		

Sources: Field interviews; "Uganda's Horticulture Veteran, Wagagai awarded" West African Business Week 25 February to 2 March 2008.

6.8 Market development

Transnational corporations are engaged in agricultural production in Uganda with the main objective of sourcing raw materials. This buyer-supplier arrangement is beneficial to both parties. For the supplier (TNC subsidiary in Uganda), the TNC is a ready market and a reliable source of income. For the buyer, there is a steady source of raw material.

6.9 Market access and exports

Positive impacts of market access

There are four different avenues through which markets for agricultural products can be accessed (Diagram 4). With all these avenues, TNCs either have a direct or indirect involvement in the production process. The TNCs in the flower sector are directly involved in agricultural production (FIDES BV, Royal Van Zanten). TNCs in the fish and coffee sectors mainly contract farmers/suppliers (Kawacom), or hire outgrowers.

Avenue 1: From Subsidiary in Uganda to Main Company

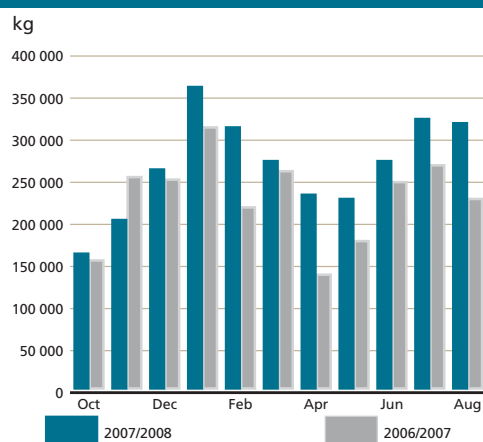
Several TNCs set up operations in Uganda in order to source raw materials for their operations abroad. In these cases, nearly 100 percent of the TNC's production output in Uganda is exported directly to the parent company. Examples of this avenue are in chrysanthemum cuttings: FIDUGA (U) Ltd exports chrysanthemum cuttings solely

to FIDES BV Holland; Royal Van Zanten exports cuttings to Royal Van Zanten Holland; and coffee, where Kawacom exports most of its coffee to Ecom Agroindustrial Corporation Ltd.

Avenue 2: From TNCs in Uganda to other export markets

As the TNCs expand their production capacities in Uganda, they search for new markets to either absorb their increased output, or to increase their

FIGURE 10
Uganda coffee exports in 2006/2007 and 2007/2008



Source: UCDA Annual Report 2006/07

regional/international presence. This avenue is employed by Kyagalanyi Coffee Ltd and IFTRA (U) Ltd.

Avenue 3: From TNCs in Uganda to the Ugandan market

The third avenue pertains to TNCs that engage in agricultural production in Uganda and then sell their output on the Ugandan market. Most of the companies in the selected sectors are exclusively export-oriented. From the field interviews, only three out of eight companies sell on the domestic market. Not surprisingly, domestic sales are a very small portion of total sales (less than 1 percent for the flower companies, and less than 5 percent for the fish processing company). The TNCs in other sectors that sell on the Ugandan market are mainly motivated by the potential for import substitution and usually receive strong government support, for example, Tilda (U) Ltd in the rice sector.

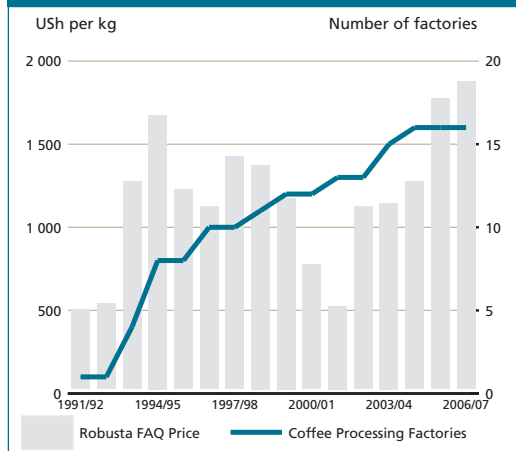
Avenue 4: From local farmers direct to TNC in Uganda

Transnational corporations in Uganda serve as a market for farmers' agricultural produce. Farmers produce under contract and then supply to the TNC after harvest. Such arrangements usually require the farmers to undergo training to produce the specific type of product that is required as a raw material by the TNC. In this case, the TNC is not engaged in production, but instead induces production.

