

WP 2005-25
October 2005



Working Paper

Department of Applied Economics and Management
Cornell University, Ithaca, New York 14853-7801 USA

A STRATEGY FOR AGRICULTURAL DEVELOPMENT IN ANGOLA

Steven Kyle

ABSTRACT

This paper presents an analysis of the Angolan agricultural sector together with a review of the principal constraints to development. A set of recommendations are presented as to possible policies and investments that would help to promote growth. Emphasis is placed both on the aftereffects of the decades long civil war that ended in 2002 as well as the distortions that result from Angola's status as an oil exporter.

Figure 1: Republic of Angola



Table of Contents

Acronyms	vii
Executive Summary	x
Introduction.....	x
Why a Market Oriented Strategy for Large and Small Farms?	xi
How to Promote Smallholder Development in Angola	xii
Institutional and Policy Reform	xiv
I. Introduction	1
The Strategy to Combat Poverty and the Agricultural Sector	1
II. Demography and Natural Resource Base.....	3
III. Current Economic Situation.....	4
A. Growth, Inflation and Exchange Rate.....	4
B. Agricultural Production.....	9
C. Infrastructure	11
IV. The Policy and Institutional Context for Agriculture	16
A. Real Exchange Rate	16
Competitiveness of Imported Maize in Angolan Provinces	18
B. Fuel Subsidies	21
C. Current Government Sector Policy on Agriculture and Rural Development.....	21
1. The Role of the Government in Rural Development in a Liberalized Economy.....	23
2. Parastatals and Direct Government Involvement in Production.....	24
3. Government Policy in Marketing and Distribution	25
4. Land Policy and Farm Size	27
Farm Size and Government Choices.....	28
5. Rural Credit.....	31
D. HIV/AIDS	32
V. A National Vision for Agriculture	33
A. Agricultural Development, Food Security and Poverty Reduction	33
B. Promotion of Increased Production and Marketed Surplus - An Integrated Approach	35
Fertilizer Policy.....	41
C. Marketing, Rural Development and Food Security	42
D. Agriculture and Regional Development	43
E. Spending on Agriculture.....	46
F. Decentralization and Agriculture.....	47
1. MINADER's Central Functions	48
2. Policy Analysis Unit	49
3. Statistical Unit.....	50
4. Reforming MINADER's Existing Directorates and Institutes	51

5. The Example of Mozambique and Proagri	53
G. Reform of the Instituto de Desenvolvimento Agrario and Research Institutes	54
1. Extension.....	54
2. Agricultural Research	55
3. Unifying Management of Extension and Research	57
H. Education	57
VI. Action Plan	58
A. Policy Reform	58
B. Road Building	59
C. Marketing	59
D. Smallholder Development.....	61
E. Input Supply and Support Services	62
F. Decentralization and Institutional Reform.....	62
G. Irrigation and Water Control.....	63
H. Land Tenure and Titling	64
I. HIV/AIDS.....	64
CONTACTS	65
BIBLIOGRAPHY	67
ENDNOTES	72

LIST OF TABLES

1. ANGOLA: Gross Domestic Product, 1997-2002 (annual rate of change)	6
2. ANGOLA: Balance of Payments, 1998-2002	9
3. Angola Food Balance Sheet.....	14
4. Comparative Yields for Key Crops, 2003.....	15
5. Cost of Grain Transport from Ports to Interior Cities – 2003/2004.....	20

LIST OF FIGURES

1. Republic of Angola.....	ii
2. Angola – Nominal Exchange Rate vs. US Dollar.....	8
3. Oil and Non-Oil Exports.....	10
4. Composition of Exports – Average 2001-2002	11
5. Area Planted by Commodity and Province 2002-2003	12
6. Tonnage by Commodity and Province, 2002-2003	13
7. Maize Production in Huambo	15
8. Angola – Real Exchange Rate Index vs. US Dollar	17

9. “Off-Truck” Maize Prices, April 2004	20
10. Map of Central Planalto	45

LIST OF ANNEXES

1. Projects of MINADER Financed by the Program of Public Investment
2. Organigram of the Ministry of Agriculture and Rural Development
3. Macro Structure of MINADER
4. Summary of Investment Incentives (Law No. 17/03)
5. Customs Tariffs and Consumer Taxes Applicable to Imported Agricultural and Related Goods
6. Externally Financed Agricultural Sector Investment Programs
7. Production and Yields by Crop, 2002-2003
8. Estimated Historical Production of Major Crops 1961-2003
9. Matrix of Draft Agricultural Strategy Actions

ACRONYMS

ACOMIL	Associação Comercial e Industrial de Luanda /Luanda Commercial and Industrial Association
ADRA	Associação para o Desenvolvimento Rural e Agricultura (National NGO)
AfDB	African Development Bank
AIA	Associação Industrial de Angola / Angola Industrial Association
AIA-NET	AIA Members Internet Service
AKZ	Kwanza (Angolan Currency)
APM	Angola Peace Monitor
ARDOR	Agricultural Recovery and Development Options Review
BNA	Banco Nacional de Angola/National Bank of Angola
CLUSA	Co-operative League of the United States of America (International NGO)
CWS	Catholic World Service
DNA	Direcção Nacional de Agua (MINEA)
DNA	Direcção Nacional das Alfandegas (MINFIN)
DNAI	Direcção Nacional de Agro-Industria (MIND)
DNCE	Direcção Nacional de Comércio Externo/ National Directorate For External Trade (MINCO)
DNCI	Direcção Nacional de Comércio Interno/ National Directorate For Internal Trade (MINCO)
DNDR	Direcção Nacional de Desenvolvimento Rural (MINADER)
DNER	Direcção Nacional de Extensao Rural (Mozambique)
DNHER	Direcção Nacional de Hidráulica Agrícola e Engenharia Rural (MINADER)
DNOR	Direcção Nacional de Ordenamento Rural (now DNDR)
DPADRPA	Direcção Provincial de Agricultura, Desenvolvimento Rural, Pesca e Ambiente
DPOR	Direcção Provincial de Ordenamento Rural
DRC	Domestic Resource Cost
DW	Development Workshop (International NGO)
ECHO	European Commission Humanitarian Office
ECP	Estratégia de Combate a Pobreza/ Strategy for Combatting Strategy (equivalent in Angola to the PRSP)
EDA	Estação de Desenvolvimento Agrário / Local Office for Agricultural Development (IDA)
EIU	Economist Intelligence Unit
EMRP	Emergency Multi-Sector Rehabilitation Programme (World Bank)
ENCO	Escola Nacional do Comercio/ National Trade School (MINCO)
EPUNGU	Gremio dos Comerciantes e Produtores de Milho de Angola
EU	European Union
FAO	Food and Agriculture Organisation of the United Nations
FAOSTAT	FAO Electronic Statistics Service
FAS	Fundo de Apoio Social/Social Aid Fund
FCA	Faculdade das Ciencias Agrarias/Faculty for Agrarian Sciences (UAN), Huambo
FENAPRO	Feira de Producao Nacional/National Produce Fair
FEWS	Famine Early Warning System
FIDA	Fundo Internacional de Desenvolvimento Agraria, Government of Portugal
FFW	Food-for-Work
GAA	German Agro Action (International NGO)
GAMCO	Government and Agricultural Marketing Consultants
GDA	Gabinete de Desenvolvimento Agrário / Agrarian Development Cabinet (MINADER)
GEPA	Global Executive Programme for Agriculture (MINADER)
GEPE	Gabinete de Estudos, Planeamento e Estatística/ Cabinet for Studies, Planning and Statistics
GOA	Government of Angola
GSA	Gabinete de Segurança Alimentar/Food Security Cabinet (MINADER)

IANORQ	Instituto Angolano de Normalizacao e Qualidade/Angolan Institute for Standardisation and Quality
ICO	International Coffee Organisation
IDA	Instituto de Desenvolvimento Agrário/Agrarian Development Institute (MINADER)
IDF	Instituto de Desenvolvement das Florestas/Forestry Development Institute (MINADER)
IDIA	Instituto de Desenvolvimento da Industria Angolana/Institute for the Development of Angolan Industry (MIND)
IDP	Internally Displaced Person
IFAD	International Fund for Agricultural Development
IGCA	Instituto Geográfico e Cadastral de Angola/Angolan Cadastral Institute
IIA	Instituto de Investigação Agrária/Institute of Agricultural Research
ILO	International Labour Organization
IMAH	Instituto Media Agraria de Huambo/Middle-Level Agrarian Training Institute of Huambo
IMAM	Instituto Media Agraria de Malange/Middle-Level Agrarian Training Institute of Malange
IMAT	Instituto Media Agraria de Tchivinguiro/Middle-Level Agrarian Training Institute of Tchivingo (Lubango)
IMF	International Monetary Fund
INAPEM	Instituto Nacional de Apoio às Pequenas e Médias Empresas/Small and Large Enterprises Support Institute
INCA	Instituto Nacional de Café/National Coffee Institute (MINADER)
INCER	Instituto Nacional de Cereais/National Cereals Institute (MINADER)
INE	Instituto Nacional de Estatistica/National Statistics Institute
INEA	Instituto Nacional de Estradas de Angola/National Roads Institute of Angola
INEFOP	Instituto Nacional do Emprego e Formacao Profissional/National Employment and Professional Training Institute
INOTU	Instituto Nacional de Ordenamento Territorial e Urbanismo/National Urban Planning Institute
IPM	Gestao Integrada de Pragas/Integrated Pest Management
ISCE	Instituto Superior de Ciencias de Educacao/Higher-Level Institute for Educational Sciences
Kg	Kilogram
Km	Kilometre
LAC	Luanda Antenna Comercial/Luanda Commercial Radio
LCQ	Laboratorio de Controlo de Qualidade/Laboratory for Quality Control (MINCO)
MADER	Ministério da Agricultura e Desenvolvimento Rural/Ministry of Agriculture and Rural Development (Government of Mozambique)
MAPESS	Ministério da Administração Publica e Segurança Social/Ministry of Public Administration and Social Security
MERP	Malanje Economic Reactivation Programme
MIC	Ministério da Industria e Comercio/Ministry of Industry and Commerce (Mozambique)
MICS	Multiple Indicator Cluster Survey
MINADER	Ministério da Agricultura e Desenvolvimento Rural/Ministry of Agriculture and Rural Development
MINADERF	Provincial Directorate of Agriculture, Rural Development and Fisheries
MINARS	Ministério da Assistência e Reinserção Social/Ministry of Social Welfare and Reinsertion
MINCO	Ministério de Comercio/Ministry of Commerce
MIND	Ministério da Indústria/Ministry of Industry
MINEA	Ministério de Energia e Agua/Ministry of Energy and Water
MINEDU	Ministério de Educacao/Ministry of Education
MINFIN	Ministério das Finanças/Ministry of Finance
MINPLAN	Ministério do Planeamento/Ministry of Planning

MINSAUDE	Ministério de Saude/Ministry of Health
MINUA	Ministério de Urbanismo e Ambiente/Ministry of Urban and Environment Affairs
MIS	Marketing Information Service
MOP	Ministério das Obras Publicas/Ministry of Public Works and Urban Planning
MT	Metric Tonne
n.a.	not available
NAWASMA	National Water Sector Management Project
NEPAD	New Partnership for Africa's Development
NGO	Non-Governmental Organisation
OCHA	United Nations Office for the Coordination of Humanitarian Affairs
ODI	Overseas Development Institute
OGE	Orçamento Geral do Estado/General State Budget
OIKOS	OIKOS Cooperação e Desenvolvimento/OIKOS Co-operation and Development (International NGO)
PAM	Programme Alimentaire Mondial/World Food Programme
PCRPP	Rehabilitation and Reconstruction Programme
PEPARR	Plano de Acção Provincial de Emergencia para Reinstalação de Deslocados/Provincial Emergency Plan for Action for Resettlement and Return
PFCANT	Non-Traditional Agricultural Products Trade Promotion Programme (Mexico)
PG	Programa do Governo/Government Programme
PIM	Participatory Irrigation Management
PIP	Programa de Investimentos Públicos/Public Investment Programme (MINPLAN)
PNFCA	Programa Nacional de Formacao e Superacao Tecnico-Profissional de Comerciantes em Angola/National Programme for the Training and Professional Improvement of Traders in Angola (MINCO)
PRODECA	Project for the Development of Food Crops in the Northern Region (IFAD)
PRINF	Programa de Reabilitação de Infraestruturas/Infrastructure Rehabilitation Programme (MOP)
PRORCICOM	Programa especifico de Promocao, Mobilizacao, Incentivo e de Apoio aos Cidadãos e Comerciantes (MINCO)
PRSP	Poverty Reduction Strategy Paper
Q	Quantity (Cubic Metres per Hour)
SADC	Southern African Development Community
SAGAR	Secretariat of Agriculture, Livestock and Rural Development (Mexico)
SENSE	Serviço Nacional de Sementes/National Seeds Service
SIMA	Sistema da Informacao dos Mercados Agrícolas/Agricultural Marketing Information System (Government of Mozambique)
TSS	Transitional Support Strategy (World Bank)
UAN	Universidade de Agostinho Neto/ Agostinho Neto University (Luanda)
UN	United Nations
UNACA	Uniao Nacional dos Agricultores et Camponeses Angolanos
UNCT	United Nations Country Team
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
UNICEF	United Nations International Children's Fund
UNIDO	United Nations Industry Development Organisation
UNITA	União Nacional para a Independência Total de Angola/National Union for the Total Independence of Angola
USAID	United States Agency for International Development
USD	United States Dollar
UTCAH	Unidade Técnica de Coordenação das Ajudas Humanitárias/Technical Unit for the Coordination of Humanitarian Assistance
VA	Vulnerability Analysis
VAM	Vulnerability Analysis and Mapping
WB	World Bank
WFP	World Food Programme (PAM in Portuguese)

EXECUTIVE SUMMARY

A STRATEGY FOR AGRICULTURAL DEVELOPMENT IN ANGOLA

September 2004

Introduction

This paper presents the rationale for a market oriented strategy for agricultural development in Angola. It is intended to form a basis for discussion between the Government and donors with an interest in assisting in this area.

This strategy is coming at a key moment in Angola's history. With the end of the decades-long civil war now two years in the past, the country is poised to move beyond the emergency and resettlement phases of assistance to a phase of rehabilitation and development. Rehabilitation efforts will take many years, focusing not only on physical infrastructure (especially roads) but also on the institutional and private sector needs for a well functioning liberalized economy.

Typically, rehabilitation (rebuilding that which already existed previously) can proceed much faster than development (building new capacity) and this is true to some extent in Angola as it is elsewhere. However, in the Angolan case, much of what might be labeled "rehabilitation" is in fact much more developmental in nature due to the long disruption of rural areas and the near total departure of many Portuguese settlers who formed the core of the pre-independence rural economic and marketing systems.

A review of Angola's history and natural resource base make it abundantly obvious that there is every reason to hope for success in promoting agricultural development in this country. A large smallholder sector, accustomed to producing for the market, and with a demonstrated responsiveness to market incentives, can with the required support become a true engine of growth for the country. In addition, there are already in existence a variety of larger commercially oriented farms geared toward market production.

It is important to bear in mind the problems associated with Angola's large and growing oil receipts. The distortions typical of resource-curse economies afflict Angola, with a real exchange rate appreciation that, if continued, will endanger the competitiveness of Angolan producers as suppliers to major domestic demand centers. The experience of Nigeria is one which can be regarded as a cautionary example for macroeconomic management in Angola.

In addition, it is also clear that Angola is far from the NEPAD recommendation of spending 10% of its budget on agriculture. Currently, the sector is budgeted for only about a tenth of this amount, while budget execution resulted in an even lower proportion. Increasing the priority given to agriculture will be an important topic for

dialogue in the future.

A cautionary note is in order. While “agricultural development” and “poverty alleviation & food security” have a large degree of overlap, they are not the same thing. That is to say, an emergency poverty alleviation program such as those which have been the primary form of donor assistance in Angola for many years, is aimed at the poorest of the poor in an effort to reduce their vulnerability to adverse circumstances. An agricultural development program should be aimed at those areas which are capable of generating the highest returns to investment. Though poverty alleviation will certainly be one important outcome of this, it is not the overriding objective as it is in emergency and humanitarian aid efforts.

The following sections detail the reasons for choosing a market oriented strategy and the basic components such a strategy would include. This is followed by a summary of the institutional needs in terms of reform and strengthening, and is followed by a summary of an action plan to implement this strategy.

Why A Market Oriented Strategy for Large and Small Farms?

Any realistic vision of the future for Angolan agriculture will include a mix of both large and small farms. This is appropriate and to be encouraged inasmuch as it is a reflection of the present situation as much as a forward looking vision. It must be stressed that much of the proposed strategy will benefit all producers since all need improved transport infrastructure, a modern marketing system and a conducive regulatory environment. Indeed, large farms may well provide growth poles for smaller producers in some areas and are often well positioned to respond rapidly to market opportunities.

Nevertheless, there is good reason for a government strategy to emphasize assistance to smallholders. The overarching reason is that these households, constituting a majority of the Angolan population, are less able to make needed investments than are larger farmers. Beyond this there are compelling reasons at both the micro and macro levels for such an emphasis.

At the micro level the need for an emphasis on aid to smallholders can be summarized as follows:

- Economic Efficiency – There are decades of studies around the world demonstrating the economic advantages of a smallholder oriented strategy. Apart from that, the Angolan evidence demonstrates that there are large gains to be had from relatively small investments in on-farm improvements, recapitalization and reactivation of marketing.

- Poverty Alleviation – The majority of Angola’s poor are located in rural areas and most of them rely on farming for the majority of their income. Only through a broad based rise in incomes and welfare in rural areas can the goals of the Strategy to Combat Poverty be achieved.

- Social Cohesion – After the long civil war and the massive dislocations that accompanied it, millions of rural Angolans are newly settled or resettled in rural areas. In order for these populations to maximize physical security as well as welfare and the ability to achieve minimum subsistence levels of income it will be important to support the development of viable rural communities together with the income generating activities they rely on. This is particularly important for demobilized soldiers.

- Political Reconciliation – Many of the most important agricultural areas are populated primarily by former supporters of UNITA, which lost the civil war to the governing MPLA party. It is in the long term interest of the country to demonstrate the importance of these peoples' welfare by assisting their return to pre-conflict levels of production and welfare and to integrate them into the national economy as much as possible

At the macro level, such an effort is equally important, indeed imperative for the following reasons:

- In the near term, donor withdrawal from the large food aid programs of the present and recent past will leave the country with a massive deficit in food production. Approximately half of Angola's grain needs are currently met through imports, much of these free or concessional, and filling this gap may well constitute a problem of emergency proportions. Historically, smallholders have been the source of Angola's marketed grain surpluses and it is to them we must look for increases in production in the future.

- In the long run, the overall development of the country depends upon successful development of the agricultural sector. To fail at this task will retard the overall growth of the country through increased import requirements, increased rural-urban migration, and widespread poverty.

- The adverse macroeconomic effects of the country's massive oil receipts put traded sectors such as agriculture at a huge disadvantage. Only through investments in higher productivity can the country hope to avoid wholesale stagnation in this sector given the likelihood of continued appreciation of the real exchange rate.

How to Promote Smallholder Development in Angola

The process of independence together with the long civil conflict that ended only two years ago has left much of rural Angola in a state of near total destruction, destitution and decapitalization. Rehabilitating the rural society and economy will require a broad effort focusing on virtually all parts of the farming system and its social supports. Doing what is necessary will not be possible throughout the entire country during this initial phase. Accordingly, it is proposed that the first efforts focus on demonstrating the possibilities of success in a few areas that are particularly important and well endowed in

terms of resources, market proximity, and tradition of market-oriented production. Broadly speaking, the needs can be categorized as follows:

- Perhaps the most striking lack in many areas is the near total destruction of rural marketing institutions and infrastructure. Without an outlet for their produce, smallholder development at the farm level will be for naught. Among the most pressing needs for promotion of marketing are:
 - Road, bridge and rail rehabilitation and demining. Many villages even now live in near total isolation. Improving market access and rehabilitating roads to the point where vehicles can easily pass will go far toward promoting market activity
 - Producer associations have proven effective in the Angolan context in supporting marketing by smallholders as well as providing a way to mediate support efforts in terms of credit, extension, and input purchase.
 - The efficacy of higher level marketing institutions such as the apex association, Epungu, are unclear. Given the potential for these to be used as instruments of price or distribution control, direct support may not be appropriate.
- Farm level support should focus on help in commercializing (on both the input and output sides) and recapitalizing production, in addition to technical improvements in terms of seeds and implements. Principal needs include:
 - Support of improved and decentralized agricultural extension. The government has recently announced a general plan to decentralize government functions; this deserves financial support at the decentralized level as well as assistance in defining the relationship between extension, farmers and the central government.
 - Support for farm-centered research into improved seeds and the development of public and private sector institutions needed to develop these and perform multiplication and distribution to smallholders.
 - Support recapitalization of smallholders and the expansion of micro-credit operations supporting small farmers as well as small rural enterprises (implement production, food processing, small trading, etc.) which have proven effective in the Angolan context. Particularly important is support for recapitalization; among the most important needs are draft animals, implements, crop storage and water control.
- Support the development of research and education in agriculture and the linkages of these with rural extension
 - The principal agricultural research institutions, IIA and IVA, were virtually completely destroyed by the war. Reconstituting these as institutions directly responsible to their client population of small farmers is a key element in

promoting improved farm technologies.

- The Faculdade de Ciencias Agrarias is newly reopened in Huambo at the site of the IIA research station. This connection is to be encouraged and supported. The FCA itself is a key link in that it provides both researchers for the research institutes as well as staff for the extension system and government. Many of the current staff are nearing retirement and/or may have little training in assisting a market oriented liberalized agricultural sector.
- Equally important are the facilities for training of tecnicos basicos and medios, all of which were damaged in the conflict

Institutional and Policy Reform

Much of the institutional apparatus of the Angolan government is unchanged from its command-economy structure of the past. In addition, lack of funding and low salaries have contributed to low morale and balkanization of units within the Ministry as they have little capacity to link with client populations or other units within the government. In addition, there are some areas where remaining controls on the economy work to the detriment of progress in rural development.