Negative impacts of market access

Over-reliance on one commodity: Markets induced by TNC involvement could also have negative effects. There are two main negative aspects that are both related to price risk. Access to markets induces farmers to produce the marketable commodities. However, there may be an over-reliance on these commodities, at the expense of other agricultural products. This over-reliance can be risky: when the price of the commodity drops, farmers are at risk of incurring heavy losses, and are discouraged from producing in subsequent seasons. This situation occurred during the coffee boom of 1994/95 during which farmers increased production, and the subsequent decline in prices resulted in

FIGURE 11
Relationship between number of coffee
processing factories and FAQ price for coffee
in Uganda, 1991–2007



Source: UCDA (2003); UCDA (2007); UCDA (2008: 11)

the neglect of coffee farms and contributed to the spread of the coffee wilt disease¹⁹.

Impact of the global economic crisis: Although the long-term impacts of the global financial crisis on commercial agriculture in Uganda are not yet known, there is evidence suggesting that some sectors are being affected even in the short term. For example, since 2008, sales in the flowers and cuttings sector have dropped by nearly 20 percent. However, it is important to recognize that the industry was already going through a series of economic problems such as increased production costs – especially freight costs (increasing by 15 per cent in three years) – and increased competition from neighbouring Kenya and Ethiopia. Flower exporters in both countries incur lower freight charges of US\$1.67 per kg, compared to US\$2.20 per kg for flowers from Uganda going to the same destination.

Conversely, according to the East African Fine Coffee Association (EAFCA), the coffee industry, thus far, appears to have escaped the effects of the economic crisis. Indeed, overall coffee exports in the 2007/2008 coffee season were

¹⁹ Interview with Kyagalanyi Coffee Limited.

BOX 9

Community services provided by selected TNCs in Uganda, 2009

Sector	Number of firms	Community activities
Flowers	41*	Construction of schools
		Construction on water points like boreholes and wells
		HIV/AIDS prevention and counselling services
		Construction of football pitch
		Construction of clinic
		Erection of power lines
		General medical services, e.g. malaria treatment, family planning
Coffee	1	Construction of toilets
		Micro finance services

Sources: Field interviews; "Uganda's Horticulture Veteran, Wagagai awarded" East African Business Week 25 February to 2 March 2008

* Each flower company is engaged in at least four different community activities

higher than in the 2006/2007 season (Figure 10). There are two likely reasons for this occurrence: first, Uganda's coffee exports account for a small share of global coffee trade, only 2.3 percent in the 2006/07 season (Uganda, UCDA, 2008: 12). Second, there is increased emphasis on the export of organic and washed coffees to niche markets.

6.10 Increased competition

The participation of TNCs has increased the level of competition in the commodity market. Since the selected sector are export-oriented, the impact is at the supply level, and not consumer level. Increased competition has both positive and negative effects on the industry.

Positive impact: Increased demand leading to increased farmgate prices

Increased competition for raw materials has driven up the commodity prices, to the benefit of farmers. In the coffee industry, exporters compete for high quality coffee, which leads to increased prices for the farmers.

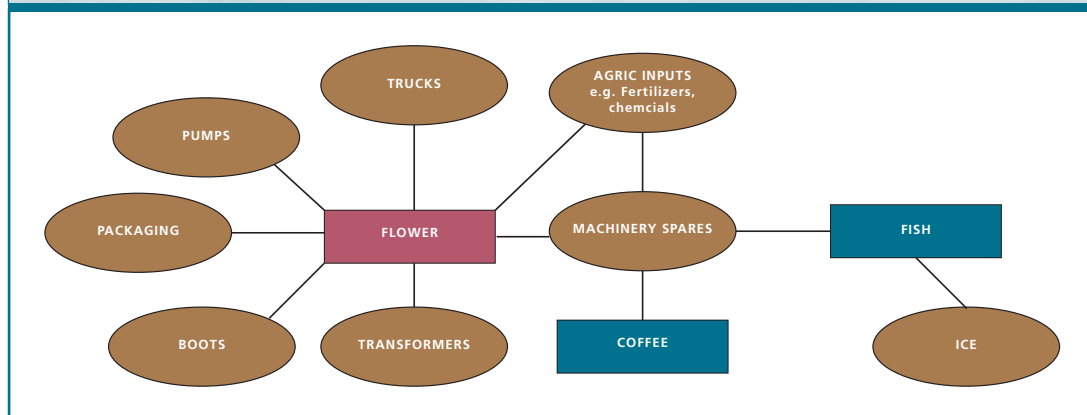
The fall in the world coffee price in the 2000/01 and 2001/02 coffee seasons led to a subsequent fall in the price paid to local farmers. In February 2002, the price at the local mills

ranged from US\$0.22 – US\$0.24 per kg. The following month, the world price was on the road to recovery, and increased by 30 percent. The price paid in Uganda, however, increased appreciably more: by over 60 percent, to US\$0.36 – US\$0.39 per kg. This sharp increase was attributed to increased competition for two reasons: low supply from farmers and the need for the coffee exporting companies to fulfil their contractual obligations with their international buyers (Sayer, 2002:9).

The data also show that the increased competition by the coffee sector as a whole has enhanced the bargaining power of farmers. This effect, however, was more evident in the period starting 2001/2002, where there was a strong positive correlation between the number of coffee processing factories and the FAQ Price for coffee, of 0.81. Starting in 2001, three large domestic companies joined the coffee sector. However, it was difficult to isolate the contributions of domestic and foreign-owned companies on the impacts of the increased bargaining power of farmers. There was little correlation between the FAQ Price and quantity exported (correlation coefficient of 0.27), or the FAQ Price and the international price for Robusta coffee (correlation coefficient of 0.16)

CHART 5

Industry linkages in the flower, fish and coffee sectors



Source: Derived from field interviews

Negative impacts: Increasing demand has squeezed out (local) companies

Increased competition for limited supplies of fish from new players has led to the closure of most of the domestic-owned fish processing factors. Whereas the TNCs have used their ample resources to consolidate operations or to expand to new landing sites in search of fish, the domestic companies have not been able to sustain operations and have closed. Three of the four Ugandan-owned fish processing companies have closed down: Gomba Fish Industries Ltd, Ngege Ltd; and Byansi Fisheries Ltd.

6.11 Community impacts

Transnational corporations have contributed to the increased provision of social services and increasing demand for goods and services in the communities where they operate. With the exception of the new companies (those established after 2007), all of the firms interviewed reported that they contribute to their communities in various ways (Box 9).

Some domestic-owned companies also reported community programmes that they are directly engaged in, for example, construction of a local borehole, supply of fish to orphanages, providing scholastic materials, construction of community toilets and allowing the community

to access medical services provided by the company for its workers. Most of these benefits are provided by companies in the flower sector.

The flower companies are more involved than the coffee and fish processing and exporting companies because of their direct involvement in the production chain. A survey of five flower farms and the communities in which they are located, conducted in 2003, revealed very positive findings in terms of socio-economic impact. The survey covered five flower farms, 25 retail shops, nine clinics/ drug stores, and over 100 employees of the flower farms (Donohue, 2003: vi). A summary of some of the relevant findings are outlined below:

- *Increased business:* Slightly less than half (44 percent) of the shopkeepers indicated that most of their customers were employed on the nearby farm. Similarly, five out of the nine drug stores indicated that most of their patients/customers were employed by the flower farm;
- *Increased medications:* Seven of the nine drugstores noted that the availability of medications had improved dramatically since the establishment of the flower farm;
- *Land purchase:* 18 percent of employees were able to buy themselves land;
- *Building a house:* 11 percent of employees were able to build their own house;

BOX 10

Examples of environmental impacts by TNCs in Uganda

Positive impacts in the floriculture industry

The Code of Practice audit report and a survey of five flower farms revealed that all the five utilize proper run-off control measures. Further, all the five use soak pits for the disposal of crop chemical rinseate (Donohue, 2003).