While support for reforms of the central Ministerial functions would be beneficial, the primary thrust of this strategy is to assist the government in its desire to decentralize services by supporting rehabilitation and capacity building at the provincial and lower levels. In particular, extension services are located at the municipio level and it is here that assistance can have the greatest impact on target populations. Rural activities, particularly agriculture, are probably the best single example of a governmental function that would be most efficiently performed under a decentralized system.

Principal recommendations for policy reform include:

- Abolish remaining controls on marketing, particularly margin controls on the profits of traders which are implemented by the Ministry of Commerce and enforced by the Economic Police
- Publicly announce the government's intention to refrain from any involvement in fertilizer sale or distribution and eliminate all barriers to import of this and other agricultural imports. As an interim measure to deal with the market's inability to overcome risks associated with input markets, auction donated or other fertilizer imports in provincial capitals. In the longer term, consider guarantees to support financing of private sector imports and consider the feasibility of domestic production.
- Reform the structure of MINADER to put extension and research under unified

management with the explicit mission of improving conditions of smallholder agriculture. This could be accomplished through a joint research/extension committee with oversight responsibility staffed with representatives from the research institutes, the extension system, the university faculty of agriculture, and farmer associations.

- Create a high level policy analysis unit in MINADER capable of analyzing policy alternatives and appraising projects according to commonly accepted standards. This would require the following:

- Training and education for existing staff
- Recruitment of new staff recently trained in economics
- A study tour for senior staff to Mozambique to see what has been done there would be very useful

- Improve and make independent a statistical unit within MINADER, and perform a basic national agricultural survey to establish baseline data regarding areas planted and amounts harvested.

- Support the ongoing reform of the IDA, the extension system, to explicitly define it as a primarily decentralized institution based on farm-centered assistance, and the necessary resources should be made available to do this. Central functions such as data collection and technical backstopping should be clearly defined.

- Reform the institutions responsible for land tenure, cadastre and registration to ensure greater transparency and protection for the rights of smallholders. In addition, assistance in finalizing the legal framework surrounding land titling is important. Operationally, it would be best to regard current donor efforts in this area as pilot projects, to be evaluated for potential duplication and support in additional areas of the country.

- Support reform the DNHER by assisting in the definition of a national irrigation policy, and moving the primary thrust of government efforts from promoting and managing irrigation systems to reorient it toward research in appropriate technologies for the smallholder sector. Water control in this context is not best done as an independent project; rather, it should be part of the overall effort to raise production so that costs and benefits can be compared with all other potential interventions and investments. Existing large irrigation schemes constitute a sunk cost and as such, the best course for the government is to evaluate them with an eye toward the best way to constitute them as self-sustaining cooperative or private sector ventures.

- Perform an overall manpower study of MINADER in order to identify redundant or unproductive positions and formulate a plan for elimination of these so that those remaining can be better supported.

A STRATEGY FOR AGRICULTURAL DEVELOPMENT IN ANGOLA*

September 2004

Steven Kyle

I. Introduction

This report was written to form the basis for a discussion with the Government of Angola regarding its policies toward rural areas and the agricultural sector. The report summarizes the current situation in agriculture and discusses the various constraints and policy options facing the government as it seeks to rehabilitate and develop production. It should be noted that what is presented here is not all that might be included under the headings, “rural development” and “food security”, since these encompass social sectors, infrastructure, commercial as well as productive sectors. This report will focus primarily on how to reactivate the rural economy and with it the ability of rural people to assure themselves and the country of food security in a sustainable way. Given the natural resources and population of Angola, this clearly implies a heavy emphasis on agriculture, since it is both the primary means of support for most and also of key importance in reactivating the non-mineral economy in general.

The Strategy to Combat Poverty and the Agricultural Sector

There can be no doubt in Angola that the need for assistance to the poorest segments of society is as great as anywhere else on the continent. After the ravages of a decades long civil war, the country still has yet to extend even the most basic services to large parts of the countryside. This, together with the need to return rural populations (many recently resettled) to a self-sustaining level of production and income, make it imperative to emphasize agricultural development as an integral part of the overall strategy to reduce poverty in the country.

Indeed, the government has explicitly done just this. The Estrategia de Combate a Pobreza, currently in the final stages of preparation, puts rural development and food security high up on its list of priorities. Given the fact that the majority of the population

Demographic and Welfare Indicators in Angola	2001	2002
Population, total	12.7 million	13.1 million
Population growth (annual %)	2.9	2.9
Life expectancy (years)	..	46.7
Fertility rate (births per woman)	..	7.0
Infant mortality rate (per 1,000 live births)	..	154.0
Under 5 mortality rate (per 1,000 children)	..	260.0
Births attended by skilled health staff (% of total)	44.7	..
Child malnutrition, weight for age (% of under 5)	30.5	..
Child immunization, measles (% of under 12 mos)	72.0	74.0
Prevalence of HIV (female, % ages 15-24)	5.7	..

depends on agriculture directly, and that many of the poorest are included in this group, this is something to be supported by donors. One

* The work on this study was funded by the World Bank. This is, however, not an official World Bank document.

important aspect of the ECP, and one which is entirely shared by the strategy laid out in this report, is the idea that agricultural development and food security require a vision and a set of interventions that are much broader than agricultural production alone.

The process of implementing the ECP involves a distinct change in the government's overall focus in terms of assistance to poor populations as the initial phase of humanitarian aid and resettlement/rehabilitation gives way to a more purely developmental type of intervention. This shift is also reflected among the many foreign donors active in Angola. Within the agricultural sector this shift is typified by moves away from provision of such transitional aid as packages of seeds and tools for newly resettled families and toward longer term aid designed to reactivate a viable commercial agriculture sector.

The World Bank's EMRP project is a first step in this general direction, focusing on road building and seed production, but it is only a first step; a true agricultural development strategy, such as that proposed here must take a far broader view. Other donors have already begun the effort, with the EU initiating a shift toward a more developmental approach with the anticipated end of its Transitional Support Program at the end of 1995. The various UN agencies have been extremely important in all of the humanitarian efforts for many years, but here too there is the beginnings of a shift as shown by the FAO's recent Agricultural Sector Review.¹

Reactivation of the rural economy will take a sustained effort across a broad front. A key contention of the strategy laid out in this report is that assistance at the farm level, while absolutely necessary, is not in itself sufficient. Rather, given the complete lack of a marketing system in most areas together with the reliance on imported supplies by major coastal demand centers, a major effort to develop (or redevelop in many cases) links between farms and markets will be fundamental to a successful strategy.

The strategy envisions a future agricultural sector with a mix of farm types and sizes but proposes an emphasis on assistance to smallholders. There is no lack of evidence around the world that promoting a dualistic large farm sector in Angola would not only be inefficient, but would create the foundation for social and political problems in the future that are currently being suffered elsewhere in Africa and the world. That such a smallholder strategy can succeed is evidenced by the strong response of Angolan peasants to market incentives both now and in the past. However, it requires a broad effort to put in place the supporting institutional framework that will enable small farmers to advance.

Infrastructure investment, particularly in roads, is a need that it would be difficult to overemphasize. Anyone who has attempted to drive any distance in the countryside can attest to the extremely deteriorated state of roads, while many rural communities remain in almost total isolation. Road and bridge repair together with continued demining activities will be major features of any successful strategy. Also important are recapitalization at both the farm level and at the level of the marketing system. Though each requires a somewhat different approach, the near total destitution of many is a

lasting result of the long civil conflict.

The macroeconomic context is extremely important in Angola. After several years of adverse movements in the real exchange rate due to oil and diamond funded inflows of foreign exchange, relative prices are now arguably not far from the point at which imports could compete with domestic production even in the interior of the country. Accordingly, macroeconomic management, though not geared to the needs of rural areas, will be of fundamental importance to any successful strategy.

This paper draws on the recent FAO Agriculture Sector Survey of 2003-2004 as well as four working papers written subsequently under the auspices of the World Bank and FAO.² This strategy does not purport to provide a complete in depth analysis of all of the issues – insofar as data permits, this was done by the FAO study and subsequent Economic and Sector Work. Further analysis will depend on additional data collection in most cases where it is necessary. Nevertheless, this strategy provides a view of the sector's needs and the ways in which Bank assistance can contribute to success both in terms of investments and in terms of policy reforms. Pulling all of the diverse threads into a single coherent view of the way forward is something that could not be achieved by the dozens of sub-sectoral analyses performed by the FAO and subsequent studies.

II. Demography and Natural Resource Base

Between 60% and 70% of Angolans earn their living from agriculture, which accounts for less than 10% of GDP. With a relatively small population of approximately 14 million (growing at 2.9% p.a.) and population density of about 10 inhabitants per square kilometer, Angola is well endowed with agricultural resources and has the potential to grow a wide range of tropical and semi-tropical crops. Prior to independence in 1975 Angola was self sufficient in food and exported numerous crops, of which coffee was the most important. Exportable surpluses of grain were for the most part produced using traditional technologies and few modern inputs. So, not only is Angola a natural food and cash crop producer and exporter, but there is considerable potential for growth through modernization and technical change. During the colonial period, agriculture had a dual structure, with a commercial sector of about 800,000 ha. managed by Portuguese settlers using modern technologies, and a traditional sector composed primarily of subsistence smallholders cultivating about 3.4 million ha.

After independence most of the settlers left the country and many of the former commercial farms and plantations were converted into state farms, which have now been privatized. The civil war resulted in a virtual collapse of marketed production as large numbers of rural inhabitants either fled or reverted to subsistence production. Infrastructure suffered greatly with widespread destruction of roads, bridges and warehouses together with the presence of thousands of land mines in rural areas.

Agro-climactic conditions vary widely, from humid tropical lowlands in the north and northeast to desert on the southern coast bordering Namibia. The central highlands contain large areas with good rainfall (1500-2000 mm/year), relatively moderate temperatures, and are also the region with the highest population density. Soils, though adequate in some locales, are generally depleted of at least some macronutrients and require fertilization for sustained cultivation. The coastal and southern areas are far dryer, with average rainfall of less than 100 mm/year in southwestern desert areas and between 500 and 1000 mm/year in the four southern provinces of Namibe, Huila, Cunene and Cuando Cubango. Irrigation is essential to production in these zones, and fortunately there are abundant surface and subsurface sources, many of which have been developed to some degree.

While population is densest in the high potential areas of the central plateau (Bie, Huambo, Kuanza Norte, Malange, Uige and parts of Benguela and Kuanza Norte), there are large sparsely populated areas, especially in the east, which are capable of supporting much larger populations than at the present time.

Staple crops range from cassava in the humid north and northeast to maize in the central highlands and sorghum/millet in the dryer southern provinces. Potatoes are an important crop in the central plateau and rice is also grown over large areas in the north. Cattle are raised over broad areas in the central plateau but are particularly important in the southern provinces of Cunene, Huila, and Namibe where there are an estimated 3 million head of cattle.

The most important cash crop has historically been coffee, which grows well in the highlands from Uige and Malange through Cuanza Norte and as far south as Huambo and Bie. Exports are currently negligible due to the war, though Angola was once the world's third largest exporter. Cotton, sugar cane, sisal, bananas and wood are other important cash crops, though production is very low by historical standards at the present time.

III. Current Economic Situation

A. Growth, Inflation and Exchange Rate

Growth in GDP over the past 10 years (See Table 1) has been anemic at best, and negative in many years. Only when oil prices and/or production rise does growth rise as well, reflecting the extreme oil dependence of the Angolan economy. This situation was in fact almost inevitable over the many years of conflict, when production in rural areas was virtually impossible. Now that hostilities have ended, growth in non-oil sectors has slowly started to rebound but oil remains dominant. Recent oil price increases to more than \$40 per barrel will provide additional growth if they are sustained.³

GDP growth in 2003 was 4.3%, largely due to the performance of the oil sector.

This growth rate is forecast to increase to more than 12% this year and next and to go even higher in 2006 and beyond. These projections rely on oil production estimates and as such are contingent upon the state of the world oil market. While physical production

Table 1 ANGOLA: Gross Domestic Product, 1997-2002 (annual rate of change)

	1997	1998	1999	2000	2001	2002
	Annual Rate of Change					
Agriculture, Forestry and Fishing	10.2	5.2	1.3	9.3	18.0	12.1
Mining	6.5	8.1	4.7	2.0	1.8	22.0
Crude and Gas	4.7	3.5	1.0	0.4	(1.0)	25.0
Other	53.4	90.2	39.5	13.3	19.5	6.6
Manufacturing Industries	9.3	4.9	7.1	8.9	9.8	10.1
Electricity Industry	9.4	14.5	1.3	0.8	10.0	10.0
Construction	13.0	10.0	5.0	7.5	8.5	10.0
Trade Services	9.4	5.0	4.4	3.4	6.0	11.6
Non- Trade Services	5.5	0.0	(7.5)	1.5	1.0	2.5
Import customs duties	5.0	(30.0)	(10.0)	0.0	2.5	5.0
GDP at Market Prices	7.7	5.5	2.7	3.6	5.2	15.5
	Index (1992=100)					
Agriculture, Forestry and Fishing	89.2	93.9	95.1	104.0	122.6	137.5
Mining	127.6	137.9	144.4	147.2	149.9	182.9
Crude and Gas	129.4	133.9	135.3	135.8	134.4	168.0
Other	102.4	194.8	271.7	307.8	367.8	392.0
Manufacturing Industries	103.0	108.1	115.8	126.0	138.4	152.4
Electricity Industry	116.6	133.4	135.2	136.3	149.9	164.9
Construction	89.1	98.1	103.0	110.7	120.1	132.1
Trade Services	101.9	107.0	111.6	115.4	122.3	136.5
Non- Trade Services	71.3	71.3	66.0	67.0	67.6	69.3
Import customs duties	53.9	37.8	34.0	34.0	34.8	36.6
GDP at Market Prices	102.2	107.8	110.7	114.7	120.8	139.5

Source: Banco Nacional de Angola.

estimates can be made with some level of confidence, world oil prices are, of course, dependent upon a host of factors well beyond the control of Angola. Outside of oil, it is also reasonable to expect higher growth rates in agriculture and elsewhere as the process of rehabilitation and reactivations continues.⁴

From independence in 1975 until the past few years Angola went through a series of hyperinflationary episodes followed by stabilization/control policy packages and then renewed inflation. The root cause of these cycles was monetization of fiscal deficits. Spending fueled by oil receipts would be unsustainable after a period of growth, with declining oil receipts from either production declines or adverse price movements often triggering the need to print money, or to borrow against future oil receipts.

Relations with international organizations were uneven through these episodes, as the government proved unable to adhere to the terms required by the IMF for approval. However, over the past year the government has shown a renewed determination to achieve stability and to do whatever is necessary to normalize relations with the IMF, the World Bank, and other donors. Recent announcements regarding oil-related receipts are a break with the past and could, if continued and extended sector-wide, provide the basis for a sustained move to a more transparent mode of operation.⁵

Figure 2 shows the evolution of the exchange rate over the past five years. Of particular interest is the clear change in the trend as of August 2003 where the effects of government activity in the foreign exchange market can be seen in the stabilization and appreciation of the nominal exchange rate through the last five months of 2003 through the present. For virtually all of the 1990's, the official exchange rate was substantially overvalued, with the parallel market premium reaching levels well above 1000% at times. This is one area where the government has been very successful since the year 2000, with the parallel premium usually less than 1%. The Kwanza has stabilized at a level of around 80 to the US Dollar for the past year, but it should be noted that this is a period of substantial dollar depreciation vis a vis the Euro, so that the Kwanza has in reality been depreciating somewhat on a trade weighted basis. In spite of this, the Balance of Payments is unlikely to respond to any great degree since virtually all exports are composed of oil and imports are as yet quite price unresponsive, given the lack of domestic substitutes for many of the imports to coastal cities.⁶

Table 2 shows the evolution of the Balance of Payments in recent years. It can be seen that there has been a sizable deficit on the current account in every year except 2000, which was a peak in the oil market. While the trade balance is strongly positive in all years, the negative balance on the services account more than makes up for this difference. It is also evident that foreign loans account for a large share of the flows recorded in the balance of payments, including large interest payments in the current account. Figures 3 and 4 show the composition of exports in recent years, when the overwhelming dominance of oil is clear.

Figure 2

Angola - Nominal Exchange Rate vs. US Dollar

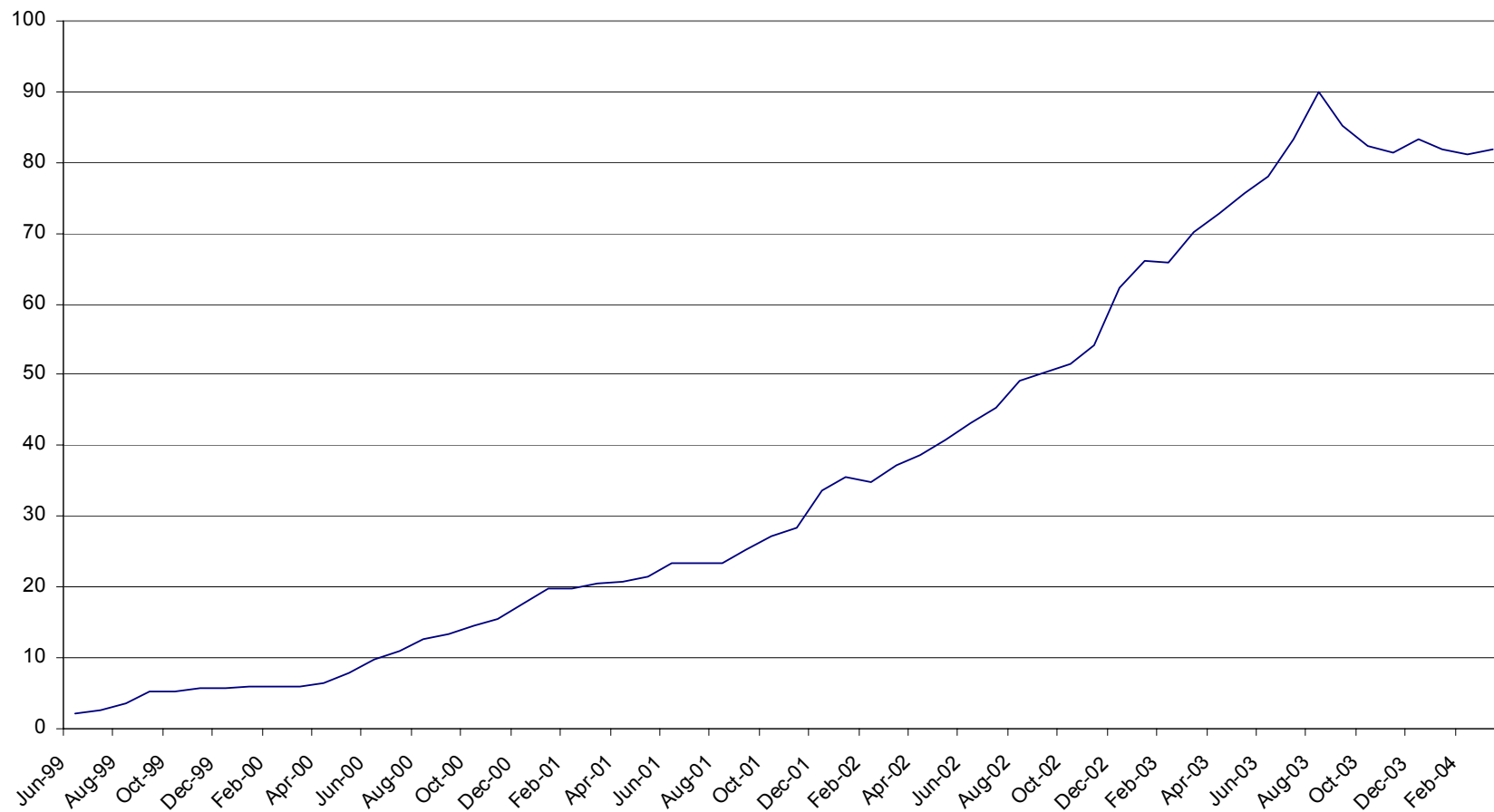


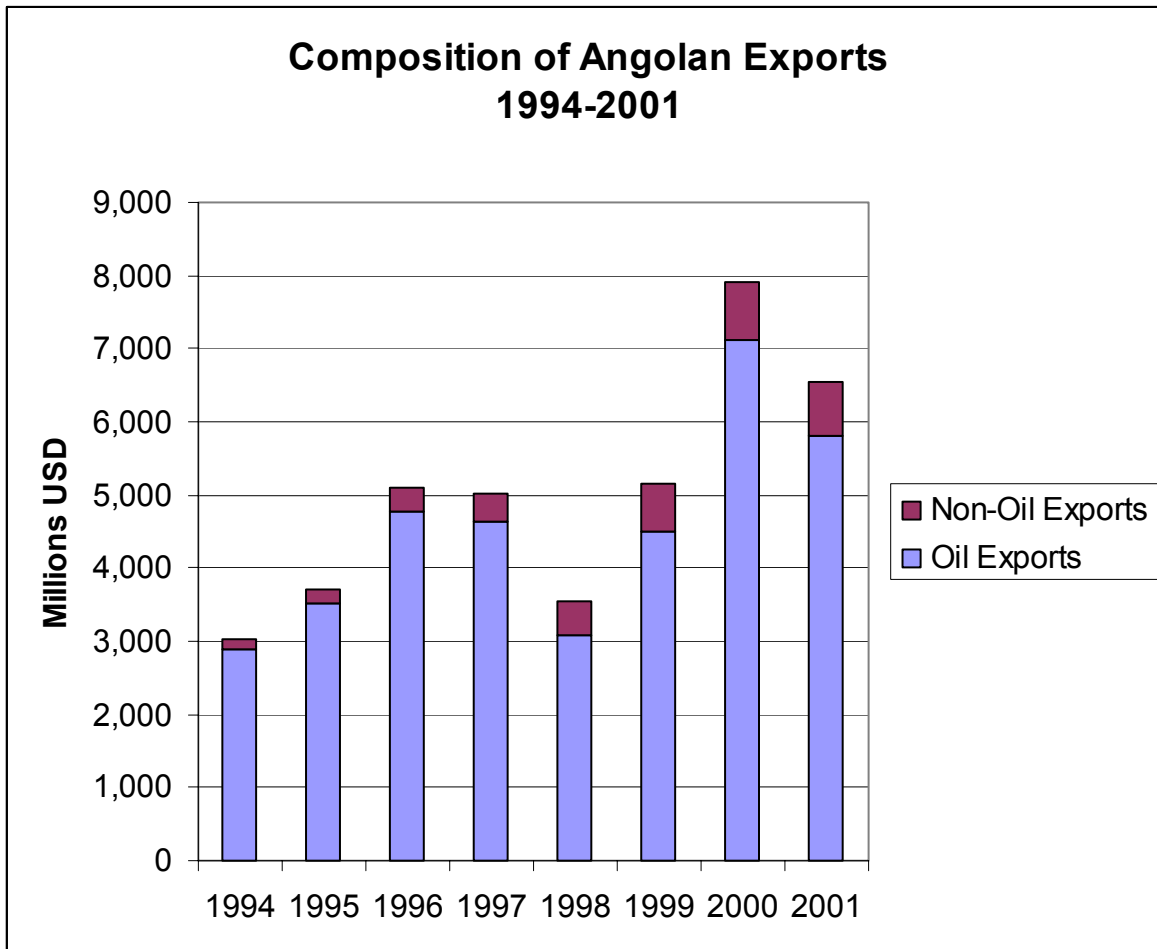
Table 2. ANGOLA: Balance of Payments, 1998-2002
(in millions of dollars; unless otherwise stated)

	1998	1999	2000	2001	2002 Prel.
Current account	-1,867	-1,710	796	-1,431	-644
Trade balance	1,464	2,047	4,881	3,355	4,649
Exports, f.o.b.	3,543	5,157	7,921	6,534	8,359
Oil sector	3,091	4,491	7,120	5,803	7,677
Diamonds	432	629	739	689	638
Other	20	37	62	43	44
Imports, f.o.b.	-2,079	-3,109	-3,040	-3,179	-3,709
Services (net)	-2,514	-2,442	-2,432	-3,316	-3,856
Receipts	122	153	267	203	230
Payments	-2,635	-2,595	-2,699	-3,518	-4,086
Income (net)	-969	-1,372	-1,681	-1,561	-1,527
Of which: Interest due 1/	-504	-569	-597	-539	-393
Current transfers (net)	152	56	28	91	89
Financial and capital account	304	1,664	-450	954	-13
Capital transfers (net)	8	7	18	4	23
Direct investments (net)	1,114	2,472	879	2,146	1,312
Of which: Oil bonuses	51	935	0	450	0
Medium- and long-term loans	-974	-291	-766	-618	-831
Disbursements	593	1,501	1,610	1,619	1,048
Amortizations	-1,567	-1,791	-2,376	-2,237	-1,879
Other Capital (net)	156	-524	-580	-577	-518
Net errors and omissions	377	-80	-51	-365	0
Overall balance	-1,186	-126	295	-842	-658
Net international reserves (- increase)	319	-530	-631	508	207
Exceptional financing	868	656	336	334	451
Debt rescheduling and debt forgiveness	68	0	202	40	16
Arrears, net (+ increase) 1/	800	656	134	294	435

B. Agricultural Production

Figures 5 and 6 show areas planted and tonnage produced by province for the most recent crop year for which data are available. The regional variation in production is immediately clear, with three distinct zones. The central highlands are primarily a maize based area, the north is based mostly on cassava, while the dryer southern provinces produce mainly sorghum and millet. Livestock production is also important in these southern provinces.

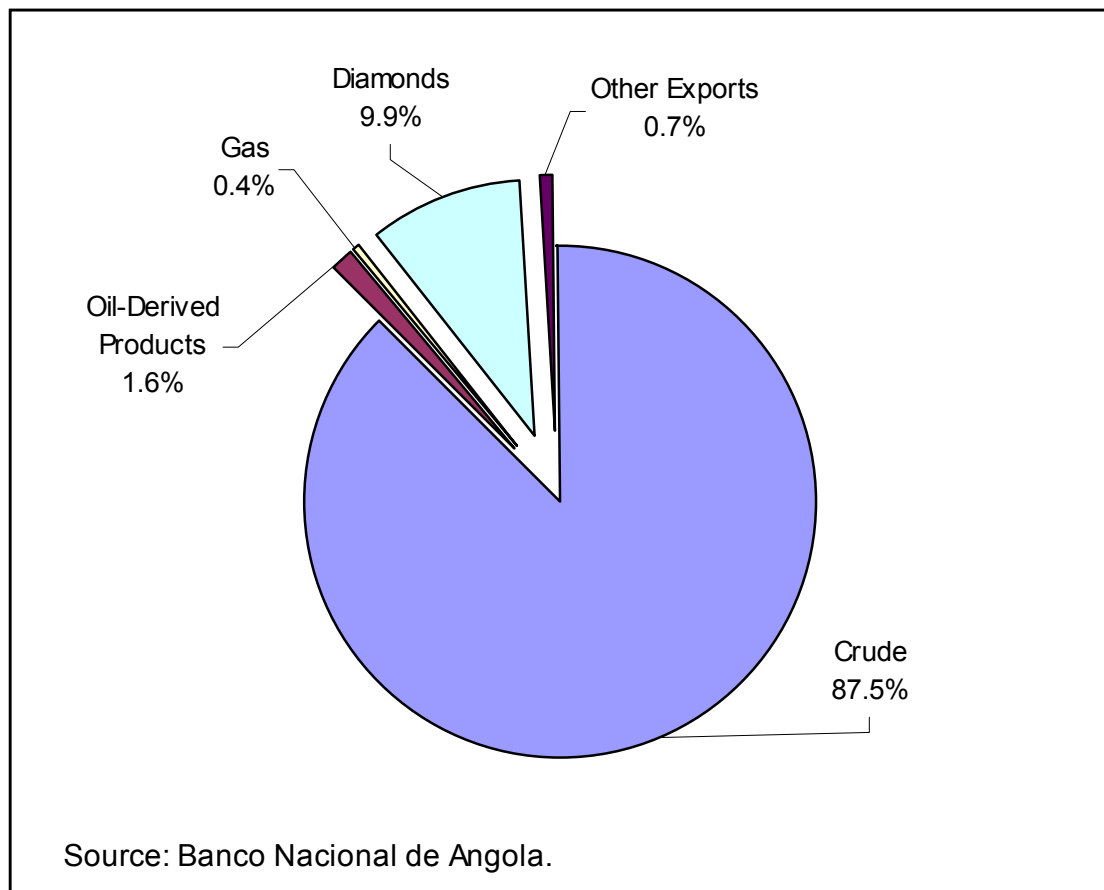
Figure 3: Oil and Non-Oil Exports



As can be seen in the food balance sheet in Table 3, the country is still well short of producing what it needs in terms of basic calories per capita. This is mainly a result of the persistent effects of the dislocation caused by the war, with many farm families having yet to regain levels of production that would allow them to feed themselves adequately, much less produce a surplus for the market. Figure 7 shows area planted together with production over the past several years in Huambo. The steady upward trend in area planted is clear, while the oscillations around the trend in terms of production are largely due to variations in rainfall.

Table 4 shows average Angolan yields together with the average yields for Sub Saharan Africa. It is immediately obvious that yields are very low, even compared to other countries in Sub Saharan Africa. This implies that there is substantial room for improvement – indeed, a doubling of yields would still leave Angola in the lower ranks of the range of yields found in other countries.

Figure 4: Composition of Exports – Average 2001 – 2002



Agricultural exports are at a near zero level, as they have been for many years due to the civil conflict. However, Angola has a long history of pre-independence agricultural exports, having once been a major coffee exporter. Maize was also a major export in the 1970's, amounting to more than 400,000 MT in its peak year, almost all of which was produced by smallholders.

C. Infrastructure

It would be difficult to overemphasize the importance of infrastructure constraints, particularly transport, for Angolan rural development. If producers are to move beyond subsistence they will need adequate physical connections to markets, and these are lacking or in extremely poor condition through much of the country. Accordingly, it is entirely appropriate that the Bank and other donors give priority to rehabilitating the principal transportation routes.

Figure 5: Area Planted by Commodity and Province 2002-2003

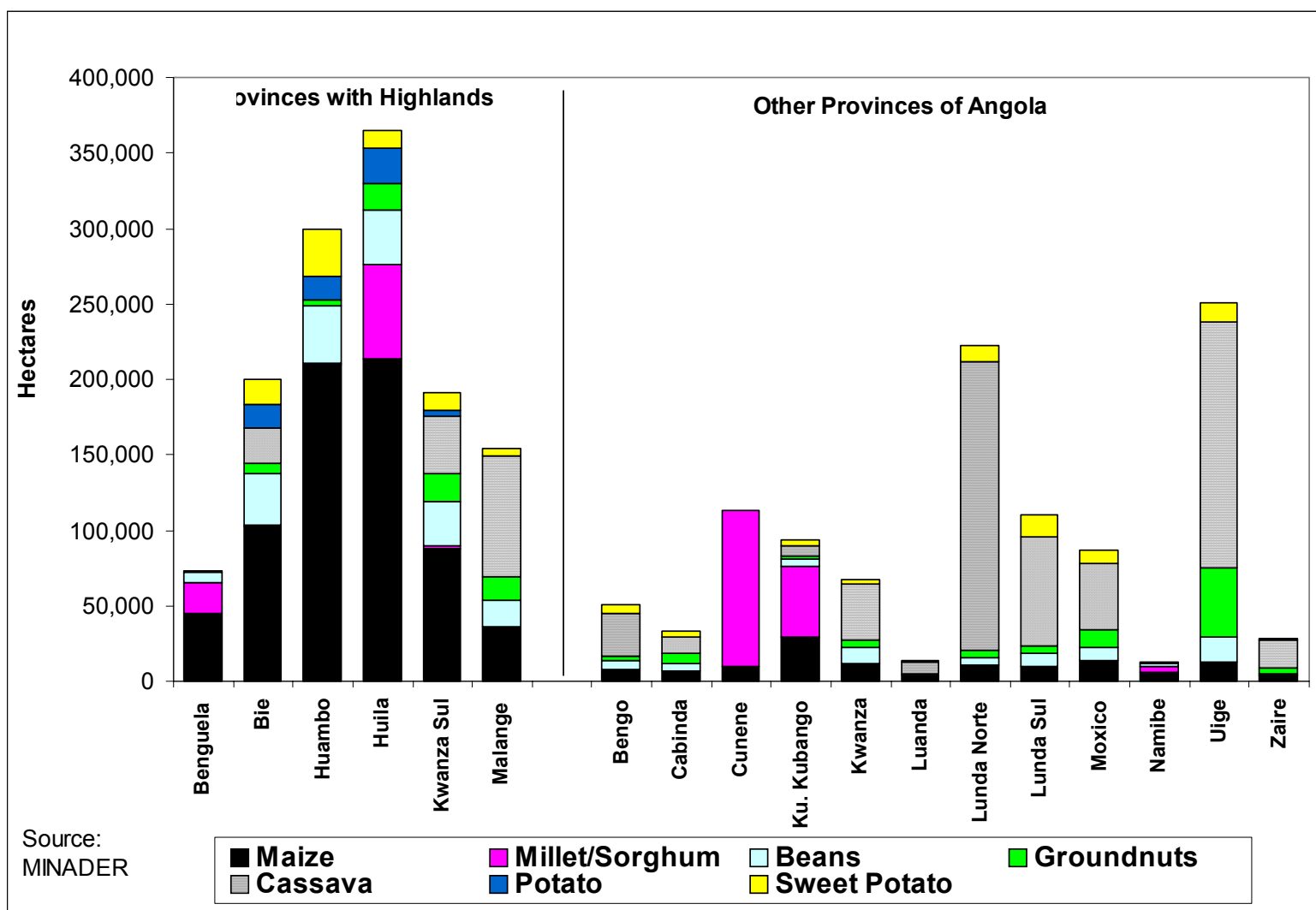


Figure 6: Tonnage by Commodity and Province, 2002-2003

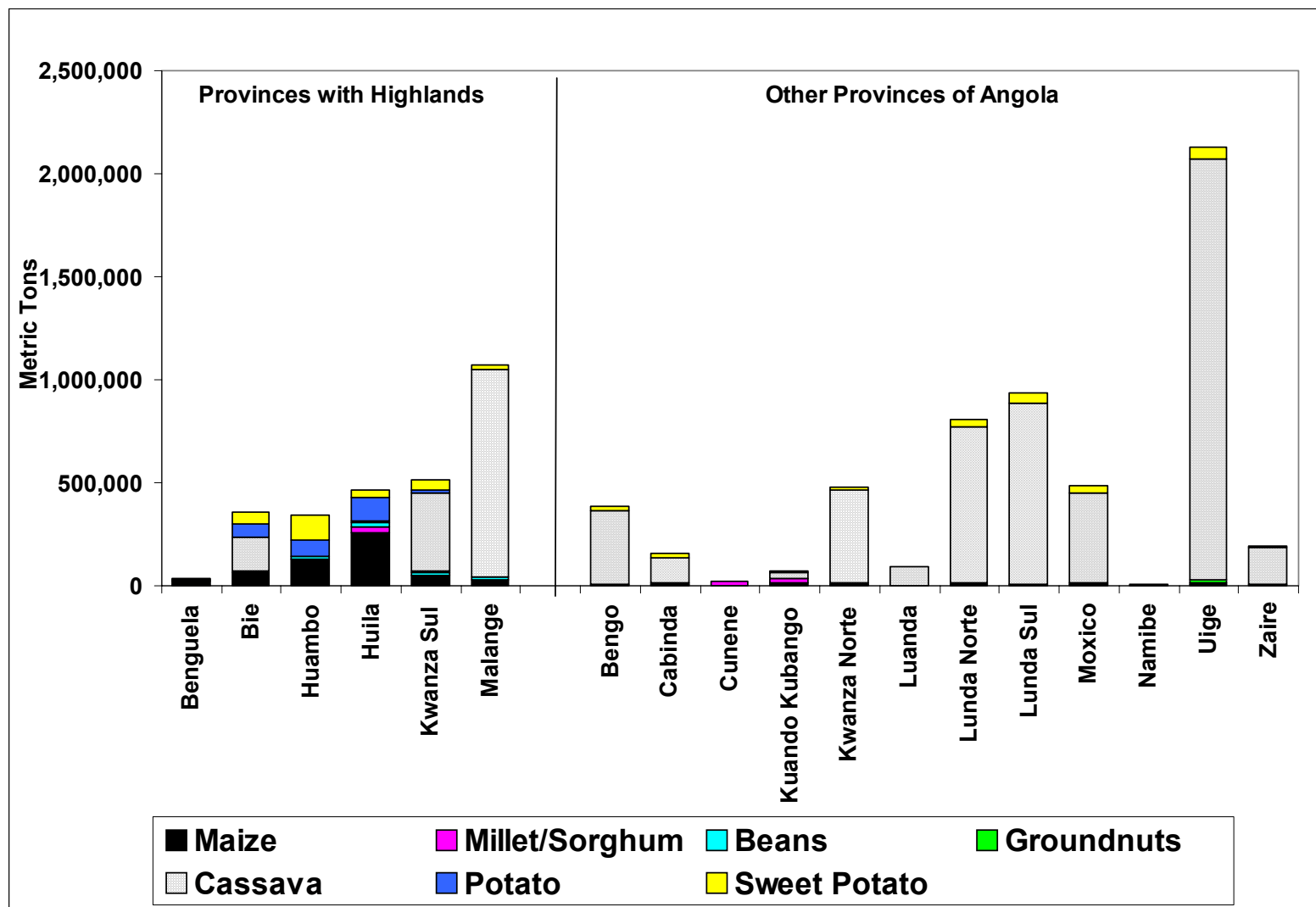
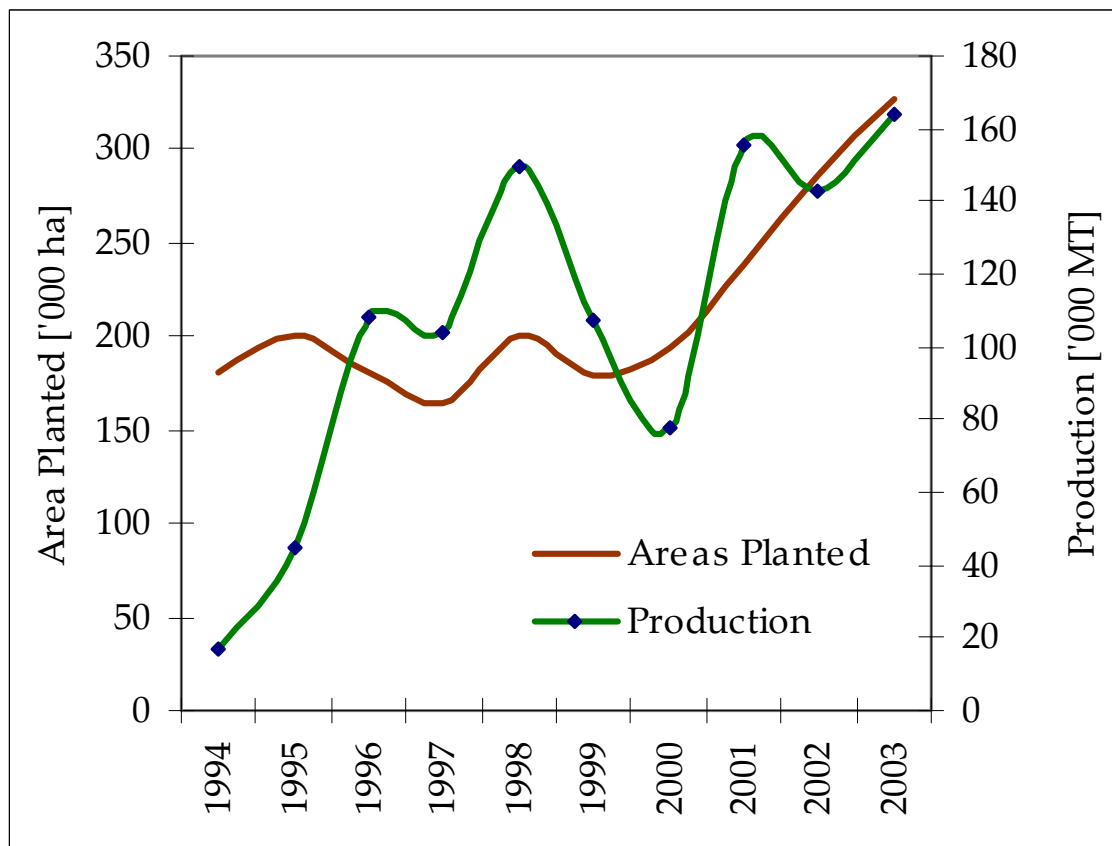


Table 3: Angola Food Balance Sheet

Crop Year 2002-2003, Marketing Year 2003- 2004	<i>Cereals (tons)</i>					<i>Other products (tons)</i>			
	<i>Maize</i>	<i>Millet/ Sorghum</i>	<i>Rice</i>	<i>.1.1</i>	<i>Wheat</i>	<i>Total cereals</i>	<i>Beans</i>	<i>Goundnuts</i>	<i>Cassava (fresh prod.)</i> <i>Potatoes/ Sweet potatoes</i>
A. Total availability	628,684	88,090	14,831	5,000		736,605	234,408	60,849	6,647,758 817,524
A.1. Initial stocks	10,000	5,000	4,000	5,000		24,000	2,000	2,000	20,000 5,000
Commercial sector	4,000	0	4,000	5,000		13,000	1,000	1,000	0 0
Producer stocks	6,000	5,000	0	0		11,000	1,000	1,000	20,000 5,000
A.2. Total production (2002-2003)	618,684	83,090	10,831	0		712,605	232,408	58,849	6,627,758 812,524
B. Utilization	717,360	200,419	243,827	225,225		1,386,830	320,792	67,567	3,082,992 830,156
B.1. Human consumption	641,496	186,343	239,059	213,225		1,280,123	302,922	61,059	1,339,952 703,228
B.2. Other uses	65,864	9,076	768	0		75,707	15,870	4,508	1,723,040 121,928
Seed	16,369	2,429	551	0		19,349	10,263	4,508	0 29,760
Feed	6,187	2,493		0		8,680	0	0	689,216 27,166
Losses	43,308	4,155	217	0		47,679	5,607	2,354	1,033,824 65,002
B.3. Final stocks	10,000	5,000	4,000	12,000		31,000	2,000	2,000	20,000 5,000
C. Imports	88,676	112,328	228,996	220,225		650,225	86,384	6,718	
Surplus									3,564,776
D. Exports	0	0	0	0		0	0	0	0
Deficit	88	44	6.1	2.2		53	73	90	216 98

Source: MINADER.

Figure 7: Maize Production in Huambo



Source: FEWS NET

**Table 4:
Comparative Yields for Key Crops, 2003**

Crop	African Developing (Kg/ha)	Angola (Kg/ha)	Comparative Performance
Maize	1,423	554	39%
Cassava	8,835	8,852	100%
Millet	703	355	51%
Groundnut	855	349	41%
Beans (dry)	608	224	37%
Coffee (green)	448	19	4%

Source: FAOSTAT April 2004

Even given the major road building envisioned in the soon to be initiated EMRP project, there will remain substantial work to be done in the context of an agricultural project on tertiary roads and small bridges. These are essential to reconnecting isolated villages to their local markets and the national market beyond. Some of these needs can be addressed within a FAS style project involving local participation. Such approaches are often useful when there is a single bottleneck such as a missing bridge preventing communication and transport. However, longer or heavier rehabilitation needs will require a dedicated feeder road component in a general rural development project.

In terms of marketing infrastructure, it should be noted that much of this is not best funded by the government. However, there are some areas where government action or reform can be beneficial. In particular there is a lack of municipal and urban market spaces in many parts of the country (simple paved and roofed areas) which can serve as a focal point for trade. At the village level, promotion of communal storage facilities (perhaps through the FAS) could help smallholders to take advantage of seasonal and/or regional variations in price or availability.