Comparison with Kenya's flower industry

This is not the case, however, in neighbouring Kenya, one of the leading flower exporting countries in Africa. The country's floricultural sector is dominated by large-scale flower farms around the Rift Valley area near Lake Naivasha, Kiambu and Thika. Much as the industry has grown steadily over the years; the environmental impacts are significant. Since most farms have neither soak pits nor wetland areas for the disposal of pesticides and chemical products, the waste ends up in the lake leading to water pollution. Further, as the industry expands, the land is continually being encroached upon, limiting human and animal access to the lake (Fedha, 2009).

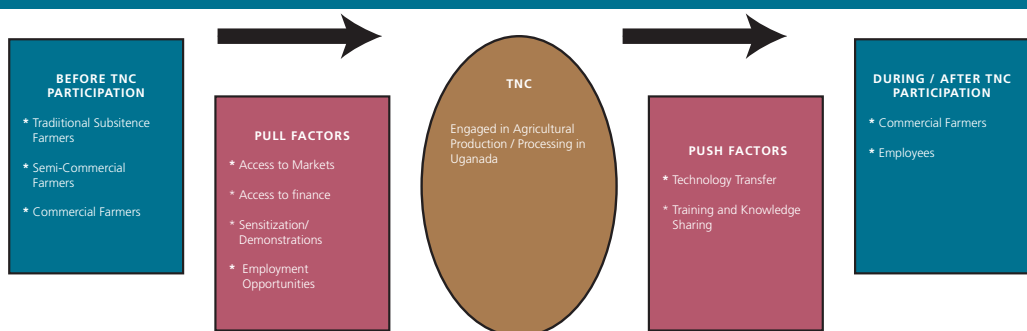
Forest depletion to grow palm oil

Kalangala district is a collection of 84 islands on Lake Victoria. The total land area is 9 067 square kilometres (906 700 hectares), of which 26 783 hectares is forest cover (about 3 percent of the total land area in the district). Bidco, with headquarters in Kenya, is the leading marketer of edible oils, soaps and hygienic products in East and Central Africa. In 1998, the Uganda government gave the company's Ugandan subsidiary, BIDCO Uganda Ltd, ten hectares of land in Kalangala to grow palm oil. As of 2008, the land allocated to BIDCO had increased to 26 500 hectares, of which about 3 200 hectares is forest cover

Sources: "Uganda Districts Handbook, 2005-2006" 2005. Fountain Publishers: Kampala (86-87); Bidco. <http://bidco-oil.com/regional/index.php?conid=2>. Accessed on 12 May 2009; "BIDCO to undertake largest private Project", The New Vision, 10 November 2005, <http://newvision.co.ug/D/8/220/464984>. Accessed on 12 May 2009; "Government to limit land for foreigners" The Daily Monitor, 25 March 2009.; http://monitor.co.ug/artman/publish/news/ Govt_to_limit_land_for_foreigners_82092.shtml Accessed on 12 May 2009

CHART 6

Push and pull factors of TNC participation in commercial agriculture in Uganda



- *Savings*: 63 percent of employees reported that they save money each month.

Growth in the three selected commodity subsectors has led to growth in other sectors and industries to which they are linked. Such industries include packaging, vehicles (trucks), machinery (generators), pumps, footwear (boots) and motor vehicle spare parts. The flower sector has the most widespread linkages because flower firms are directly engaged in production, as illustrated in Diagram 5. All the flower companies interviewed reported that they purchase packaging materials from Riley Industries Ltd, a domestic company. Prior to 2007, the companies used to import boxes for packaging from Kenya. However, in 2007, Riley Industries purchased new machinery that meets international standards, and started producing the type of boxes required to package cut flowers for export. The three companies that released their cost information spend up to US\$200 000 annually on purchasing boxes from Riley Industries Ltd.