IV. The Policy and Institutional Context for Agriculture

A. Real Exchange Rate

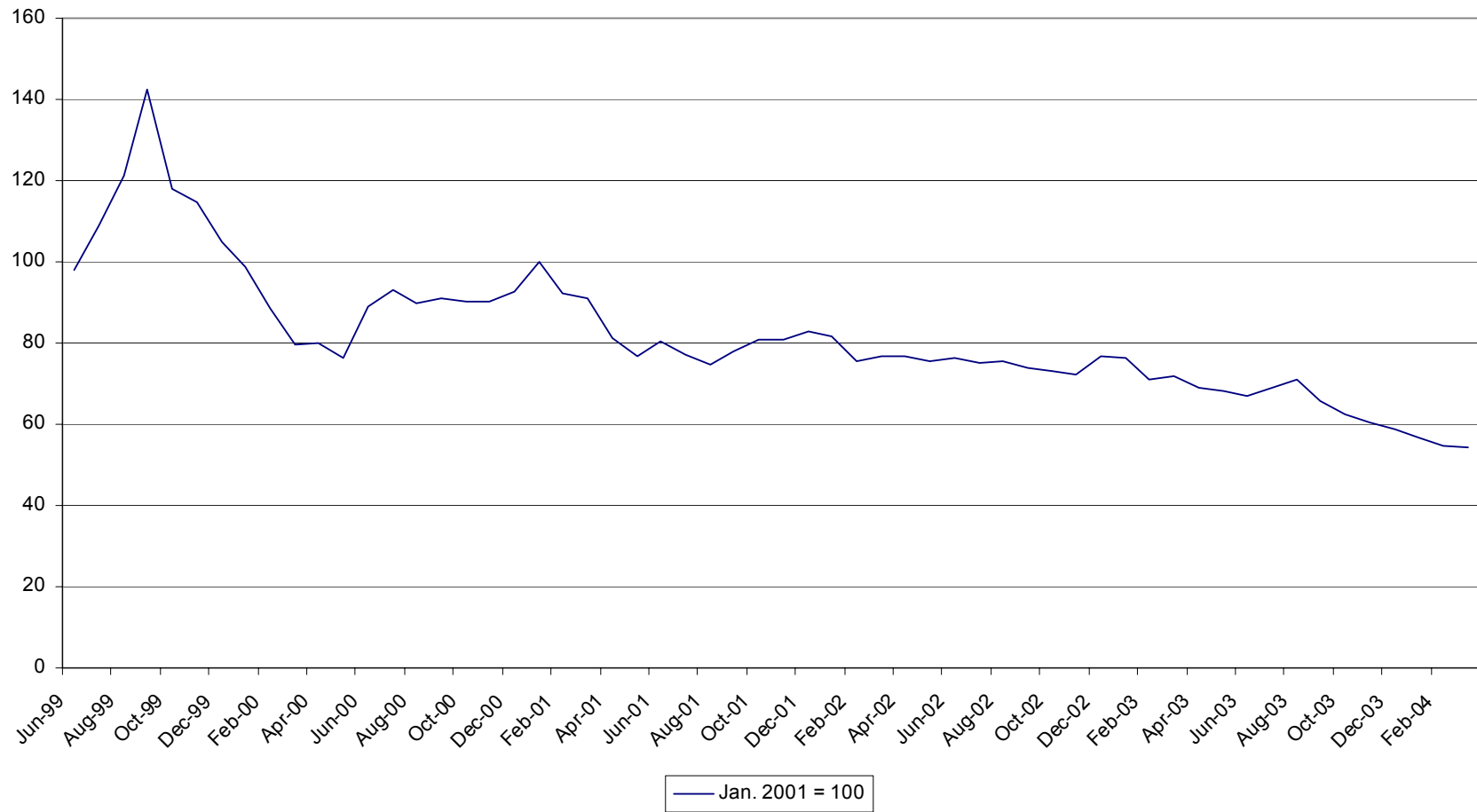
Figure 8 shows the evolution of the real exchange rate over the past ten years, calculated on the basis of the Banco Nacional de Angola's reported informal market exchange rate against the US Dollar. The respective CPI's for each country are used to generate the real exchange rate. It should be noted that the choice of a base year (in this case January of 2001) is inevitably arbitrary. This is particularly so in Angola, where there is no point in the recent past which can be regarded as "normal" or "stable". Regardless of the base year, it is obvious that the period since the beginning of 2001 has been one of continued and large appreciation.

With the nominal rate stable or appreciating over the past year, and with inflation recorded at 76%, there has been a huge real appreciation just in the past 12 months. This has not been a conscious policy objective of the government. Rather, it is a result of the combination of policies in which the policy target is the rate of inflation, and the tool used to get there in the face of large fiscal deficits is the use of large quantities of foreign exchange for financing as discussed above.

This result is typical of oil economies and one which will be a major disaster for the agricultural sector if it continues. Every farmer wishing to produce maize for the coastal urban market has been effectively taxed over the past year by the real appreciation. Casual evidence indicates that they may not be competitive with imports at current exchange rates, but enjoy some de facto protection in the interior due to the extremely poor roads. However, this will change if inflation continues while the exchange rate remains stable. This makes it clear that if some degree of appreciation is

Figure 8

Angola - Real Exchange Rate Index vs. US Dollar



inevitable, then reducing unit costs for farmers is key for their viability as producers of marketed surplus. Failing this, the only way to prevent widespread depression in the agricultural sector is some form of protection from imports.

While it is in no way productive to suggest measures such as the Nigerian rice import ban, it must be recognized that pressures for policies of this type will grow if appreciation continues. In fact, the Nigerian case is quite relevant since the rapid decline of the agricultural sector, and the consequent migration of people out of the sector and the countryside fueled problems and social costs which Angola would do well to avoid if possible.

The Nigeria case has been exhaustively studied both within the World Bank and outside of it. Major studies include those by Gelb et. al., Lele et al. in the 1980's and Schiff and Valdes in the 1990's, which document the evolution of the real exchange rate and its effects on agricultural production in the interior of the country. Due to competition from artificially cheap food imports made possible by real exchange rate appreciation it became possible for producers in the major agricultural regions to buy imported food at the farmgate at prices below their own costs of production. The result was a collapse in domestic production and a conversion of what had been Africa's largest agricultural exporter into its largest importer.

Competitiveness of Imported Maize in Angolan Provinces

Though it would be desirable to conduct a full Domestic Resource Cost analysis of crops in Angola, there is no current basis for performing one given the complete lack of cost of production studies at the farm level. However, some indication of the competitiveness of Angolan production vis a vis imports can be gained from comparing world prices with domestic prices adjusted by appropriate transport costs.

Figure 9 shows "off truck" prices for maize prices collected in several points within Angola in March and April of 2004. These data correspond to the price of maize (adjusted to a metric ton basis from the 50 kg sack maize is typically marketed in) at the point of sale in markets where small traders take trucks after they have filled them with product purchased from smallholders. The figures for Luanda and Benguela are from markets on the outskirts of the city, while those for the other provinces are averages of prices in outlying municipalities.

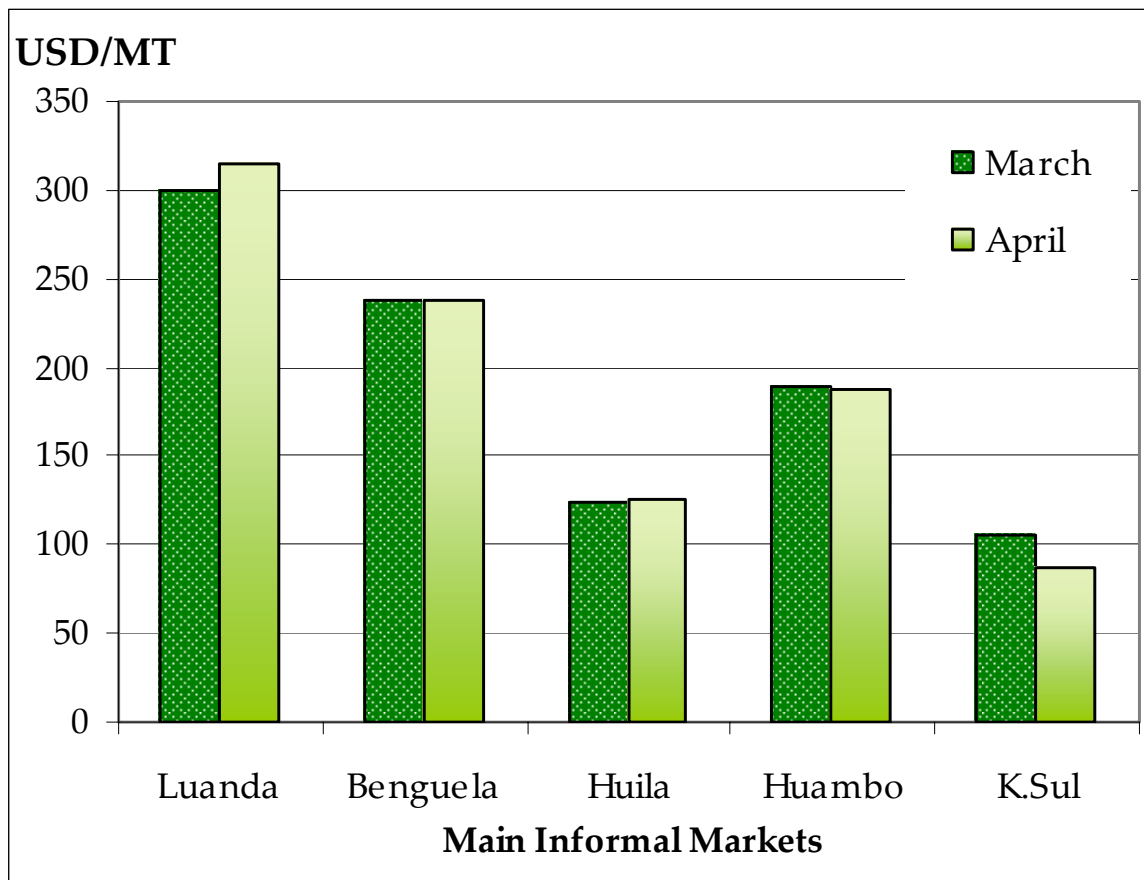
International prices for maize loaded at US Gulf ports earlier this year averaged approximately \$115/MT⁷. If we assume an average cost of \$47.50/MT for cargo, insurance and freight (c.i.f.) costs from that point to Angolan ports⁸ and add a \$20/MT estimate for port costs, including the 2% import tariff charged on grains, handling, and bagging, we arrive at an ex-port price of approximately \$184/MT.

Comparing this price to those in the various provinces, we can immediately see that grain imports are competitive in the port cities of Benguela and Luanda. However,

the comparison in interior cities depends upon the trucking costs from the relevant port (Luanda, Lobito or Namibe) to the city in question. Table 5 shows trucking rates contracted by the WFP with the private sector to various destinations. It is clear that imports are not yet competitive in other provincial cities, though Huambo is relatively close, with a cost of imported grain delivered in Huambo of approximately \$244/MT.⁹ This is only a little more than \$50 above the local “off-truck” price.

These trucking costs can be expected to fall as roads are improved and reliably demined.¹⁰ Indeed, a large road building project to do just that is scheduled to begin in September, while the Lobito/Huambo railroad is currently being rehabilitated and will cut

Figure 9: “Off-Truck” Maize Prices, April 2004



Source: FEWS NET

Table 5: Cost of Grain Transport from Ports to Interior Cities – 2003/2004

Ex Luanda	Rates per Metric Ton (US Dollars)	Ex Lobito	Rates Per Metric Ton (US Dollars)
Kuito	149	Kuito	90
Huambo	110	Huambo	60
Uige	116	Sumbe	29
Sumbe	35	Luanda	65
Ndalatando	45	Lubango	90
Malange	75	Camacupa	120
Lobito	68	Waku Kongo	75
Camacupa	187	Menongue	130
Saurimo	175		
Luen	205		
Menongue	225		
Mbanza Congo	149		
Waku Kongo	95		
Bailundo	110		

Source: World Food Program, Luanda

freight costs drastically when it is completed. What these will be is hard to determine at this point, but it is safe to say that a secure, risk free rail connection to the coast will greatly reduce the margin reported above. To take one example, if the railroad were to halve the cost of transport from the coast to Huambo, the margin reported above would be reduced to only \$20.

Running the calculation in reverse, it is apparent that Huambo is not competitive with imports for supplying Luanda at the present time. With a trucking cost of \$110/MT between these two cities, imports at \$184/MT are far cheaper than maize from Huambo at approximately \$300. However, as noted in the previous paragraph, improved roads will greatly reduce this cost in the near future. In addition, it may be that the informal market is somewhat cheaper than the formally negotiated trucking rates cited here.

Equally important, a continued appreciation of the real exchange rate will have a similarly great effect on the comparison. Continued domestic inflation with a constant traded goods price due to the artificially supported exchange rate could make imported grain competitive in the interior at some future point. In coastal areas this is already the case, as noted above. In summary, the dangers of continued appreciation of the real exchange rate are real, and have the potential to affect grain markets throughout the country.

B. Fuel Subsidies

The recent increases in fuel prices and the long term intention to eliminate what are at the moment very large subsidies to fuel will have an impact on agriculture. Though most smallholders do not use motorized machinery at the farm level and so will not be directly affected by this, they will be at some time in the future and larger commercial farmers will now. Perhaps more important for smallholders is the effect this will have on marketing costs, since most transport is done in trucks. The current price of fuel, at 20 KZ/liter is extremely low though it was recently more than doubled. At an current exchange rates, this translates to approximately \$0.25 US per liter, still a very low price.

C. Current Government Sector Policy on Agriculture and Rural Development¹¹

Few explicit policies are currently stated with respect to the agricultural sector. In addition, some policies appear contradictory, emphasizing the absence of an overall policy framework beyond that of the *Estratégia de Combate à Pobreza* (ECP), in which a number of policy issues are addressed. Of the ten key goals put forward in the document, one is specific to the sector, calling for:

“Minimize the risk of hunger, satisfy domestic food needs and relaunch the rural economy as a vital sector in the process of sustainable development.”

This goal is subsequently broken down into four specific objectives, as follows:

- Reinforce the production capacity of the traditional agricultural sector, particularly with respect to basic foodstuffs and in-shore and artisanal fishing;
- Reactivate internal marketing systems;
- Ensure the sustainable development of natural resources;
- Reorganize and strengthen the legal framework and gradually modernize public institutions, converting them into agents of supervision and promotion of sustainable development.

These objectives are then broken down into specific production targets and goals for expansion of government services. The ECP further stresses the participation of communities, local areas and municipalities as the strategic nucleus of planning, implementation, monitoring and oversight as a basic principle of development.

Other major goals apply indirectly to the rural sector, including :

- Support the return and resettlement of displaced populations, refugees and demobilized combatants to their places of origin or resettlement zones, integrating them in a sustainable manner in the economic and social life of the area;
- Guarantee minimum physical security conditions for citizens through demining, disarmament and the guarantee of law and order throughout the national territory.

Interviews with officials of MINADER, including the Minister, have highlighted the following policy elements:

- the focus of agricultural support will be on the rehabilitation of basic foodstuff production and surpluses among traditional smallholder farmers. The commercial sector, although important, is of secondary importance and better able to find its own resources;
- agricultural production must not be seen in isolation, but should be linked with other areas of rural life, including non-agricultural economic activity;
- Government support to the sector will draw largely upon collaboration with producer and community groups – cooperatives and associations;
- there is a strong need to develop human resource capacities, with a focus on those working at the field level, such as technical experts and extension staff;
- rural financial systems are critical, and must receive priority in development – possibly using ‘in-kind’ exchanges;
- marketing system development should initially focus on ensuring the flow of surpluses to demand areas and the creation of income for peasant farmers;
- the rehabilitation of the rural road network is essential for restoring access for service provision and marketing;

- land tenure issues are important, but are best resolved – where possible – at local level through community and local authority participation;
- irrigation development should be focused at local level, and primarily emphasize small-scale systems within the reach of local communities;
- geographical priority would be given to the central ‘planalto’ region, as it possesses a high production potential and population density.

Despite these policies, however, it should be noted that the bulk of current and programmed investment under MINADER comprises the rehabilitation of large scale Government irrigation schemes, for eventual hand-over to those occupying the land within the command area¹². Limited investment has also occurred or been programmed for rehabilitation of Government facilities (research stations, offices).

Much of the loan funds so far obtained by MINADER have been dedicated to irrigation. Technical concerns have not been entirely resolved; however, it is not apparent that even if successful in restoring water supplies, such investment will be either economically viable, or will be of benefit to more than a small number of farm households. Disputes have already arisen in several schemes as a result of the lack of clear ownership or possession rights associated with properties receiving water, with rehabilitation work sometimes resulting in the emergence of new claimants to the land.

The high proportion of capital expenditure allocated to these schemes contrasts with the Minister’s declaration concerning the importance of small-scale locally managed irrigation and water control measures and will have to be resolved. Allocation of expenditures as well as existing externally funded projects are enumerated in Annexes 1 and 6. Current investment incentives as well as import duties and taxes applicable to agricultural goods are enumerated in Annexes 4 and 5.

1. The Role of the Government in Rural Development in a Liberalized Economy

Discussions of the role of the government vis a vis the private sector are well in the past in many (if not most) African countries but are of immediate importance in Angola at the present time. Though Angola has been independent for almost 25 years, the government has not had free access to much of the countryside for most of that period. That meant that the command-economy structures of the late seventies and early eighties still have not been completely eliminated, and could potentially be re-established in the countryside as resettlement and rehabilitation proceeds.

Perhaps even more important is the persistent control oriented outlook of some in the government. This is manifested in a lack of understanding of how a liberalized agricultural sector operates or of what the government can do to support it. It is obvious that the message has been clear to most in the government that free market economics are the policy of the government, but there is at times little understanding of what that actually means in terms of day to day operations.¹³

2. Parastatals and Direct Government Involvement in Production

First and foremost, it should be affirmed in the strongest terms that the government will not engage in production or marketing activities. While the government has divested itself of many of its large state run operations, there is still a tendency to look to the government for things which in the past were done by parastatal organizations. Perhaps the most obvious of these is the state agricultural machinery company, MECANAGRO, (formerly known as ENAMA) which is even now re-extending itself into rural areas after decades of virtual total absence and cessation of any farm activities. A recent news report stated that this parastatal had plans to buy tractors to “cover the entire country”.¹⁴

Reports from the central provinces indicate that it has a poor record in terms of timeliness of services, but that there are bureaucratic inhibitions to the private importation of farm equipment. This is entirely in line with past experience in Angola with ENAMA and is also in line with numerous examples around the world of poor performance of such organizations. Recently, MECANAGRO has also started to offer subsidized sales of seed and other inputs, undercutting possible private sector development. A standard rule of thumb would be that the government would not be responsible for any activities inside the farm-gate, nor would it be responsible for any marketing services on the input or output side. However, they would focus on infrastructure or other investments with public good attributes such as road building. Indeed, this is perhaps the single biggest need at the present time, and one which could, if allowed, swallow the entire budget available for public investment.

There is a feeling in some quarters in Angola that it is the responsibility of the State to provide needed services in rural areas because the private sector hasn't done so. It is extremely important at this critical juncture, NOT to try to reactivate the old parastatal systems since it is precisely these entities that will prevent the emergence of a viable private sector. One key observation is worth recognizing - Though those who support reactivation of parastatal companies maintain that it is the State's responsibility to see that the needed inputs and services are provided, *these companies have NEVER succeeded in doing their assigned job for the vast majority of farmers*. Simply replicating the old parastatals under new management is unlikely to change this record for the better.

This is particularly relevant in the area of fertilizer. The state company designed to provide fertilizer supply, DINAMA, was one of the most inefficient and ineffective parastatals that existed. Reestablishing it would therefore be a serious mistake. Currently, subsidized distribution of fertilizer is an obstacle to private sector development, though smallholders rarely benefit from it. Given the need for fertilizers in the central highlands, a strategy to address this issue will be important. Elaborated below in this report, there is a distinct role for government in overcoming market failures that impede the development of private sector suppliers. Accordingly, to say that the government will “stay out of marketing and distribution activities” does not mean that there is no role for the government in promoting the development of this sector. Indeed, as noted below, the failure of the private sector to step into this area in Angola and

elsewhere in Africa is evidence of the need for an approach which takes into account the market imperfections that prevent the desired development.

3. Government Policy in Marketing and Distribution

In the area of marketing and distribution the government has long ago ceased to set prices centrally, but is still in the business of setting wholesale and retail margins. These regulations are stated as limits of 25% on each of three market levels: producer or importer to wholesaler, wholesaler to retailer, and retailer to consumer. Though these laws are only sporadically enforced, they remain a distinct barrier to progress in the area of marketing. Justified in the Ministry of Commerce as necessary to control price gouging, there is no apparent recognition of the damaging effects they can have on the growth of rural marketing services. Abolition of these controls, and reform of the Economic Police who enforce them, will be necessary at some point.

At the present time, with inflation of more than 70% during the past year (the lowest annual rate in more than a decade) a margin of 25% is in fact a money-losing proposition. This is particularly evident when it is recognized that inflation does not occur smoothly - that is to say, prices underwent several periods of rapid increase interspersed with periods of relative stability through 2003. A trader has no way to know if a margin of 25% represents positive or negative profits even over a period as short as a few months.

The standard prescription for exploitative marketing and trading (if it is occurring) is some combination of two strategies. One is to promote the entry of more traders into the market to provide competition. The other is to provide farmers with some measure of countervailing power through the development of producer associations. Government controls have demonstrated in Angola and in many other countries that they result in a poorly developed trading network and poorly serviced farmers.

Angola has a confederation of producer associations and traders concentrating mainly on maize and other crops commonly grown in the maize based cropping system. This organization, Epungu, operates in the central highlands and though it was created by the government it does seem to have some degree of independence as it is self-financing. Contrary to a traditional marketing board, Epungu does not have a monopoly; rather, producers pay a periodic fee for the right to market through Epungu.

Given Epungu's ownership of various grain silos in the planalto, and linkages with some institutional grain purchasers such as the military, it appears to have a viable business plan for marketing maize and beans from the planalto. However, its still vague relationship with the government (Epungu reports that its official contact point is INCER, the Instituto de Cereais) needs to be made much clearer if the necessary independence for it to operate effectively as a truly farmer-run organization is to be achieved. At present, it seems better to allow Epungu, as do other marketing entities, compete for financing on an equal basis with other ventures. This is likely to prove a constraint given the extremely

degraded condition of its silos and warehouses.

Advantages of Epungu are that it is now the owner of the formerly government-owned system of silos and warehouses in the planalto. In addition, its capacity for self finance (though small as yet) and its voluntary nature are attractive. On the other hand, its self financing character is at the same time a weakness given the huge expense involved in rehabilitating its infrastructure. In fact, the poor state of its facilities is a major problem for which there is no quick solution. Perhaps the biggest weakness of Epungu is its still somewhat blurry relationship with the government. Though nominally independent, it is clearly government sanctioned and to the extent that government links remain, it is susceptible to political influence.

Other associations, such as AAPCIL in Huila, are entirely independent of the government but are also less capitalized than Epungu, which owns much of the existing infrastructure in the central zone related to grain storage. Nevertheless, given its inclusion of small and medium traders, it is a potentially useful tool for promotion of marketing services and education and support of small traders.

Producer associations have the potential to provide smallholders with a countervailing market power to that of traders, but this benefit will be rendered nil if the government uses the organizations as a channel for the implementation of pricing policies. Therefore, it is important that their formation be done at the micro level, without government intervention. NGO's such as CLUSA have substantial experience in doing this type of work, and have a demonstrated track record of success in Angola and other countries.

In terms of distribution, the government marketing boards are no longer functioning, having been replaced during the long years of conflict by food distribution directed by the World Food Program. During this long period there was little opportunity for private sector development in marketing since many districts were literally inaccessible for years at a time. Indeed, many remain so to this day though various trucking firms have sprung up as access to the interior has been restored. To date there has been no government activity in the area of agricultural marketing boards until the creation of a semi-autonomous unit in MINADER, the Instituto Nacional de Cereais (INCER) which was created with the intention of replicating the role of the old Instituto de Cereais de Angola (ICA), the colonial era grain marketing board. In existence for nine years, INCER has not actually performed any of these functions, first because most grain producing regions were inaccessible and roads impassable, and more recently because of lack of funds.

It would be difficult to overemphasize what a bad policy it would be for the government to actually reenter the grain market to attempt to stabilize prices by buying and selling marketed output. The examples of numerous other countries in Africa and elsewhere have demonstrated the abysmal performance of agricultural sectors when marketing is subject to government intervention of this kind. INCER remains the owner of various warehouses in varying states of disrepair in grain producing zones and along

transport routes. The example of Mozambique is useful in this regard, where the government grain board rented or sold such facilities to the private sector in order to promote private sector marketing development.

4. Land Policy and Farm Size

Of fundamental importance to the development of the agricultural sector are the issues of land tenure and farm size. While these are separate issues, they are related and important ones in the overall vision of the sector. The legal framework surrounding land tenure is somewhat unclear (as is the legal framework in other areas affecting agriculture). A new land law has been written, but has yet to be approved nor have implementing regulations been developed.

Freehold tenure is not possible for Angolan smallholders under current law. Small farmers may have usufruct rights to land for a period of 45 years and can renew this title once for a total of 90 years. It is also within the power of the authorities to grant land concessions to private citizens, and they have done this in some instances, granting title to former large holdings to particular individuals. This has in fact occurred on what is reported to be a widespread basis, though no comprehensive information is available.

These legal issues have little relevance for small farmers not directly displaced by large grants - Officially recognized tenure of any kind is virtually non-existent for small family farmers, rather, local traditional authorities, called *sobas*, allocate land among families in a particular area. The legitimacy of this in the eyes of smallholders depends to a great deal on the legitimacy of the *sobas* since some are in their position by virtue of traditional processes while others have been installed by the government and are viewed as outsiders. But official registration is rare even for larger landholders, given the intricacies of procedures and the weakness of supporting bureaucratic structures.

In many cases, dislocated families who have resettled in rural areas know which exact plot of land they once had and are returning to this same place. Often, this is well recognized by all in a particular area. More difficult are cases where new families settle in a particular area either because of relocation or population growth. Given an estimated growth in the population of somewhere in the neighborhood of 3% per year, there are now twice as many Angolans as there were 25 years ago. Even with today's higher levels of urbanization, there will inevitably be greater land pressure today than in the past, particularly in the most densely populated zones.

The various studies of land registration and cadastre performed by the FAO study and subsequently report extreme weakness in technical terms in the ability to manage a land registration system at both the central and provincial levels.¹⁵ Accordingly, technical assistance in the necessary mapping and registration systems together with assistance in the participatory approaches necessary to ensure respect of the rights of all stakeholders are an important part of any initiative in the area of land tenure and titling.

It is somewhat premature to propose launching a nation-wide campaign of land

titling given the rudimentary state of land registries and the fact that the laws themselves are in flux. However, there is much to recommend ensuring that the rights of smallholders are respected in areas where higher levels of government seek to grant concessions to large private owners. In many cases, population growth has resulted in colonial era plantations being wholly or partly occupied by family farmers, while shifting cultivation systems in other areas make definition of holdings more difficult. At a minimum, pilot efforts at titling smallholders can be initiated in areas with the most pressure on land, or where large concessions threaten the rights of small farmers.

Currently, the FAO is implementing a project that does just this. Accordingly, the best policy for the Bank and other donors is to regard this initiative as a pilot project. Pending evaluation and lessons learned from this effort, the project could be expanded to additional parts of the country.

The current system of usufruct tenure falls short of what most economists would recommend in support of a well functioning land market, but it is important not to let a quest for a “better” land law get in the way of ensuring that smallholder needs are recognized and respected. Of prime importance in areas of potential conflict or pressure is that these rights be recognized - even if only for 90 years. Once “facts on the ground” are created through occupation for a period of time this long, it is far less likely that rights can then be taken away. It should also be noted that many of the benefits commonly associated with freehold tenure, e.g. the ability to mortgage land, will not be available in any case due to other problems, in this case the near total lack of a rural financial market.

In fact, there are widespread reports of large land appropriations by politically connected parties that are done in a less than transparent process, given the current status of the land registration and titling system. It goes without saying that such activities, if true, ought to be halted, and it is in the interest of all to create a more transparent system capable of being monitored by all interested parties. Indeed, the current movement toward more transparency should be extended to land administration as soon as possible.

Farm Size and Government Choices

A general strategy of promoting a conducive market environment for agriculture is one which in most ways is equally supportive of both large and small farms. Clearly, all farms need basic infrastructure and all require a market friendly regulatory environment. This strategy assumes and encourages a vision of the Angolan agricultural sector in the future which includes a mix of both large and small farms all of which are increasingly oriented toward production for the market. However, even such an evenhanded (with respect to farm size) vision does not obviate the need for the government to make choices as to which subsectors of agriculture to invest in.

MINADER has demonstrated a preference for large scale mechanized farming with its choice of investments, allocating them to large irrigation schemes and tractor purchases. This is line with ministry preferences for many years, and is perhaps

reflective of both colonial experience prior to 1975 and the years of socialist-inspired command economics thereafter.

Angola shares with other former Portuguese colonies a history of two distinct types of farms - commercial and family. In colonial times this distinction largely fell along racial lines, but with independence large holdings reverted to state ownership. There, most of them languished, since state capacity for management was limited and the ongoing civil conflict rendered attempts at agricultural production impossible.

Now that reactivation is possible there is a strong tendency among some to want to reactivate the former large farm sector through government support for mechanized operations, infrastructure and other assistance. While growth of large farms is not something that needs to be prohibited or discouraged, there are some very good reasons not to go down the path of replicating in neo-colonialist fashion the agricultural sector of the colonial era.

First, the example of Zimbabwe should give pause to anyone recommending such a course. It would be mistaken to view the Zimbabwean disaster as stemming solely from the difference in color of the large farmers and the disadvantaged family sector. Rather, the political tensions and economic meltdown caused by the promotion of large capital intensive farms at the expense of help to the family sector is something that can easily occur in Angola if the same development path is pursued. While the fact that Zimbabwean large farmers are mostly white may make a viable political reason for dispossessing them, the family sector in Angola would be no less unhappy were the favored few of African rather than European ancestry.

Second, though large mechanized farms are in some ways an easier path to quick output increases, they do not promote rural development if they operate as an enclave excluding the masses of rural population who continue to live at the subsistence level. In the Angolan case in particular, it is a mistake to think that smallholders cannot supply food to urban areas or produce for the export market. They did both prior to independence (pre-independence exports of maize reached 400,000 MT/year, almost all produced by smallholders), and did so with a technological level not visibly different from that in use today. This means that they can not only produce for the export market based on their current practices, but there is substantial room for improvement as well. It is also worth noting that the balance of payments is improved just as much by a dollar's worth of import replacement (if farmers supply Angolan cities instead of using imports to do it) as it is by a dollar's worth of exports.

Third, the experience of many other countries, including several in Africa, demonstrates that smallholder development, though it may take longer to bear fruit, can generate far higher returns per dollar invested than can investment in large capital intensive farms. This is because small farmers are so capital starved that the return to even a small investment is likely to be very large, and also because small farmers are far more likely to stimulate the local economy than are large farms. Whereas large mechanized operations will buy their capital goods from abroad (e.g. tractors), small

farmer implements and machinery can be produced locally, providing a further stimulus to production and to internal trade. Promotion of such multiplier effects is one of the basic goals of rural development efforts, but is lost if most of the inputs are imported as is the case with large mechanized operations.

Fourth, a small farm development strategy is in line with Angola's stated aims of poverty reduction. The majority of Angolans reside in rural areas and the majority of these are poor (indeed, extremely poor by any objective measure). A large farm development strategy which leaves them unaffected would do little to alleviate poverty, and would create political-economic issues in the future which could well make it worse.

Fifth, the desire of some to reactivate production of former colonial era export crops such as coffee has problems that should be seriously considered before money is invested in this effort. First, world market conditions have changed substantially over the intervening years, with world coffee prices now so low that one of the world's major producers, Viet Nam, has even decided to uproot 20% of their coffee area so that it can be planted to other crops. Given the fact that Angola has no advantage over Viet Nam in either labor costs or climate, this should be seen as a strong warning. In addition, the world market for *robusta* coffee, which is what Angola produces in most regions, is much less favorable than that for *arabica*.

On the issue of labor cost, conditions are very different in Angola now than they were in the 1970's. Colonial era plantations could take advantage of what was essentially forced labor, something that is no longer the case today. In fact, in order to assure a sufficient supply of sufficiently cheap labor, it would be to the advantage of coffee plantations to prevent development of small farms since if rural people could make a better living on their own land than working on a plantation, it is likely that they would do so.¹⁶

However, the government does have an entity, the Instituto Nacional do Café (INCA) which is devoted to the promotion of coffee production and rehabilitation of the former export capacity. Reportedly relying on a dedicated donor project, this institute is unlikely, for the reasons cited above, to succeed in restoring coffee to its former place of importance. Given this it is hard to justify a separate government institute in the former coffee regions in the long run since diversification into other crops is likely to play a crucial role in growth in these areas. However, INCA's general development efforts can provide a basis for future extension and development efforts in these regions.

None of this should be taken to mean that large farms should be actively discouraged or prohibited. Indeed, quite the contrary since many large farmers are well positioned to respond quickly to market incentives while at the same time providing a stimulus to growth in the rural areas where they are located. Furthermore, the hope is that one day, successful small farmers will grow into large, commercial ones. The point is that large commercial farmers should not need government supported credit or subsidies in order to operate. If they are commercially viable, then they should be able to access credit markets on their own. Subsidies would only serve to promote enterprises

that might not be viable on their own merits. Nevertheless, large farms can and will benefit from improvements in transport and marketing and in fact may well be the nucleus of future large scale commercial enterprises serving both large and small producers.

Small farms, if they are to support an adequate standard of living for farm families and at the same time produce a marketable surplus, are likely to have to be somewhere in the 5-10 ha. range, given soil and climate conditions in the planalto. This size necessarily implies reliance on animal traction or some other land-using and labor saving technology. Draft animals are well known in these areas, though the population was much reduced during the long years of conflict and dislocation. A survey of farm size would provide the basic knowledge base that is lacking in this area.

5. Rural Credit

Rural financial systems are almost completely absent in Angola. Excluding Luanda, there are a total of 41 bank branches in Angola, which are confined entirely to provincial capitals¹⁷. While most of the coastal provinces typically have five or six banks with offices in the provincial capital, only the Banco de Poupança e Crédito (BPC) and the Banco de Comércio e Indústria (BCI) – both State-owned¹⁸ - have close to a national network. As a result, most provincial capitals in the interior tend to be served by only one or two banks. Commercial bank activity is limited largely to short term trading loans, with agriculture and livestock together accounting for US\$6.3 million in loans in 2002 (up from US\$2.8 million in 2000), or approximately 1.3% of total loans. Fisheries received a further US\$2.2 million in 2002 (0.4% of total loans).

Several Government and non-governmental agencies supplement the formal banking system with specific microfinance programmes, such as those operated by the Ministry of the Family and Promotion of Women (MINAFAMU) or the Development Workshop. One bank, Banco Sol is also active in microcredit, and a new bank supported by USAID and ChevronTexaco – Novo Banco – has now been approved and will shortly commence operations. Nevertheless microcredit in Angola is still very poorly developed. The Development Workshop, which operates the largest microcredit programme in the country, reaches less than 4,000 clients and has a portfolio of less than US\$500,000, all in urban areas of Luanda and Huambo. Rural microcredit operations are almost completely undeveloped. The absence of legislation on microfinance has left those few agencies active in the area operating in a legal vacuum, and rendered the acquisition of capital more difficult. Negative real interest rates are a disincentive to savings mobilization in the medium to long term.

There is a long history around the world of failed efforts at dedicated rural credit programs administered through the formal sector. There is no reason to think Angola is somehow unique in this regard. On the contrary, past credit programs have suffered the typical problems of failing to benefit smallholders while failing minimum tests of repayment and sustainability. This is certainly true of the FADA, a dedicated investment

fund in MINADER, which historically has not engaged in rural credit so much as grants and infrastructure investments. FDES, another dedicated fund, has been linked more with the commercial than with the family sector. Historically, smallholders received in-kind credit from rural traders who knew farmers and both bought and sold agricultural inputs and consumption goods. This network of fixed rural traders is unlikely, for a variety of reasons, to be re-established. Accordingly, other mechanisms will be required if rural credit is to play a role in the reactivation of the sector.

There have been a variety of efforts to promote credit use among farmers in Angola, mediated by a variety of NGO's. As noted above, Banco Sol has been a pioneer in linking with some of these NGO's in lending to small farmers. Among the most important common elements of success are the following characteristics:

- Credit, where successful, has been linked to input purchase and has not been contracted independently. Repayment has been contractually linked to marketing proceeds, rather than leaving responsibility for repayment directly with the farmers
- Successful programs have been associated with farmer associations, thus solving the problem of adverse selection together with economies in administrative areas.

Replication of these successful models can help promote investment and involvement in the market. However, it should be recognized that rural financial market growth is a long term prospect even under the best of circumstances.

Credit for rural marketing enterprises and other small businesses, such as agricultural implement manufacture or food processing are also areas that are in need of financing and capital investment. There is little hope that the formal sector will on its own extend credit to such enterprises. However, there is much to recommend an extension of the microcredit initiatives cited above to small businesses engaged in marketing, transport, farm implement manufacture or food processing on a small scale.

D. HIV/AIDS

While current infection rates are below those found in many other southern African countries, it is likely that this is at least partly due to the long conflict and the difficulties in travel and communication that resulted. As peace and normal circulation returns, it is to be expected that HIV infection rates will grow. Indeed, one source reported that a study of infection rates at a maternity hospital in Lubango showed infection rates of 18%, far higher than has been estimated in recent years.¹⁹ The toll on economic growth in general and agricultural growth in particular is as yet an unknown, even in other African countries where the epidemic is far more advanced than in Angola.

However, given that the disease strikes disproportionately among prime working age adults, there will inevitably be a noticeable effect.

Given the proven importance of roads and transport routes as vectors for transmission of the disease, it is imperative that Angola twin road building and rehabilitation efforts with HIV education and prevention programs. It makes no sense to wait until the higher infection rates manifest themselves since we know that if we rebuild roads, we will inevitably see them.

In addition, it is important that all extension workers have accurate HIV information even if they are not specifically mandated to do HIV education. Not only are they the only outside contact many rural people have, but they are also in precisely the demographic group most likely to be both victims of and transmitters of the disease.

There is a case to be made that labor saving technologies will become more important as the epidemic progresses. This may be true but it is important to realize that from the point of view of the smallholder, labor savings are looked at from a household viewpoint. That is to say, they look at all of the labor requirements of a smallholding rather than just those involved with agricultural production per se. Thus, they may decide that the most important area for labor saving is firewood collection, or transport rather than crop production.

V. A National Vision for Agriculture

A. Agricultural Development, Food Security and Poverty Reduction

This study presents the elements of a strategy for agricultural development and has a primary focus on rural productive sectors and their contribution to local and national food security. Given the fact that a large majority of rural inhabitants are engaged in agriculture, and that a majority of these are among the poorest in the country, it is clear that these efforts will contribute to the overall national effort to reduce poverty.

As a point of departure, it is important to recognize that in a context of successful long term economic growth and development, the process of structural transformation has strong implications for the agricultural sector. The most important fundamental change (given successful sustained growth in per capita income), is that the percentage of the population engaged directly in farming will decrease, meaning that only a subset of current producers will remain in the future.

This implies three observations:

Observation 1 - A strategy of focusing on agriculturally favored regions is appropriate. It is in these areas of high comparative advantage that high returns to investments can be expected. There is no doubt that a national strategy must encompass the whole country,

but this does not mean that all regions should get equal shares of available investments since this would unnecessarily dilute anticipated effects and would not generate positive results compared with a more focused alternative. It should be noted that this is precisely the reasoning behind many donors' current focus on the Planalto Central. However, as noted below, a broader and longer term view of the Angolan resource base generates a substantially broader view of the range of viable investments in the country.

Observation 2 - Even within favored zones, there will be some farms which evolve into viable and growing agribusinesses while others will be absorbed or fall by the wayside. Accordingly, those small to medium farmers or associations which show growth potential merit further investment since it is these which will form the basis of the future farm sector.

Observation 3 - For those households which will through migration or generational shifts leave the farm sector, it is nevertheless likely that they will remain involved in agriculture through cultivation of personal or family plots even as income sources become increasingly devoted to non-farm activities. Accordingly, there is still an important economic (i.e. food security) and environmental case to be made for promoting sustainable low input conservation farming techniques among these populations.

As noted elsewhere in this report, there have historically been two distinct sub-sectors in agriculture, called in colonial times the “commercial” and the “family” sectors. There is a strong (but not perfect) correlation between commercial farms and larger farms, and these typically have direct access to credit and government facilities and resources which smallholders do not have. This strategy focuses on the smallholders, not because large commercial farms are judged to be inherently bad or inefficient, but because of the “public good” attributes of a smallholder oriented strategy. Large farms can be, and are, developed through private sector initiatives without a large increase in public assistance beyond that which they currently enjoy. Smallholders, on the other hand, present at the same time the largest group, that which is most in need of assistance, that which has the largest potential gains in terms of both productive efficiency and welfare, and the least ability for self-sustaining investment and growth.

The overall goals of this strategy are three:

1. Food security in the local sense of helping farm populations to become secure on a household level
2. Food security in the national sense of generating marketed surpluses to replace expensive imports and to improve the balance of payments
3. Promote self sustaining growth in rural areas and in agriculture in particular

This vision can be divided into three levels of involvement. First is the micro or farm level, where there are substantial needs in terms of assistance to health, education, production and other income generating activities, marketing and infrastructure. Second

is the marketing system which connects individual farm households and villages to the larger regional and national economy. Third is the national level, which provides both sources of inputs and markets for outputs, as well as setting the overall relative prices faced by rural inhabitants as they make production and consumption decisions.

Given the three levels of involvement, it is envisioned that intervention/assistance will be needed at each level, from the national level down to the farm level. The current campaign for decentralization gives government sanction to such an approach, mandating that activities be located at the lowest level of government possible in order to ensure direct contact with client populations.

It should be noted that currently national production satisfies a little less than half of national needs according to information from the WFP and the Famine Early Warning System and as shown in the national food balance shown in Table 3. Given the sharp decline in WFP involvement in grain distributions projected over the coming year, a high priority is a return to national grain self sufficiency, both for reasons of economic efficiency and security of farm and non-farm populations alike. This will not be easy. Roughly speaking, a doubling of the current level of output in five years would require almost a 15% growth rate each year. This is an ambitious goal under any circumstances, but it is clearly one that cannot be achieved without substantial growth in yields and outputs at the farm level.

A final note: A strategy which gives priority to large farmers and smallholders who are most able to also produce marketed surplus to help satisfy the national/macroeconomic portion of the stated goals is not one which is directly aimed at the poorest of the poor. Rather, it is aimed directly at the populations where the highest return on investment can be obtained consistent with a growth strategy that maximizes welfare increases for the bottom half of the income scale. This follows from the fact that in order to make growth self sustaining – ultimately the only way to sustainably help the poorest of the poor – investments must have a high return in order to themselves become self sustaining on the micro level. It is this – the creation of attractive income generating opportunities – that is the core of this strategy, rather than trying to raise welfare by directly providing services without the long run revenue streams needed to keep them going.

B. Promotion of Increased Production and Marketed Surplus – An Integrated Approach

Angola's relative abundance of arable land (with some important exceptions) implies that land-using technologies which can increase cultivated area are likely to be economically efficient, particularly as newly rehabilitated roads give better market access to new areas. In addition, higher yielding varieties as well as disease resistant varieties of important crops have the potential to significantly increase incomes for smallholders. The key to unlocking this potential is an increased emphasis on applied research linked with extension to disseminate improved technologies. Much of the needed research is

adaptive in nature; “off-the-shelf” varieties and technologies are readily accessible and can be adapted to Angolan conditions within a relatively short time. The cost-benefit ratios of such a strategy represent a major opportunity.