6.12 Impact on the environment

The involvement of TNCs in agricultural production in Uganda has had both positive and negative environmental impacts. On the positive side, the companies have set, implemented and encouraged the use of environmentally friendly production techniques and practices. On the negative side, some activities of TNCs have led to the degradation of the environment and depletion of natural resources.

6.13 Support from third parties

Transnational corporations have also been successful in Uganda's agricultural sector because of the presence of a ready export market, and the role of third parties. The role of third parties became important following the failure of both the government and the private sector to provide specialized support service for the various subsectors of the agricultural economy, resulting in the emergence of a third player. This third player fills the gap adequately on many occasions, by providing critical support to the

industries. This support boosts the industries' performance in terms of revenues, export share, capacity and competitiveness. Two examples of such *third parties* are the Export Promotion of Organic Products from Africa (EPOPA) and the Uganda Flower Exporters' Association (UFEA). The former has been at the forefront in engaging with TNCs in the training of farmers on farming methods and organic certification procedures. The UFEA, on the other hand, plays a major role in addressing the policy issues faced by flower exporters. The association is an advocacy forum for flower exporters and has registered significant successes since it was formed in 1993.

7. Conclusions and recommendations

Foreign investment in commercial agriculture by individuals and TNCs, though growing since 2000, is still relatively low. Most of the companies engaged in commercial agriculture – about 70 percent of the total – are domestic-owned. This is also illustrated by the small number of planned projects in the sector that were registered by the UIA between 1992 and 2008. A total of 124 projects have been registered in the sector and they account for just 3.5 percent of all projects registered by the Authority. About half of the registered projects were in four subsectors: fish, general farming, flowers, and forestry.

This study has demonstrated that there was no notable difference in impacts of TNCs and domestic companies on employment; they were collectively high. Transnational corporations had positive impacts on: (i) increasing the production of rice and contributing to rice sufficiency in Uganda; (ii) increasing agricultural exports: for example TNCs accounted for 59 percent of coffee exports in 2008/2009; (iii) improving access to finance for smallholder farmers; (iv) introducing new hardy or high-yielding crop varieties (maize and rice); and (v) disseminating input technologies, providing farmer training to improve product quality, and enforcing production standards to ensure that the commodities comply with international export standards. Transnational corporations have also

contributed to opening international markets to Uganda's export commodities and to creating linkages with local suppliers of raw materials and packaging materials. These corporations have created linkages – mostly in the flower industry – with local communities, and indeed, have supported community projects in health, education, recreation and infrastructure (roads and electricity).

Negative impacts of TNCs were noted in the following areas: (i) contributing to the depletion of fish stocks; (ii) creating dependence of farmers on the company for seed (in the case of the DEKLAB maize hybrid supplied by Monsanto (U) Ltd); and (iii) environmental degradation resulting from the conversion of a tropical forest into a palm oil plantation by Bidco (U) Ltd

With respect to the policy environment, it was noted that Uganda has policies in place to attract investment in commercial agriculture. However, the country does not have specific policies to benefit fully from investment in the sector through value capture. Companies are creating linkages along the value chain mostly through their own initiatives and through the necessity to ensure product quality and reliability of supply of raw materials.

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PART
FOUR

BUSINESS MODELS FOR
AGRICULTURAL INVESTMENT -
IMPACTS ON LOCAL
DEVELOPMENT

Cambodia:

Local impacts of selected foreign agricultural investments¹



1. Introduction

Cambodia, situated on the Indochinese peninsula, is endowed with huge freshwater reserves and an immense area of arable land. The country is also the destination for investment of some food-importing countries, including China, Kuwait, Malaysia, Qatar, Republic of Korea and Viet Nam. State private land, in the form of economic land concessions (ELCs), is leased to concessionaires for agricultural exploitation for a maximum of 99 years (GTZ 2009). Currently, 85 companies, both domestic and foreign, have been contracted to exploit a total land area of 379 034 hectares (MAFF 2010).² Non-governmental organizations (NGO) and international organizations have expressed critical concerns as to the potential effects of ELC holders' activities on the poor local communities in the immediate vicinity. To date, there has been little research on the economic, environmental and social impacts of FDI inflow to agriculture, or on its benefits for Cambodia. However, global examples of the costs and benefits of such investments show that although large-scale agricultural land exploitation could restrict communities' access to land and water, it could also contribute to the country's economic development through investors' participation in developing local infrastructure needed for agricultural expansion.

1.1 Study objectives

This study aims to examine the validity of some of the concerns expressed in Cambodia, by shedding some light on the potential effects of FDI in agriculture on local communities and their environments. Initially, it investigates the extent and nature of FDI in agriculture and its subsectors, including crops, livestock, food-processing, forestry and fisheries. It then goes on to analyse the policy and regulatory environment and institutions governing and facilitating FDI as well as prevailing business models – in the acquisition of agricultural land. It concludes by providing some policy recommendations in response to the challenges facing the sector.

1.2 Methodology

Data on land acquisition, particularly data on contract arrangements and ex-post and ex-ante data on socioeconomic and environmental indicators in the selected project locations, are rather patchy. The study was based mainly on interviews with key informants and with communities in the concession areas; it applied a counterfactual approach, with the aim of providing policy-makers and other relevant players with a general overview of the likely impacts of certain FDI projects on local communities and their environment. Case studies of FDI in the subsectors were produced based on past research and on consultation with government officials and community representatives residing near concessions. Focus group discussions (FGDs) were held with local communities and village authorities to capture the main economic, social and environmental impacts. Economic indicators included income, employment, development of irrigation and roads; social indicators included health care, water and land access and land

¹ This chapter is based on an original research report produced for FAO by Saing Chan Hang, Hem Socheth, Ouch Chandarany, Phann Dalis and Pon Dorina, Cambodia Development Resource Institute

² For a detailed profile of each investment firm, see www.elc.maff.gov.kh/profiles.html

conflicts; environmental indicators included soil quality, water quality, use/overuse of pesticides and fertilizers and cutting down of trees (forest cover). The study also approached foreign investors to discuss the costs and benefits of their projects and the potential hurdles to their investment in Cambodia. The team also gathered secondary data from the Ministry of Agriculture, Forestry and Fisheries (MAFF), the Council for the Development of Cambodia (CDC), the National Institute of Statistics of the Ministry of Planning (MoP), the Ministry of the Environment (MoE), and international organizations.

1.3 Scope and limitations

The broad nature of its scope meant that the study did not set out to reveal critical details of FDI projects and investment hurdles in agricultural subsectors. Rather, the aim was to investigate selected projects and firms in those subsectors, based on consultation with government officials in charge of investment monitoring or facilitation, namely, officials from MAFF and CDC, and the expert judgement of the study team. More importantly, given the time constraints, the study strived to reveal the overall picture of FDI in those subsectors only, compiling the likely effects on local communities and their environment by applying a counterfactual approach.³ Efforts were made to consult foreign investors, but this was difficult as they were hard to trace: only two were interviewed in the end.

³ The pitfall of this approach is that measured impact could be either over or underestimated: asking respondents to compare their socioeconomic status before and after the project is highly subjective. However, the study aims mainly to provide only an overall picture of the likely effects of certain projects. In-depth impact analysis of specific projects can be investigated later, applying more sophisticated project evaluation techniques, such as propensity score matching, before and after, difference-in-difference and instrumental variables.

2. Role of agriculture in the national economy

Despite a significant reduction in the share of agriculture in the total national output during the past two decades – from around 46 percent in 1993 down to about 28 percent in 2009 (MEF 2010) – the sector remains one of the key growth-enhancing pillars as well as a poverty-reducing tool. This is because around 85 percent of the total population lives in rural areas, the majority of whom rely on agriculture (mainly paddy rice) as their primary income and source of livelihood. As outlined in the government's Rectangular Strategy Phase I and Phase II, the National Strategic Development Plan (NSDP) 2006–2010, and the NSDP Update 2009–2013 in pursuit of growth, employment, equity and efficiency, agriculture ranks high among the four broad strategic development priority angles. The other three are rehabilitation and construction of physical infrastructures; private sector development and employment generation; and capacity building and human resource development.