To take one example, current maize yields on many farms in the Planalto typically range from around 350 kg/ha to around 400 kg/ha. Doubling of these yields is entirely feasible and in fact has been demonstrated in Huambo province but cannot be achieved without increased application of fertilizers and/or adoption of improved varieties. Another entirely feasible possibility is the re-establishment of animal traction through this area, after the widespread loss of large animals through the years of conflict. This would allow households to farm larger areas than they are able to productively use at the present time.

The most binding constraints on the production side can be summarized as follows:

1. Assured supplies of seed, with an institutionalized capacity to develop and disseminate improved varieties appropriate to the various regions.
2. Availability of inputs, particularly fertilizers, from a sustainable private sector input marketing system
3. Availability of draft animals historically supplied from southern provinces with a culture and comparative advantage based on animal production
4. Credit facilities to allow farmers to take advantage of these alternatives
5. Assured market access and information to allow informed decisions regarding production and consumption.
6. Adequate extension services to assist in the adoption and use of all of the above
7. Though not a constraint *per se* it is important to mention the importance of farmer associations as a mediating institution to facilitate addressing the previous six points.
8. Water control on a small scale is also important in many areas of high agricultural potential.

The *first* item, improved seeds which are readily available to smallholders, requires the development of a strong national research effort in major crops directly linked with on-farm trials and seed multiplication efforts. The obvious institutional location for such an effort is the Instituto de Investigacao Agronomica which has been newly rehabilitated in Huambo. Linking the development of the IIA directly to successful screening and adoption of improved varieties will institutionalize the linkage between research and extension which is fundamental to realizing the benefits inherent in improved seeds.

Such an effort is already under way in Huambo province. Accordingly, evaluation of this effort and related efforts elsewhere to judge which components merit replication or additional resources would be a good first step in this area.

The *second* item, fertilizers, are as noted elsewhere in this report, an area in which there has been substantial government interference and mismanagement in the past. Accordingly, this strategy recommends a complete government withdrawal from fertilizer sale and distribution, with the possible exception of government auction of imported bulk supplies insofar as these arrive from donors or other sources. Investigation of the advisability/feasibility of domestic fertilizer production is warranted given the abundance of feedstocks from oil production (most natural gas found in association with oil is currently simply flared off) and the demand both within Angola and surrounding countries in the region. What is NOT appropriate is any government provision of subsidized supplies since this will undercut and prevent private sector development.

The *third* area, draft animals, is one which has already seen the beginnings of reactivation as transport routes between southern provinces and central demand centers have been reopened. However, this process is slow, both because of the natural rate of increase of bovines, but also because of the inability of many farmers to afford large animals. This is not an area where there are ready examples within Angola which can be extended or replicated, but is one which merits study and experimentation with programs designed to provide self-sustaining growth in draft animal use and production.

Extensive growth is obviously attractive when a large percentage of arable land lies unused in the most productive areas. Simply put, there is a limit to how much land a family farmer can be expected to till using hand tools such as hoes. If the HIV/AIDS epidemic worsens, as has been projected by some, it will make the need for land-using/labor-saving technological change all the more imperative. It is highly likely that Angola has yet to see the worst of the AIDS crisis in rural areas. This means that labor shortages of prime working age people (as compared to the availability of arable land) are likely to grow more severe in the years to come.

Mechanization projects promoting tractors in areas currently using hand-hoe technology are unlikely to prove any more effective in Angola than they have in the past in other countries, even though there are certainly some instances in which tractors will be the preferred technology. However, in these cases it is also likely to be the case that what external financial assistance is necessary will be accessible by the farmers themselves. This implies that animal traction is likely to be the preferred method for growth at the extensive margin in most areas.

First, animal traction is well known in the central provinces though the animal population was severely reduced during the conflict and dislocations of the past years. Traditional trade routes with southern provinces which supply animals have already been reported to be reopening, but are hampered both by poor transport and lack of funds to purchase animals. Second, research into the potential for other species, particularly

equines, could also help. In fact, there is a history of donkey and mule use in Angola prior to independence, so there is clearly potential in this area, especially for transport purposes.

However, it is important to note that development of animal traction will necessarily take time. In the South, where cattle production has long been an integral part of the farm economy and rural society in general there is much less potential for increased crop production due to inferior fertility and rainfall. In the Center where such potential does exist, there is a problem of lack of the needed investment funds for those communities just recovering from the conflict. In the North there are possibilities, but animal traction is less well known in addition to suffering greater problems from tsetse infestation.

The *fourth* area, credit, is perhaps the most problematic from a variety of points of view. First, it must be acknowledged that the most viable client populations for a self-sustaining credit system in the short term are not the “poorest of the poor”. While micro credit schemes directed toward such populations have had some success elsewhere in the world, they are both slow and also not always targeted at those farmers most able to expand production. Such schemes are good and should be promoted, but in order to directly assist both the highest return small farmers and the national food balance, farmers who are most able to benefit are those who have some level of established production and basic capital already.

Some success has already been demonstrated in this area by an NGO, CLUSA, which promotes the development of farmer associations in conjunction with a collective mechanism for assured access to suppliers and buyers supported by credit from the formal banking system. The fundamental key in terms of credit is two-fold:

- The NGO backs their micro level credits with a loan guarantee fund to eliminate the risk which typically prevents banks from engaging in agricultural lending
- The NGO also provides the mediation and training needed to first identify appropriate borrowers and then educate them in the requirements of credit usage so that the banks themselves are freed from the need to have direct local contact and knowledge of the farm populations.

It should be noted that this is not a fast process – it can take years for farmer associations to arrive at the point at which they can deal with banks directly without assistance. However, the fact that formal loans are made directly with these clients from the outset paves the way for entry into the formal economy as soon as possible.

From the point of view of the World Bank, assistance to support replication of these NGO activities in cooperation with decentralized extension units (EDA's) will help to institutionalize these mechanisms for the future. Extending these microcredit initiatives to include small rural businesses such as marketing, transport, agricultural

implement supply, or food processing is also a good way to promote the needed recapitalization of these sectors.

The *fifth* item, market access and information, can be addressed most directly at the outset by including a tertiary road and bridge component in any rural rehabilitation loan that is developed. There is still a huge problem in the countryside of villages and farms that are essentially completely isolated from the market. Some of these needs can also be accomplished through the existing FAS, which allows for construction of small bridges or other community felt needs for relieving bottlenecks, but the expense of roads and bridges are typically beyond the capacity of this mechanism.

One important intervention which could be supported through the FAS would be promotion and funding of community crop storage facilities. These would help in the assembling of sufficient bulk to attract traders while enabling farmers to take advantage of fluctuations in the market. Designs capable of local manufacture can be adapted with the assistance of the FAO.

Labor intensive road building and maintenance will not only open villages to market links but will at the same time provide a cash infusion to the local economy. This will have its own beneficial multiplier effects, promoting activity in other sectors. As noted above, it would be difficult to overemphasize the importance of this activity.

Market information is key for farmers and should be disseminated as widely as possible. Replication of successful experiences elsewhere in Africa of weekly radio programs to publicize crop prices in different locations would be a good first step. However, a prior necessity is the development of a system to collect such information in the first place (see below).

The *sixth* element of the strategy is the development of a strong market oriented extension service to support the dissemination of information and the adoption of new technologies/varieties by the farming population. This is an effort which cannot be accomplished with any single effort. Rather, a variety of initiatives at the central and decentralized levels will be needed, but by far the most important are those at the field level closest to the farmers.

The European Commission has a project of this nature, but it is necessarily limited in scope given the expenses involved. With a pilot phase of 5 municipalities, it will provide a useful test of the basic needs for reestablishing and strengthening the direct contact arm of the national extension service, the EDA's. In essence, these need to be improved in terms of staffing and training for market oriented functions, and technology adoption and are greatly in need of basic reconstruction in many parts of the country. With between 70 and 75 EDA's existing, it is clear that this is a long way from the level of effort that is needed, but it is very important to recognize the need to approach the EDA's one by one at the most decentralized level in order to ensure the functions and close farmer contact that is needed for success. It is also essential to link the extension system as closely as possible to field research wherever possible, to maximize the impact of this research on farm households.

At the same time, it will be essential to strengthen the central core functions of the IDA (the entity which is responsible for the EDAs) in order for it to adequately backstop its decentralized units and to break away from its former top-down mode of operation. This means much greater emphasis on its information gathering functions as opposed to its information propagation functions. In addition, it is important to consciously link extension with research efforts at this macro level as well as the micro level, perhaps through an institutionalized linkage committee.

The *seventh* item noted above is the need to develop producer associations as a mediating institution for the other initiatives noted above. Farmer associations can be important (IF they are developed independent of the government) as a way to give individual farmer interests greater weight in market transactions on both the input and output sides. They can also greatly increase the efficiency of outreach and communication efforts and provide an entry point for extension and credit activities. In credit in particular, associations are a way to surmount some of the monitoring and information asymmetry problems inherent in such efforts.

Finally, the *eighth* item is small scale water control. The issue of irrigation is closely related to issues of large farms vs. small farms in Angola. This strategy proposes a reorientation of irrigation investment toward smaller scale systems since these hold the promise of higher returns whether implemented on large farms or small. The bulk of the government's current investments in agriculture are currently devoted rehabilitation of large irrigation schemes which are unlikely to benefit any but a handful of farmers. Though high value horticultural crop production on the coast is a likely beneficiary of these investments it is not at all clear that even these crops can justify the expense of such large expenditures. In fact, it is not at all clear even that technical issues surrounding rehabilitation of large irrigation schemes can be solved in all cases.²⁰ Even if they can be, issues surrounding water rights, management, and organization of users remain to be resolved.

Water control is, however, important for all producers even in areas with good rainfall, particularly in the planalto central where simple gravity fed systems are commonly used. Virtually none of the Ministry's budget is devoted to these ends. However, in the case of farming systems which include water control and/or conservation of various types outside of large perimeter systems, it is not best to split out irrigation for separate management and support.

Irrigation is not an end in itself. Rather, water control can only be adequately supported as part of an overall vision of a given farming system, its needs and its natural resource base. In this way, water control can then be promoted as part of a multi-use system where irrigation is one of a series of goals including uses such as drinking water, aquaculture and more. Accordingly, support to water control is best combined with overall support and development efforts for producers provided through extension services or other development projects. This would imply that the Ministry's unit for water resources, DNHER, would not take an active role in investing in, and supporting

such efforts. Rather, their role would be one of research and assistance to extension, in addition to their current role of managing large irrigation schemes. Given the request by the DNHER for assistance in developing a national irrigation policy, it would appear to be an opportune time for donor assistance and reform.

Fertilizer Policy

The issue of fertilizer policy is one which deserves particular attention, due not only to its importance in the central highlands, but also due to the policy failures of the past. There is no doubt that achieving sustained output increases in the central highlands will require fertilizer inputs. Soils are typically deficient in at least two macronutrients (nitrogen and phosphorus) and the major crops, maize, beans and potatoes, are all responsive to fertilizer applications.

In the past (see above) fertilizer distributions were the responsibility of a parastatal which failed to accomplish this task. Indeed, this is not a problem unique to Angola – state sponsored fertilizer distributions have a long and dismal history of failure in many different parts of the world. There is no reason to think Angola will be any different in the future in this regard than it was in the past or than dozens of other countries have been.

What, then, to do? First, it is important to realize that the only sustainable fertilizer supply system in the long run is one run by the private sector. However, the private sector has failed to perform adequately in the past, so the important issue is to look at the constraints to private sector involvement and how they can be addressed:

- The *first constraint* is the continued sporadic distributions of subsidized fertilizer by the government. Though these don't typically benefit smallholders, they are nevertheless extremely detrimental to market development since a viable fertilizer supply system will depend on demand from commercial farmers as well as small farmers to be viable. In short, the private sector will never develop if there is a continuing threat that the government might at any time ruin their market by undercutting them with low priced product. How to address this? What is needed is a public and ironclad government commitment to stay out of the fertilizer market, and particularly to stay out of the business of subsidizing fertilizer.

- The *second constraint* is the perception that there is a lack of private sector operators willing to put up the capital necessary to finance large fertilizer imports. In large part, the solution to this is the same as the solution to the first constraint above, but insofar as this does not go far enough there are several possible options. First, would be a loan guarantee for banks in order to promote the necessary financing. Second would be the auction of those supplies of fertilizers provided by donors in small lots in provincial capitals.

Though these are not a long term solutions, it is important to note that it is very much in line with standard economic theoretical diagnoses of markets and risk. There is no getting around the fact the fertilizer markets are inherently risky, and particularly so in Angola. It is entirely appropriate for government to assume this risk while at the same time ensuring private market development at the wholesale and retail levels. Auctions can ensure market pricing given the sale of small lots with appropriate safeguards against monopoly power. As demand grows, incentive for entry into the market can also grow *assuming that adequate measures to avoid either market or government instigated risk have been taken.*

- The *third constraint* is the high cost of fertilizer on the international market (though the overvalued exchange rate ameliorates this to some extent). One possible solution to this is the construction of a fertilizer plant in Cabinda where there are both rock phosphates and natural gas feedstocks readily available. This is an option that should be studied extremely carefully before going ahead given the very large optimal scale of fertilizer plants and the less than stellar record of such facilities in developing countries. Nevertheless, the ready availability of raw materials in Angola makes it at least a viable candidate for a feasibility study, which is reportedly now being undertaken by USAID.

C. Marketing, Rural Development and Food Security

Until the past several years, probably the most underdeveloped, indeed repressed, part of the national food system and the national economy in general was marketing. This was a consequence not only of the disappearance of the colonial marketing system upon independence in 1975 but of the Marxist sensibilities of those educated in the Soviet bloc (many Angolans received higher education in the USSR, Eastern Europe and Cuba in the 1970's and 1980's). Marketing was viewed as a parasitical and non-productive activity, and one which was to be strictly controlled. In addition, the widespread destruction which accompanied the civil conflicts of the 1980's and 90's resulted in the virtual disappearance of much of the physical infrastructure as well.

These suspicious attitudes toward marketing are still evident in conversation with many Angolans even today. Perhaps equally important is the attitude toward information, the life blood of a liberalized market system, as an instrument of power and control rather than as something to be disseminated as widely as possible. One of the most important parts of any policy reform package will be the elimination of remaining control mechanisms on marketing as well as the creation of institutions devoted to collecting and disseminating market information as widely as possible.

In light of these observations, the following elements should be part of an overall vision for rehabilitating the marketing system

1. Eliminate all remaining controls on marketing margins as well as reforming the Economic Police who enforce them.

2. Continue rehabilitation of roads and bridges as funding permits over the coming years.
3. Fund construction of basic municipal markets in important market centers.
4. Support creation of market information data collection agency within MINADER and/or the Ministerio do Comercio.
5. Support rapid publication and dissemination of this information via bulletins and radio and TV.
6. Make a concerted effort to eliminate internal roadblocks and other security problems which inhibit the free circulation of goods.
7. Support extension of telecommunications and IT to rural areas to facilitate access to market information.

D. Agriculture and Regional Development

Many observers have seen the Planalto Central as the key to agricultural development in Angola. See Figure 10 for a map of this region. While the importance of this zone is obvious, it is important to view it in the context of the country as a whole. The Planalto is at the same time the traditional granary of the country and the area of densest population. Promotion of grain production and export in this area is in many ways an exercise in rehabilitation, something that makes it an easier task, in addition to having significant positive aspects in terms of poverty alleviation. Proximity to major demand centers (Huambo city) provides an additional incentive as will eventual rehabilitation of transport links to demand centers on the coast. Based on these facts some donors have decided to focus their efforts only on some provinces or regions, particularly the central planalto.

However, neither the government nor the World Bank can restrict its focus to only one or a few provinces. While prioritization must necessarily occur, and initial efforts will of course not happen simultaneously in all parts of the country, it is essential that the government's vision and strategy have a coherent national focus, with activities in each area appropriate to that region's advantages and possibilities. This means that investments should not be at odds with long run potentials, but must also take into account current evaluations of profitability and market access. There are distinct long run advantages in different regions, which should not be forgotten as many donors concentrate their efforts in the central provinces. In particular, we can name at least three distinct areas in addition to the planalto which have a clear and important role in a long-run vision of the sector's future:

- Northern provinces have both higher rainfall and more fertile soils than do the central

provinces of the planalto. Given the dominance of cassava culture, there is more work to do in terms of extension and market development to promote growth of other crops which can be readily sold in national and international markets, but this cannot change the fact that the inherent natural and agroclimatic advantages of these areas are substantial. Deficient infrastructure (particularly roads) will retard progress in the immediate future, but these areas without doubt should figure prominently in a long run national strategy.

One distinct advantage of development in the northern provinces is the fact that more fertile soils lessen the imperative to develop fertilizer markets. However, as noted elsewhere in this report, the long history of coffee cultivation in some areas has led to efforts to reestablish this crop as the basis of the agricultural economy there. Unfortunately, such efforts do not take into account the now vastly different international market conditions for coffee, as well as the transformed labor market conditions within Angola. As road access is improved, market opportunities for a wide variety of smallholder crops will become viable in profit terms. These opportunities will detract from the ability of coffee plantations to attract needed low-cost labor which in colonial times was available on a forced basis.

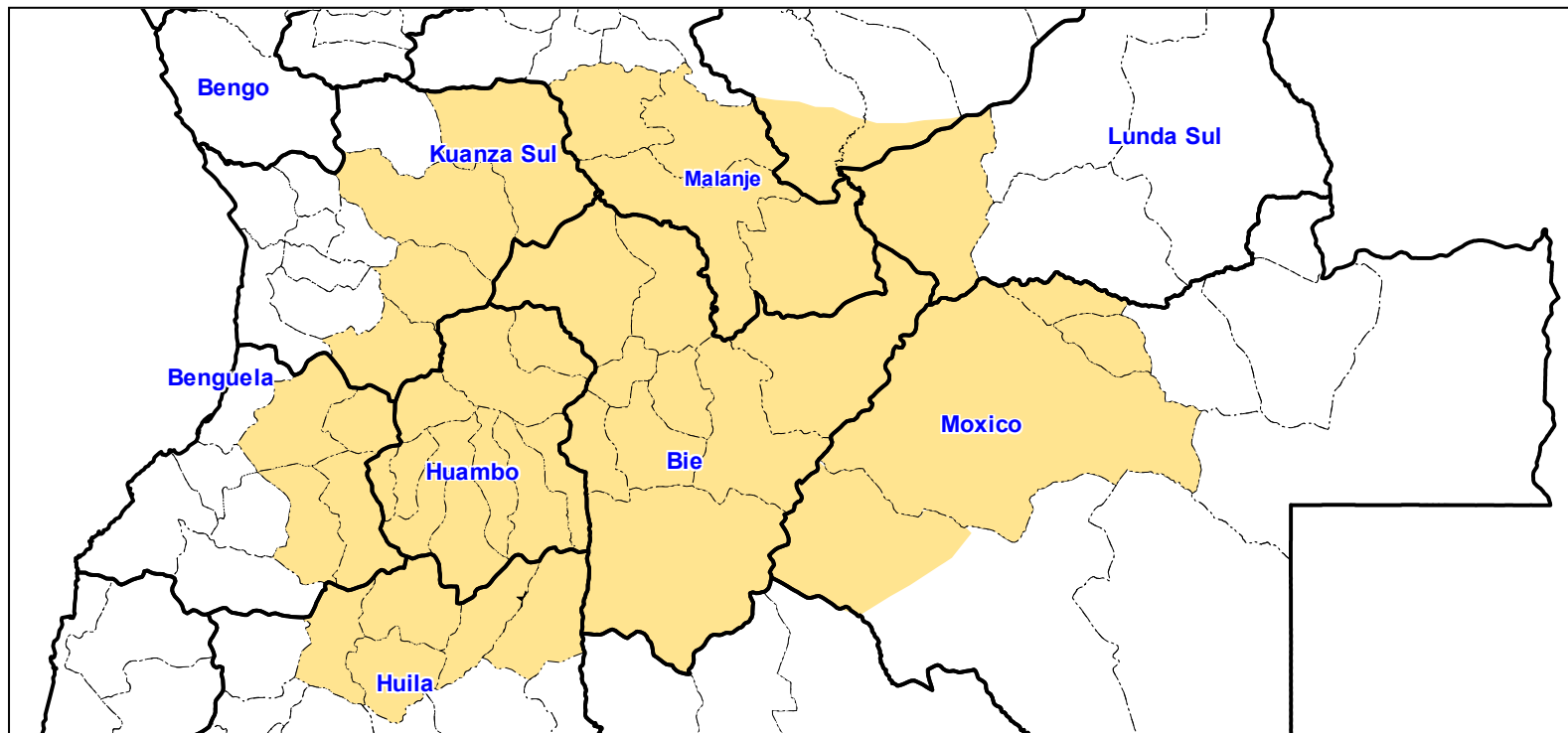
The prevalence of cassava culture and the relative lack of experience with other crops will, as noted above, make development in the northern provinces a much longer term prospect than more purely rehabilitation efforts elsewhere. Even so, cost studies in these areas would help demonstrate the feasibility and profitability of such diversification.

- Dryer southern provinces (e.g. Cunene, Namibe, parts of Huila) have a long history of animal production which can be developed to satisfy national needs over the long term. While not a short run proposition, this merits a place in the long term vision, particularly in light of the shortage of draft animals in other parts of the country.

The beginnings of this trade are already evident as farmers in Huambo province cite northern Huila as the source of draft animals. Given the natural rate of increase of bovines, and the near total loss of animals in large parts of the country, there will be a long term demand for trade with the relatively less damaged south. This trade should remain a factor indefinitely as basic conditions for livestock are much more favorable in the south than elsewhere. While meat production for the country is a reasonable long term goal, the current near total absence of transport infrastructure and refrigeration, as well as the limited capacity of slaughterhouses will prevent this development in the short to medium term.