2.1 Contribution of agriculture to the national output

Prior to 2000, agricultural production accounted for almost half of Cambodia's national output, reflecting the country's agrarian nature. However, the sector's contribution has declined markedly over the past two decades. The latest data from MAFF show it contributed only 33.5 percent of the country's gross domestic product (GDP) in 2009, down from 45.3 percent in 1993. The sector's share of employment of the national workforce also shrank, from 67.4 percent in 2002 to 55.9 percent in 2007, although this remains substantial despite the slump. This significant change in the structure of the Cambodian economy is a result of a rapid expansion in manufacturing industry, namely, textiles and clothing and the services industry. Annual average growth (gross value added) in the sector was at about 5.6 percent from 2002 to 2009. Such slow growth can be attributed to weak rural-urban

linkages; unsecured land ownership; sluggish investment, both public and private, particularly in irrigation, transport and agricultural research; and limited support infrastructure such as availability of and access to finance and affordable and reliable energy and telecommunication services (World Bank 2004a, 2004b, 2006). The sector is dominated by crop cultivation, mainly paddy rice: crops contribute around half the national agricultural output. Fisheries, including freshwater, aquaculture and marine, account for approximately 33 percent, livestock and poultry contribute about 16 percent, and forestry and logging around 8 percent of total agricultural output.

2.2 Production and harvested areas

Alongside rapid growth in the manufacturing industry in the past decade, an expansion of **paddy rice**, the staple food in Cambodia, has also been noticeable. The area under paddy rice increased from about 2.4 million hectares in 2004 to 2.7 million hectares in 2009, resulting primarily from the government's expansion plan, while production also surged significantly from 4.2 million tonnes in 2004 to 7.6 million tonnes in 2009. Substantial growth in paddy rice production has also produced a considerable paddy rice surplus. The subsector is estimated to employ around 2 940 000 people, which shows its significant potential to contribute to poverty alleviation in rural Cambodia (UNDP 2007: 5). There is also evidence of fast and stable growth in the production of **other main crops** such as cassava, maize and soybeans, and a slight increase in mung beans, between 2002 and 2009. This growth can be attributed to rising prices through increasing demand for these crops in neighbouring Thailand and Viet Nam, who are their traditional buyers. Cambodia also produces a wide range of specialized crops, including sweet potato, peanuts, sesame, sugar cane, tobacco, jute and vegetables.

A steep acceleration in **rubber** prices on international markets during the past decade has generated considerable interest from both domestic and foreign investors in the sector in Cambodia, making it the country's main

industrial and strategic crop. There has also been considerable engagement by Vietnamese investors in recent years, but the exact magnitude of involvement is difficult to estimate. The latest data from MAFF show that the total area under rubber plantation (matured and immature) – including rubber estates, new investment in the form of ELCs and smallholders – was 130 921 hectares in 2009, up from 82 000 hectares in 2007.

Livestock has contributed around one-sixth of total agricultural production during the past decade, and the sector is estimated to have employed 400 000 workers in 2006 (UNDP 2007: 5). In terms of number of heads, poultry takes the largest share, despite a marked decline in 2004; the subsector later accelerated due to subsidies to counter slumps caused by avian flu and increased awareness among farm owners of prevention measures. Production of cows and buffalo also expanded during the period, with average annual growth rates of 2.9 percent and 2.5 percent, respectively. By contrast, there was a marked decline in pig production between 2006 and 2009, owing to rising fear of pandemic swine flu (AH1N1), substantial illegal imports of pigs from neighbouring countries, and high domestic production costs (MAFF 2010: 19).