- Areas in close proximity to major demand centers (e.g. the areas around Luanda, Benguela, and other cities) have developed production of high value crops such as fruits and vegetables. This is a normal development and is one to be supported and encouraged. It should be noted that it is unlikely that grain crops can be efficiently grown on irrigated land, particularly given the existence of large rain fed production zones.²¹

Figure 10: Map of Central Planalto



Given the imperative of replacing food imports and achieving minimal caloric intake for recently resettled populations in the near term, the different regions' potentials suggest a prioritization in terms of time frame. Those areas which can yield relatively quick results, i.e. the traditional grain producing areas in the center and high value horticultural crops in periurban areas (though these are likely to need less or no direct government support), are the first order of business. Animal production, though equally important, cannot produce results as quickly given the natural rate of increase of bovines and other draft animals. Accordingly, though an early start is indicated, results cannot be expected in the very short term in provinces primarily engaged in these activities. Other provinces where there are severe marketing constraints and where the traditional crops are mainly cassava and coffee will take somewhat more time to develop into viable sources for marketed surpluses of staple foods. Though the returns to investments in these zones are likely to be high, it is also the case that they will take considerable time to materialize.

Agriculture and the Southern African Region

In terms of agricultural exports, there are few immediate opportunities for Angola given the massive grain deficits at the present time. However, if large scale grain production is reestablished there would be possibilities for export to food deficit countries elsewhere in Southern Africa. Lower quality requirements in such countries could, in spite of associated price discounts, allow Angolan product a more ready access than other international destinations.

Possibilities on the input side are more obvious and in some cases are already being exploited. SADCC has regional cooperative programs in agricultural research and Angola is a participant. Continuation of these efforts is worthwhile, though, of course, not at the expense of development of locally adapted varieties more directly usable in Angola. Perhaps an even bigger opportunity is presented by Angola's potential for fertilizer production. As noted in the section on fertilizer policy, this option must remain purely speculative pending feasibility and appraisal studies now under way. However, the ability to export product to regional countries and beyond could help production to occur at a scale compatible with lowest unit cost. Though neighboring countries in Africa are not large fertilizer consumers the long run need is indisputable, making this an opportunity worth investigating.

E. Spending on Agriculture²²

The point was made in the sections above that agricultural development cannot be expected to succeed if the real exchange rate continues to appreciate as it has over the past three years. These points will not be repeated here except to say that to allow these macroeconomic problems to undermine agricultural development will prevent overall rural development, and will sabotage the hope of sustained increases in security and welfare for the vast majority of the population. There are numerous examples of such

problems elsewhere in Africa and around the world – while it may sound alarmist to speak in such dire terms about the problems, it is in fact appropriate given what we know will be the result if we allow it to continue.²³

A second issue relating to the macro level is that of adequate funding of agriculture as mandated by NEPAD and supported by the growth potential of investments in the sector. The allocation of budgetary resources to the sector in recent years has been even lower than its share of GDP. Allocations to MINADER for current expenditure for 2004 are AKZ 3.2 billion, or only 0.64% of the national total. However, only AKZ 954 million of this amount had been approved by MINFIN as of March 2004.

Capital allocations to the agricultural sector have been somewhat better, at just under 2% of the PIP, or AKZ 1.5 billion. A relatively minor AKZ 5.9 million was also budgeted in the 2004 PRINF for irrigation development. It should be noted that a considerable portion of the PIP – over 40% - was allocated to provincial governments in 2004. Of this amount, an analysis of provincial expenditure budgets indicates that 8.2% (approximately AKZ 4 billion) was assigned to agriculture and other rural purposes; 2.3% (AKZ 1.65 billion) was purely for agriculture, mostly in the form of irrigation rehabilitation. Non-irrigation infrastructure absorbed the majority of provincial capital expenditures.

Given the destruction of most rural infrastructure, and the abandonment of most Government services in rural areas, such limited budgetary allocations have rendered it impossible to rebuild and resume effective support to rural activities in large areas of the country. To some extent, such budgetary shortfalls have been compensated for by the use of bilateral and multilateral lines of credit. However, these have also been limited in scope and targeted largely at irrigation rehabilitation (see Annex 1). A listing provided by MINADER showed only US\$154 in approved projects, with a further five projects in negotiation.

F. Decentralization and Agriculture

Agriculture is perhaps the prototypical example of an activity that is not best managed from a capital city. While there are undoubtedly activities which must be centrally funded and directed agriculture is by its very nature a dispersed and decentralized activity. This fact, together with Angola's extremely wide variation in agroclimatic zones, infrastructure, and market proximity make linkage of the strategy for agriculture and the strategy for decentralization a high priority.

If the key to long term growth is productivity improvement at the farm level coupled with development of marketing chains to connect farmers with demand centers and/or ports there are necessarily many expenditures which must be made at a level well below that of the country or even the province. Experience in other countries has demonstrated that funding large sector development programs through the central ministerial apparatus will not necessarily result in increased funding levels at the

provincial, district or municipio levels.²⁴ Structuring a project from the very outset to emphasize decentralized decision making and disbursement will enable this field level impact to be felt much earlier, even as the central apparatus is itself streamlined and strengthened.

1. MINADER's Central Functions

The Ministerio da Agricultura e Desenvolvimento Rural is, as its name indicates, dedicated not just to agricultural production per se as in the days before liberalization, but to rural development in general, a much broader concept including all aspects of the rural economy, society and space. This is entirely in accord with broader concerns typically addressed by ministries of agriculture elsewhere in the world and typified by donor strategies aimed at "food security" rather than output increases alone. However, even food security, though a broad concept, does not include matters of health, education, and other sectors that relate to overall rural development. While recognizing that food security is an integral, indeed fundamental, component of this strategy, it is nevertheless the case that MINADER is a principal counterpart for implementation of the strategy for reactivation of agriculture. This is entirely appropriate given the fact that the vast majority of the population in rural areas relies on agriculture directly or indirectly for

their livelihoods and at current low levels of income spend most of what they earn on food and other agriculturally derived products.

Since MINADER is the governmental entity with jurisdiction over many potential interventions that could be proposed to implement this strategy, it is worthwhile examining its institutional strengths and weaknesses. An organigram is shown in Annex 2. The structure discussed here is as described verbally by the Minister and National Directors, but it is worth noting that the personnel and functions of the Ministry have not changed radically from what they have been in the past.

The Ministry of Agriculture and Rural Development is responsible for agriculture, irrigation, forestry, food security, issuance of rural land titles (although it has recently lost its role in cadastral and land registration to the Ministry of Urban Affairs), agricultural research and agricultural extension; the latter through the Agrarian Development Institute (IDA) and its existing 54 field stations (referred to as EDAs) in 13 provinces. In addition to extension services, EDAs provide limited amounts of agricultural inputs (seeds, tools etc.) and do some data collection using their 1,000 staff. Until 1998, EDAs were controlled by the provincial governments and they are likely to return to provincial or municipal control under decentralization proposals now being debated. The structure of MINADER and the staffing and budget allocation by department are detailed in Annex 3.

Headquarters staff amount to 411 persons of an authorised establishment of nearly 800²⁵. Nearly 270 of these are classified as professionals. In rural areas, MINADER's rural presence in addition to the EDAs arises principally from the following activities:

(a) seven 'Agriculture Development Offices' established in key development areas and largely associated with the management of major irrigation schemes; (b) Provincial Directorates of Agriculture, Rural Development and Fisheries (MINADERF) which bring together MINADER and the ministries responsible for fisheries and environment and operate under provincial control; (c) five Regional Forestry Development Centres, under the control of the Forestry Development Institute, responsible for promotion of sustainable forestry and wildlife management, and; (d) a number of specialist research institutes including agronomy, veterinary, coffee, cereals, and seeds. There is also a small veterinary service. MINADER field staff are estimated to total more than 2,000 persons.

While the ongoing push for decentralization would seem to imply a new relationship between the central Ministry and its provincial and lower dependent organs, these have yet to be spelled out concretely. For example, the decentralization law dictates that the municipio level EDA's (Estacoes de Desenvolvimento Agricola) the Ministry's lowest level structure, are to be under the authority of their corresponding local authorities and to rely on central ministerial support for technical backstopping when necessary. However, the financial flows that would allow this independence have not yet been defined much less actually allocated, nor have specific areas of responsibility been defined.²⁶ Indeed, at the present time, there is no independent fiscal authority at the provincial level. This applies both to tax collection and to expenditure authority, which is in almost all cases exercised by central rather than by provincial entities.²⁷

Accordingly, explicit definition of the roles and jurisdictions of each level of bureaucracy, from the national level to the provinces, districts and municipios needs to be made clear to all parties. In addition, the lines of authority also need to be made clear and the financial flows that will support this should also be set up. To date, none of this has happened, but to the extent desired by the government, assistance in making these definitions would be a step forward.

It should be noted that this is not a problem specific to MINADER. Rather it is government-wide, but is perhaps particularly pressing in agriculture given the importance of decentralized functions in this area. While relations between the provincial entities and the center are not specified under current law, there is no bar to operationalizing appropriate relationships in any particular case, including agriculture.

2. Policy Analysis Unit

Within MINADER itself the most striking deficiency is a lack of policy analysis and evaluation capacity. For example, the DNAPF, responsible for setting policy for agricultural, livestock and forestry sectors, does not have a single economist on its staff, while the Gabinete de Seguranca Alimentar has only one, trained in Cuba. Technically, this function belongs to the Gabinete de Estudo e Planeamento (GEPE), but in reality this office has very little analytical capacity. It is the entity which allocates money from the

General State Budget to the various parts of the Ministry and as such has always been a politically powerful position. However, no attempt at cost/benefit analysis or project evaluation or development is made, with decisions being made on other grounds. For example, most of the Ministry's investment budget has been directed toward rehabilitation of large irrigation projects, but these expenditures have not been subjected to any meaningful analysis of risk and return. Indeed, the GEPE seems resistant to such an idea, focusing instead on long range plans and balancing political demands of the various constituencies.

In addition, information systems and data allowing such analysis are not currently readily available in the Planning office. Systematic collection and tracking of money from donors and from the State budget to form a unified and coherent budget picture are essential to the most basic planning and evaluation efforts. Similarly, much important information on agricultural and rural activities on a provincial and lower level are not systematically collected or analyzed, making it impossible to allocate Ministerial efforts across the country on the basis of these facts.

Accordingly, a key need in the Ministry is an office of policy analysis and evaluation, reporting directly to the Minister, and with the following capabilities:

- Improved data collection and analysis systems for agriculture, food and other rural activities
- Unified information collection on donor and Ministry activities and financial flows.
- Policy analysis capability to evaluate alternative interventions and regulations in terms of their desired effects on rural outcomes.
- Project preparation and appraisal capability, to evaluate alternative investments, to prepare projects for funding, and to monitor and implement projects in progress

In particular it is recommended that support be given to a multi-year Market Support Program in either the Ministerio do Comercio/DNCI or MINADER along the lines of the current FAO/EU Program in Mozambique, to give support to legislative and regulation change, marketing information service provision, marketing system analysis, and market promotion, but adapted to the specific needs of Angola.

3. Statistical Unit

Another institutional problem in MINADER is the weakness of the statistical collection effort, particularly in terms of market related information on prices and trade flows. Currently, the only entities in Angola performing these functions are the USAID funded Famine Early Warning System, which has constructed the beginnings of such a system and the WFP's system of monitors for crop evaluation. However, FEWS is currently woefully underfunded and lacking in the ability to cover all geographical areas.

Building of a permanent system on the basis of what has been accomplished so far would go far toward providing the basic data needed for analyzing prices and markets. The Planning Office is responsible for this function within the Ministry, but it is recommended that this unit be linked instead with the proposed market analysis and policy evaluation unit to enable better linkages with those using the information.

Currently, the FAO is sponsoring a project to collect and disseminate market information. Information on prices and trade flows should be given the widest possible dissemination, and it is recommended that current proposals to translate provincial price reports by the FEWS office into Portuguese for widespread dissemination be rapidly approved by the Ministerio do Comercio. Institutionalization of this process within the Ministry would be beneficial.

One note is important. A statistical unit should be independent of any parts of the industry with line responsibilities (e.g. the National Directorates or the Institutes). This will avoid any incentive to bias information in favor of one activity or another. The goal of the statistical unit should be solely to collect and disseminate the most accurate information possible. It might be possible to use some of the staff of the Gabinete de Seguranca Alimentar as a nucleus of such a unit, but many of the current staff would benefit substantially from opportunities for further education in market related analysis outside of Angola. Education in the former Soviet bloc did not typically provide the needed basis for this type of work.

In order to provide an accurate basis for any subsequent decision making it will be essential to collect some basic national survey information regarding area planted and crops produced. At the present time there is no recent information collected on a consistent basis nationwide. The WFP network of monitors could be used to perform such a task, which can be considered as part of preliminary project appraisal activities.

4. Reforming and Renewing MINADER's Existing Directorates and Institutes

MINADER's executive and specialized organs are currently divided into Directorates and Institutes respectively (See organigram in Annex 2; A more detailed description together with budgetary allocations is in Annex 3). Under the former command economy, directorates had a far more direct role in production and allocation systems than is the case at the present time. Interviews with the National Directors made it clear that there is a serious need for capacity building and clarification of missions in these parts of the Ministry.

The National Directorate for Agriculture, Livestock and Forests (DNAPF) is responsible for policy and strategies for the sectors defined in its name, but it is striking that it has not a single economist on its staff. This is a quite glaring omission in a unit ostensibly responsible for policy in a market economy. However, perhaps an even bigger problem is the limited focus of the Directorate - in conversations with its staff it was said

that it was responsible only for commercial farmers, with the Instituto de Desenvolvimento Agrario (IDA) being responsible for the household sector. As noted elsewhere in this report, this distinction, though not without some factual basis, serves to perpetuate colonial era categorizations which are based on a view of smallholders as not having major commercial potential. Apart from this, it makes little sense from an organizational point of view to put responsibility for one type of farm in a Directorate while another is served by an Institute. A rationalization of missions, with a clear unification of strategies and a level playing field for all farms should be one goal of a reform effort.

The National Directorate for Agricultural Hydraulics and Rural Engineering (DNHAER) is the oldest of the existing directorates and is principally responsible for irrigation systems as well as rural electrification, mechanization, and rural construction. Irrigation is by far the most important activity and one which is the recipient of large sums of money for rehabilitation of colonial era irrigation schemes. Here also, as in the DNAPF, there is a strong need for economists trained in project appraisal techniques in order to evaluate the benefits to be expected from the large expenditures made on these schemes. To date, these projects, though the object of the bulk of MINADER's capital expenditures, have not been subjected to a rigorous cost-benefit analysis. More generally, the National Director expressed a need for a defined national irrigation policy, something that properly falls within the purview of this directorate and which the Ministry has requested FAO assistance to complete. The results of this effort will be important in defining the needed staff and structure of this directorate in the future.

The National Directorate of Rural Development (DNDR) is responsible for cadastre and land registry, resolution of conflicts related to this and also has a department devoted to studies and projects in the area of rural development. As noted elsewhere in this report, land registration and titling is a very important activity, as is a thorough debate regarding the new Land Law. Ensuring transparent processes to accomplish this as well as the staff and resources to do it properly will be important for the future of this directorate.

The various institutes that execute policy in the countryside are clearly in need of strengthening and renovation as the government continues its efforts to reestablish services in rural areas. These Institutes are discussed more fully in the various parts of this report devoted to their particular areas and jurisdictions. However, it is important to note that the Ministry would benefit from an evaluation of the missions of each of these institutes and a comparison of this with the financial resources now allocated to each. Annex 3 indicates that the central apparatus receives by far the most funds, while institutes carry much less weight in terms of financial resources. Within the institutes, INCA and INCER account for nearly \$5 million between them, while IDA, responsible for providing services to what amounts to the majority of the country's population, receives less than \$4 million. This contrasts with the IDF, responsible for forests, which receives more than \$6 million.

It should be stressed that ALL of these allocations are less than what can be easily justified, as funding to the agriculture sector in general is far less than what can or should be allocated. However, an evaluation of relative priorities together with an allocation of funds which reflects these priorities seems to be lacking.

As a final point, it should be noted that all parts of Minader would benefit substantially from training and education. Many of the staff desire additional training in their fields or in order to move to related areas, but have had little opportunity to do so for many years. Assistance for study tours, educational leaves or short courses would be something that many in the ministry would like to take advantage of. (See Section H below.)

5. The Example of Mozambique and Proagri

While it would be a mistake to think that Angolan issues are directly parallel to those faced in Mozambique, there are nevertheless some important lessons that can be learned from the post-conflict experience in that country. As in Angola, the long conflict led to a virtual disappearance of government support services from many rural areas, due both to security issues and to the extremely low levels of funding allocated to agriculture and the even lower levels that filtered down to the provincial and district levels.

Rehabilitation of agriculture and of agricultural support services in Mozambique were identified as a priority area for donor support, as is recommended for Angola in this report. Major donors, including the World Bank, supported the formation of a unified sector investment planned called Proagri through which all support was channeled, and which was administered by a joint steering committee including donors and representatives of the agricultural ministry. In this manner it was thought that the ministry capacity to manage project implementation and service provision could be strengthened and improved at the same time that badly needed farm level assistance could be provided.

Now entering into its second phase, the Proagri experiment has yielded several observations which are pertinent to the Angolan case both because of the similarity of the institutional structures that existed post-conflict in both countries and because of the similarity in the goals of agricultural rehabilitation and growth. First and foremost is the perhaps common sense observation that if all aid is channeled through the central ministerial apparatus, then the central apparatus will be the primary beneficiary, with less of the aid getting directly to the farm level where it is needed. Indeed, several observers of the Proagri program have noted that the strengthening of the central bureaucracy, though necessary, has not resulted in any benefits for many farmers and less benefits than hoped for at even intermediate levels; provincial, district, etc. Remedying this perceived deficiency is one of the primary goals of the second phase of the project.

It is for this reason that the strategy proposed here for Angola is intended to strongly support the government's stated desire to decentralize government functions. Many of the functions required to support agriculture (extension and research chief among them) are not best done in Luanda. Rather, it is important to locate them both physically and bureaucratically as near to the intended recipients as can reasonably be accomplished. In this manner, functions such as extension can be built from the grass roots upward rather than from the center down.

Accordingly, an Angolan strategy would be conceptualized as a decentralized effort from the outset. While it is certainly true that MINADER needs support and capacity building, it would be a mistake to expect this central bureaucracy to be able to provide or manage the farm level support needed in the short term or to delay this farm level support until the central capacity has been built. Both tasks are important and both need to be addressed in the near term.

G. Reform of the Instituto de Desenvolvimento Agrario and Research Institutes

1. Extension

Most small farmers have not seen an extension agent in many years, if ever. In addition, many demobilized soldiers and dislocated families have lost their close connection to agriculture in that children have grown up in other settings and so have not learned the trade from seeing and helping their parents as is normally the case. Improving this situation will be a fundamental element of a long term strategy to increase smallholder productivity. The government extension system is extremely weak, understaffed and underfunded. It will take years to rebuild, and while this is under way there is likely to be a distinct lack of adequate extension in the countryside.

The Instituto de Desenvolvimento Agrario (IDA) is the unit within MINADER responsible for the rural extension system. This institute has yet to develop sufficient experience with a decentralized mode of operation to fully take advantage of the opportunities that this presents. The management structure of the Institute remains consistent with a view of agricultural extension that is explicitly top-down and which is not compatible with the needs defined in this strategy though the management has expressed a clear desire to operate in a decentralized manner. However, there is a great need for an IDA that does a good job of performing necessary functions, among which are:

- Information collection – One of the primary tasks of a well functioning extension system is the transmission of information from the farm level up to the higher levels in order to better inform decisions

- To be an advocate for the interests of smallholders
- Training of extensionists
- As a link to research efforts and a channel for dissemination of information

It should be noted that formulation of and dissemination of extension messages is not the role of the central apparatus in Luanda. Such messages need to be formulated at lower levels so as to be informed by, and appropriate to, the particular regions and conditions for which they are intended.

The human capital element of extension is one of the most difficult to deal with in the short term. The schools needed to educate these staff are only now being reactivated, which means that it will be quite some time before personnel can built up to the levels envisioned in even the most modest plans for extension. NGO's often hire the best workers since they can offer better salaries and working conditions than can the government. Though this may be seen as a problem, if it is looked at from another angle it is perhaps beneficial in that the extensionists are kept in the business of doing extension work rather than seeking employment in another sector. If NGO's work cooperatively with government entities, there can be benefits in terms of institutional development as well.

In addition, it is important to develop financing mechanisms which provide the decentralized entities (provincial and lower) with their own resources which can be allocated independently of central control. As noted above, this is a problem not unique to the agricultural sector.

2. Agricultural Research

Angola's rural areas have not benefited from agricultural research for more than a quarter of a century. With access to rural areas difficult at best, and often impossible in the most favorable agroclimatic zones, most smallholders are living in total isolation from any of the possible improvements in yield, or disease resistance or other characteristics that agricultural research and associated extension programs could bring. Accordingly, there is much in the way of "low hanging fruit" that can rapidly be put to use and disseminated for very large gains.²⁸

The key is to fund such adaptive research at the farm level in order to achieve the potential gains as rapidly as possible. Similarly "low tech" improvements are available in many staple food crops, including maize and cassava, which would have a significant impact on the nearly 50% overall national deficit in food availability while at the same time providing substantial gains at the farm level. A collection of germplasm from national sources for a wide variety of crops exists within the country. This invaluable

resource for plant research and improvement merits both support and exploitation to ensure that it can be used to benefit Angolan farmers.

It must be emphasized that very little of what is most cost effective in the present situation is what is commonly thought of as cutting edge agricultural research. Rather, sustained application of known research methods to the problems of small farmers (many of whom have never been the target clientele of a research effort) can generate results in Angola as they have in many other parts of the world. In a situation where the basic agroclimatic fundamentals are favorable, as they are in Angola, yields of 300-400 kg/ha leave a lot of room for relatively low cost improvement.

The primary agricultural research institution is the Instituto de Investigacao Agronomica (IIA) which has a network of nine agricultural research stations throughout the country. It is centered in Luanda, but it is important to realize that very little of what happens in Luanda can be of any possible benefit to actual farmers except insofar as it can help to provide resources and personnel at the more decentralized levels where research must take place.

However, given the extremely tight budgets of this organization and the near total destruction of most of their existing facilities, it does not make sense to embark on a country wide strategy of rebuilding since spreading resources across all nine existing centers would result in a lack of critical mass in any one of them. Rather, it makes sense to start with a subset of the research stations, focusing on rehabilitating only a few but ensuring that they can be brought up to the level where they can actually generate visible results in conjunction with local extension efforts.