Inland freshwater fish contribute the most to total fish production in Cambodia, due to the country's immense freshwater lake and its long stretch of the Mekong River. Total catch did not change significantly between 2002 and 2009. However, concern has been mounting as to the potential negative effects of the rising number of upstream hydropower projects, such as those in China and Lao People's Democratic Republic, on downstream catches, such as in Cambodia. On the marine and aquaculture sides, growth in production has been slow but stable. More investment in fisheries could help offset possible declines in fish catches in the future. This is especially critical as the sector's contribution to low-skilled income earners is substantial: it provides approximately 260 000 jobs (UNDP 2007: 5).

In the **forestry** subsector, there was large-scale illegal logging and a significant reduction in the country's forest cover in the 1990s, though it

should be noted that there is no reliable source of data on forest cover in Cambodia. Given rampant illegal forest harvesting, the government imposed a moratorium on all logging activities and timber exports in the early 2000s, and cancelled about half of the total number of forest concessions. This resulted in a decline in forest production and exports but contributed to environmental conservation and wilderness protection. According to the MAFF, total forest cover in 2006, including evergreen, semi-evergreen, deciduous, wood shrub in dry land and several other types, was 10 864 186 hectares, that is, approximately 60 percent of the country (MAFF 2007: 94). Forestation efforts by the Forestry Administration and private tree planting companies have not made a significant contribution to the country's forest cover: the area under tree plantation in 2009 was 18 924 hectares, up from 11 250 hectares in 2005.

2.3 Foreign exchange earnings

Besides employment generation and production for domestic consumption, agriculture also generates a marked proportion of national exports. Wood, articles from wood and natural rubber played a leading role in the sector in generating foreign exchange earnings between 2002 and 2008, followed by edible fruits, vegetables and roots, cereals, fish and live animals. However, the average share of these products in total exports was only 4.48 percent, as Cambodia's national exports are concentrated largely in textiles and clothing. This latter sector has grown dramatically in recent years, except for in 2008 and 2009, when it was hit by the two crises, namely, the fuel price crisis and the global economic crisis.

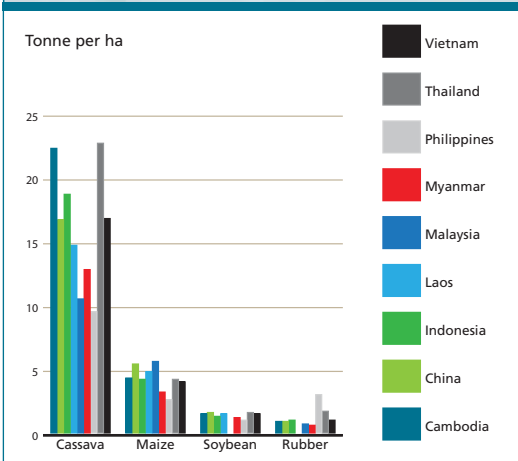
2.4 Regional comparison: opportunities and challenges

Cambodia's paddy rice yield remains low compared with other countries in the region in the past decade. However, despite a low yield of 2.9 tonnes per hectare in 2009, there are signs of improvements between 2005 and 2009, which can be explained by better application of

fertilizer and pesticide, and additional investment in irrigation (World Bank 2009: 8). Better application of inputs, use of better quality seeds, less reliance on traditional tools and equipment and reduced dependency on weather conditions through investment in irrigation (whether public, private or by farmers themselves), can help the country catch up with others in the region. As 80 percent of farmers grow rice, and as rural areas have high poverty incidence, government and private sector assistance in the form of Build-Operate-Transfer, such as irrigation facilities, and support from development partners and NGOs in terms of both hard and soft infrastructure are key to regional catch-up, and to help farmers move out of poverty. In August 2010, the government unveiled a policy to promote paddy rice production and milled rice export.

There is potential for growth in other crops too. Figure 1 shows that Cambodia was a champion in terms of its cassava yield in 2009 and was comparable with other countries in terms of its maize and soybean yields. Cambodia's cassava yield in 2009 was 22.3 tonnes per hectare, higher than the regional average (excluding China), of 15.1 tonnes per hectare. Maize and soybean yields were 4.3 tonnes per

FIGURE 1
Yield of key agricultural products, 2009
(tonne per hectare)



Source: FAO, 2010.