A sensible strategy would be to focus first on the flagship research center in Huambo, which is located at the same site as the University's Faculty of Agricultural Sciences at Chianga, and which has already begun rebuilding itself with funds from a variety of donors. Also important would be the research center in the province of Huila, given its location in an important agroclimatic zone and the fact that it has not suffered the physical destruction of other locations. Finally, the research center at Malange would be important due to its location in a the northern agroclimatic zone which, with its reliance on cassava, coffee, and other crops has issues distinct from those of the central highlands or the dryer southern region.

Rehabilitating and staffing even these three centers will be difficult enough but it will be important not to overreach at the beginning. Creation of a viable community of researchers at a given location is important in enabling the institutions to attract the best available talent, as will proximity to and linkage with an extension effort capable of mediating the on-farm research that is key to success.

The situation in terms of animal research is somewhat more difficult. The old IVA, Instituto de Investigacao Veterinaria, located in Huambo was the scene of several pitched battles during the civil war and was left totally destroyed. Even touring the

grounds must be done with extreme caution given the many landmines that still exist around the campus. While there are plans to rebuild on this site, serious consideration should be given to other alternatives given the difficulties and dangers of this particular location.

However, prior to rebuilding, this institute would benefit from a priority setting exercise to determine which activities are most supportive of the smallholder development that this strategy is trying to promote. Many of the stated goals of the institute (e.g. a state of the art artificial insemination facility) would seem to be less in line with these goals than some other investments.

3. Unifying Management of Extension and Research

One reform which would go far toward creating the needed links between research and extension would be the creation of a unified management structure which would set priorities in funding and activities for both. This would reflect the fact that research cannot be considered to be successful or worth the money put into it if it does not result in positive changes on the ground. Similarly, extension activities must be explicitly linked to the research efforts that they support and which provide the rationale for farmer centered activities.

Too often research centers tend to focus on priorities which are not in line with national needs, while extension workers remain uninformed about the latest improvements in techniques. Using extension workers to help perform on-farm trials and pilot or demonstration studies can maximize the effectiveness and relevance of research.

One way to achieve this would be to constitute a steering committee composed of the directors of national research institutes, the extension system, the Faculty of Agriculture, and farmer organizations. This committee would be responsible for commissioning studies of the returns to different kinds of research and would guide priorities accordingly. Linkages between research and extension are equally important at the provincial and municipal levels.

H. Education

Higher education in basic agricultural sciences is centered on the Faculdade de Ciencias Agrarias at Chianga in Huambo. Newly reopened in 2003, the Faculty shares facilities with the IIA, and also shares many of its senior staff. Both benefit from the existence of a development project designed to reactivate smallholder production which uses IIA facilities, FCA students and staff, and also staff of the MINADER from the local Estacao de Desenvolvimento Agrario. This type of linkage between research, teaching and extension has proven benefits in a variety of other countries, and is also an efficient use of scarce resources.

To date the FCA has benefited from support by private donors, but its importance to agricultural development and policy is immense. The need for trained staff in the ministry, in extension, and in research will far outstrip the demand for many years to come. Thus, support to further development efforts which link to both research and teaching should be a high priority. Similarly, the schools for medium level technicians

(tecnicos medios, who constitute the bulk of extension agents) also form an important link since many of the current extension staff are old and will retire soon.

However, the most pressing need at the present time is for “tecnicos basicos” rather than higher level workers. The current situation was described by MINADER as being an “inverted pyramid” where there are more high level technicians than lower ones. This suggests the need for expanded basic education in agriculture, not only to correct this problem, but also to keep the pipeline open to higher degrees.

VI. Action Plan

The action plan presented below can be found in summary form in Annex 9. The matrix in the annex also includes suggested phasing/prioritization for the various options.

A. Policy Reform

Perhaps the single most important policy regarding agriculture is the exchange rate. As discussed above and shown in Figure 8 the real exchange rate has appreciated by more than 40% since the beginning of 2001. Given the continuation of the oil receipts and associated policies that cause it there is reason to believe that further appreciation could be a feature of the coming years as well. There is a real possibility that this, combined with a reopening of transport routes which would allow imports to more readily penetrate the interior, could result in the prevention of agricultural development and production of marketed surpluses.

The conventional answer to problems of Dutch Disease is that those sectors on which the country will have to rely after the oil boom is over should be developed so that they do not stagnate during years of import exposure due to appreciation. In the case of agriculture, this involves promoting productivity increases and production of surpluses at the farm level together with the necessary off-farm infrastructure and institutions that will connect farms with markets.

In terms of farm level productivity it seems clear that Angola has a large potential for increases in yields and off farm surpluses since current levels are low by world standards, and are even low by many African standards as well. However, here there is a problem of timing – Development of the agricultural production potential will take

decades while flooding the country with imports can happen as soon as roads are opened. Indeed, development of the infrastructure and marketing system that connect farmers to markets can as easily work in reverse: Imports can flow inland on newly reopened roads just as easily as exports can flow to the coast.²⁹

The priority attached to agricultural spending in the overall government budget is only about a tenth of the 10% level advocated by NEPAD. Increasing this percentage should be a goal of policy dialogue in the future.

Another area of importance would be the elimination of limits on marketing margins for agricultural traders (indeed, for all traders) as well as confirmation of the elimination of the 10% consumption tax on agricultural inputs. At the present time the exemption is available, but is not easily obtained from Customs without direct appeal to higher authorities in each case. Publication and confirmation of this exemption would ease the import and sale of items such as fertilizer, implements, etc.

Regarding fertilizer, an explicit and publicly announced government policy to refrain from distribution and sale of fertilizer would help private sector growth in this area. At the present time, periodic government distribution of free or subsidized supplies makes it impossible for the private sector to operate with any degree of confidence.

B. Road Building

As noted above, it would be very difficult to overstate the importance of increasing access via a program of tertiary road rehabilitation. Even if nothing beyond this were done, reestablishing access and market contact for isolated populations would be a major improvement for many rural areas.

A large roads and bridges project is already in place and will begin in the next few months. However, though this project has a tertiary road component, it is limited in geographical scope and can be considered to be a pilot project for a larger subsequent effort. Accordingly, in conjunction with other programs aimed at smallholders, it is recommended that a broader labor intensive road building and maintenance program be initiated at the village level. As noted above, this will have the benefit of opening marketing links while at the same time providing a cash infusion to the local economy.

C. Marketing

The recommendations here are drawn both from this study and Economic and Sector Work performed in preparation for this study³⁰ as well as the FAO Agriculture Sector Survey of 2004. Marketing is key to the development of rural areas and of agriculture, but is neglected by the current institutional arrangements and emphases of the government. Indeed, much of the information needed to implement investments and

reforms is still lacking, but enough is known to proceed in the most important areas

1. Support the creation of a market policy and data analysis unit within MINADER reporting directly to the Minister and Vice Ministers. There is currently no unit within the Ministry with the primary task of providing such analyses. The experience of Mozambique is extremely relevant in this regard and a study trip for the responsible members of the Ministry should be sponsored in support of this goal.
2. Implement a market data collection system based on that already pioneered by the USAID supported Famine Early Warning System, which has the beginnings of a provincial network of workers collecting data on prices of agricultural goods and costs of marketing and transport. This system is well constructed but underfunded and lacking in geographical coverage. It might be possible to accomplish this by using some of the staff of the Gabinete de Seguranca Alimentar as a nucleus but this could only be done if substantial training and capacity building is undertaken.
3. Support farm level cost of production and market linkage studies in various agroclimatic zones to establish the basic information needed for interventions to promote food security and marketed surplus. These, together with cost of transport and marketing studies noted above can provide the basis for evaluating the competitiveness of alternative crops for export or domestic sale in different regions.
4. Support the initiation of marketing chain studies for principal crops, based on collaboration with the private sector. These will help to identify bottlenecks and infrastructural investments needed.
5. Support explicit inclusion of marketing content in extension programs (see extension section) through EDA's and/or NGO's operating in the country.
6. As noted above under policy reform, eliminate all marketing margin controls enforced by the Ministry of Commerce as well as confirming and publicizing the exemption to the requirement for farmers to pay the 10% consumption tax on agricultural inputs.
7. Support investments in municipal markets where these are lacking, to allow traders and merchants a focal point for buying and selling produce.
8. Where existing infrastructure is government owned, allow for private sector leasing or purchase as has been done elsewhere in Africa. An immediate first step would be the completion of an inventory of existing facilities coupled with an evaluation of their condition.
9. Assist community level storage efforts through microcredit or FAS or a related mechanism.
10. Support research in farm level storage methods appropriate to Angolan conditions.

In particular, cooperate with the FAO to determine which of their existing plans for such facilities would be most amenable to Angolan conditions and local manufacture.

11. Review appropriate functions for the Instituto Nacional de Cereais and affirm that the government has no intention to become active in buying and/or selling grain or other agricultural products for market stabilization or other purposes.

12. Make an effort to eliminate roadblocks and other security problems along transport routes that inhibit the free circulation of goods.

13. Support extension of telecommunications and IT to rural areas to facilitate access to market and other information.

D. Smallholder Development

As noted above, the key to success is a broad effort to support and develop smallholder agriculture in high potential zones. As emphasized above, this is not a direct poverty alleviation program in that it is not intended to achieve universal coverage of the smallholder sector. Rather, it is intended to stimulate growth and its consequent multiplier effects by focusing on improving marketing in conjunction with farm level efforts to increase production. The following actions will form the core of the effort:

1. In conjunction with both decentralized government entities and NGO's with the ability to reach directly to the farm level, expand existing development projects in the Planalto and other favored regions which focus on smallholders. These projects integrate on-farm research, extension, credit/input supply mechanisms and, most importantly, marketing chain development to support sustainable increases in farm household welfare and marketed surplus.

2. Continue and expand development of farmer associations to mediate the above series of interventions where this is indicated.

3. As noted below, provide direct assistance to the decentralized functions of research and extension in project areas.

4. Provide a support for domestic banks such as Banco Sol to create incentives for lending to small scale enterprises in marketing, transport, input supply, food processing, manufacture of implements, multiplication of seed and draft animals, and other rural small enterprises.

5. Expand the activities of the FAS to include more productive investments such as communal grain storage facilities or other infrastructure of a productive nature.

6. Where needed, support labor intensive tertiary road rehabilitation work to both increase access to isolated villages and also to provide an injection of cash into these areas.

In terms of timing, the traditional grain surplus zones of the planalto together with periurban zones offer the most immediate returns (given adequate road or rail access) while animal production will take somewhat longer to rehabilitate given natural rate of increase constraints for draft animals. Fertile and wetter areas to the north offer considerable returns but over a longer time horizon. However, it should be noted that large commercial operations in periurban areas are less in need of government support than smallholders will.

E. Input Supply and Support Services

The following recommendations follow from the above discussion:

1. Initiate pilot projects in each of several agroclimatic zones aimed at strengthening provincial and municipio level extension functions. In particular, emphasis on services such as marketing and other market related activities such as storage at the village and farm level. However, it is important NOT to get extension services into the business of providing inputs or buying output directly.
2. Support expansion of educational programs for extension staff in Huila and Huambo.
3. Review current seed multiplication projects in order to evaluate the appropriateness of replication of those which appear most promising particularly those supported under the current EMRP project.
4. Publicly announce intention to keep government out of fertilizer and seed distribution. Instead, support auction of existing government fertilizer stocks or other input supplies at point of import and/or provincial capitals. Consider the feasibility of domestic fertilizer production.
5. Study appropriate functions of Mekanagro and reform as appropriate. In particular, Mekanagro has a potentially important function in road rehabilitation in rural areas, where it is of course free to bid on road building contracts as is any other contractor, but should not be directly engaged in production. The history of experience with these activities in Angola and around the world demonstrates that this is an inefficient use of resources.

F. Decentralization and Institutional Reform

1. Perform a national agricultural survey over the next crop year (November – May) to

form an accurate information base regarding area planted and crops harvested to support all subsequent decision making. The WFP system of monitors could be used to perform such a survey. Such a survey could provide the first task of a newly reinforced and independent statistical unit within MINADER.

2. Support establishment of a market oriented policy analysis unit within MINADER reporting directly to the ministerial level. Support needed training and capacity building to perform needed market analysis.

3. Support reform of research and extension functions as follows:

- Support EDA's at the municipal level as planned in the government decentralization initiative as noted above under smallholder development.

- Support rebuilding and training at three IIA research centers at Humpata, Chianga, and Malange.

- Support direct linkage between research in extension at both the decentralized and central levels. At the farm level, this can be done through smallholder development projects with an on-farm research and demonstration component. At the central level, a steering committee to set priorities and funding for research and development could provide the necessary focus on the goal of increasing smallholder output and welfare. Such a committee could have representation from research institutes, the extension service, the Faculty of Agriculture, and farmer associations.

4. Support education and capacity building through the following steps:

- Support rehabilitation of schools and training centers for tecnicos basicos and medios.

- Support the Faculdade de Ciencias Agronomicas and its links with the IIA through continued education for staff and links with outside institutions.

- Support training for IDA staff at all levels, but particularly in decentralized organs.

5. Conduct a study devoted to assisting Minader to specify missions and roles of its internal organs in a reformed and decentralized environment. This study could also specify particular capacity building and manpower needs in each subunit.

G. Irrigation and Water Control

1. Provide technical assistance to DNHER in formulating a national irrigation policy to shift its focus from one of managing large scale irrigation schemes to one of research and

development of smaller scale water control technologies. These smaller scale schemes would integrate irrigation into a broader scheme of water use including drinking water, aquaculture and other items appropriate to particular locations.

2. Existing large projects require institutional development of systems of water rights and management.

H. Land Tenure and Titling

The following actions are based on the discussion above and are discussed in greater detail in the Land Tenure Study written in preparation for this strategy. As noted above, the FAO is currently responsible for implementing a pilot project aimed at these objectives. Pending evaluation of this effort, additional support may be indicated for expansion and/or replication of this project in additional areas.

1. Improve technical capacity in cadastre and registration at the provincial and national levels including information collection needed to support the system.
2. Assist national and local governments in implementation of participatory methods in the Angolan context.
3. Publicize requirements for legal recognition of tenure. Post explicitly at all offices of provincial and municipal government.
4. Initiate registration of community and other smallholdings under current legislative framework in a series of pilot projects in areas with the most severe pressure on land.

I. HIV/AIDS

While an overall HIV/AIDS policy is beyond the scope of this strategy, there are some particular initiatives directly related to agriculture which should be pursued.

1. Require basic AIDS education for all extension workers.
2. Support HIV/AIDS awareness and prevention programs in conjunction with all road rehabilitation projects.

CONTACTS

Carlos Alberto – Mecanagro
Cristina Amaral - FAO
Sr. Almeida – MINADER / General Secretary
Guillaume Barraut – CE
Kodendera Belliappa – WFP
Dalmacio Benicio – UNDP
Emilio Bernardo – INCER
Victoria Braganca – MINADER/DNAPF
Tomas Caetano – MINADER/IDF
Roberto Calza - CE
Antonio Cardoso – MINADER/GEPE
Gomes Cardoso – Ministerio do Comercio
Francisco Carneiro – World Bank, Washington
Benjamin Castelo – INCER
Joaquim Cesar - IIA
Ernesto Chicucuma - Epungu
Laurence Clarke – World Bank, Luanda
Neto Costa – Ministerio das Financas
Francisco Cruz - BP
Cristobal Delgado Matas – CE
Manuel Dias – INCAFE
Hermenegildo Keane dos Santos – MINADER/DNHER
Joaquim Duarte – MINADER/IDA
Frederic Fetweis - FAO
Paulo Filipe – FEWS NET
Fernando Gomes – MINADER/DNDR
Victor Hugo – FAS
Sr. Kanga – MINADER/IDA
Dario Daniel Katata – MINADER/ Vice-Minister
David Kiala – Universidade Agostinho Neto
Olivier Lambert – World Bank, Luanda
Gilberto Buta Lutucuta – MINADER/Minister
Lisa Maier – World Bank, Luanda
Susan Mills - FAO
Rui Minguens – Banco Nacional de Angola
Pietro Nardi - CE
Eduardo Severim de Moraes – Ministerio do Planeamento
Gonzalo Pastor – IMF
Boa Antonio Pedro - IVA
Aida Pegado – Universidade Agostinho Neto
Domingas Pegado – World Bank, Luanda
Pierre-Francois Pirlot – UNDP
Alves Primo – MINADER/DNDR

Manuel Alves da Rocha – UCAN/Ministerio do Planeamento
Estevas Rodrigues - CLUSA
Zacarias Sambeny – MINADER/ Vice Minister
Carlos Seabra - FADA
James Shyne – AEAF
Arsenio Sousa – CE / PMR
Eduardo Sousa, World Bank, Washington
Alfredo Teixeira – UNDP
Capela Tapa – Universidade Agostinho Neto/ Faculdade de Economia
Joao Sebastiao Teta – Universidade Agostinho Neto/ Rector
David Tunga – GSA/MINADER
Paulo Vicente – FAO
Walter Viegas – CE

Bibliography

- ARDOR. 1996. Engenharia Rural. Agricultural Recovery and development options review. Luanda, Angola, FAO. 50 p. (Working Paper 10).
- ARDOR - O Sistema Financeiro Rural, Agricultural Recovery and Development Options Review, Working Paper 22
- Ashby, J.A. 1990. Evaluating technology with farmers. A handbook. Cali, Colombia. Centro Internacional de Agricultura Tropical (CIAT). 95 p.
- Banco Nacional de Angola, Angola: Exports Composition 1994-2001, BNA
- Atlas Geografico. Ministério da Educação de Angola, 1982, 49p.
- Calegar, Geraldo, Programme Review and Mission's Findings, Documento de Trabalho No. 6, Agricultural Sector and Food Security Review Update (TCP/ANG/2907), December 2003
- Carta Generalizada dos Solos de Angola (3^a Aproximação). Lisboa, 1968. 275p.
- Castanheira Diniz, A. 1973. Características mesológicas de Angola. Nova Lisboa, Angola. Missão de Inquéritos Agrícolas de Angola (MIAA). 482 p.
- Correia, Isabel, Diagnostico Rapido Rural Zona Agro-ecologica Orla Baixa, Costeira Provincia de Benguela, Documento de Trabalho No. 7, Agricultural Sector and Food Security Review Update (TCP/ANG/2907), December 2003
- COSUDE. 1998. Manual de fabricación de silos metálicos para almacenar granos. Nicaragua. Programa Regional de Postcosecha/PRP. Agencia Suiza para el Desarrollo y la Cooperación/ COSUDE.
- Da Silva, Carlos Arthur Barbosa, Machado, Jose & Salapula, Hilario, Pos-Colheita, Agro-Processamento e Comercializacao de Insumos e Produtos Agro-Pecuarios Documento de Trabalho No. 1, December 2003.
- DEP, Estrategia de Combate a Pobreza (ECP) Versao Sumaria, Ministerio do Planeamento/DEP, Luanda, 11 de September 2003.
- DNHER, Contribuição as Políticas de Irrigação para Angola – II Encontro Nacional de Hidraulica Agricola e Engenharia Rural, MINADER, Luanda, 24-26 Junho de 2003
- Empresa Brasileira de Pesquisa Agropecuária – Relatório final da Missão EMBRAPA em Angola – 2002 (08/2002).

FAO, Diagnostico Rapido Rural Zona Agro-Ecologia Tropical – Sistema Mandioca – Provincia de Moxico, Documento de Trabalho No.17, Agricultural Sector and Food Security Review Update (TCP/ANG/2907), March 2004.

FAO, Diagnostico Rapido Rural Zona Agro-Ecologica Planaltica – Sistema Café - Mandioca Provincia do Uije, Documento de Trabalho No.18, Agricultural Sector and Food Security Review Update (TCP/ANG/2907), March 2004.

FAO, Diagnostico Rapido Rural Zona Agro-Ecologica da Planalto Central Sistema Milho-Feijao – Provincia do Bie, Documento de Trabalho No.12, Agricultural Sector and Food Security Review Update (TCP/ANG/2907), December 2003.

FAO, Diagnostico Rapido Rural Zona Agro-Ecologica de Baixa Pluviosidade Sistema Pecuaria – Sorgo – Provincia do Cunene, Documento de Trabalho No. 13, Agricultural Sector and Food Security Review Update (TCP/ANG/2907), December 2003.

FAO, Smallholder Agricultural Development Project in the Bom Jesus Greenbelt - Pre-formulation studies, TCP, November 2003

FAO Relatório do Seminario de Alto Nivel “Terra como Fonte de Estabilidade e Desenvolvimento Socio-Económico, TCP/ANG/0168, Luanda Outubro 2003

FAO. 2003. Review of agriculture sector and food security strategy and investment priority setting. Luanda, Angola. Project TCP/ANG/2907(A) (2003-2004). 43 p.

FAO/MINADER, Angola - Agricultural Recovery and Development Options Review (ARDOR), Report No. 96/116 TCP-ANG, 17 December 1996 (5 volumes).

FAO/MINADER, Angola – Agricultural Recovery and Development Options Review (ARDOR) – Final Report (Volume 1 of V Volumes), Report No. 96/116 TCP-ANG, 11 July 1997.

FAO/WFP. 2003. Special report. FAO/WFP crop and food supply assessment mission to Angola. 20 p.

FAO/WB Cooperative Work Program – Economic Sector Work Studies, Luanda 2004.

FEWSNET, Angola – Food Security Update, August and September 2003, December 2003 and January 2004, and January-February 2004.

FEWSNET, Vulnerability Analysis November 2002-May 2003 – National Overview, Luanda, June 2003.

Gelb, Alan et. al. “Oil Windfalls, Blessing or Curse?” Oxford University Press 1988.

GEPE/MINADER, Agricultura Angolana, Potencialidades, Estado Actual e Perspectivas de Desenvolvimento, Gabinete de Estudos, Planeamento e Estatística/ MINADER, Luanda, 2003.

Hodges, Tony, *Angola: Anatomy of an Oil State*, James Currey, Oxford (2nd edition), 2004.

IIA. 2003. Projecto de producao de semente básica. Luanda Angola. Ministério de Agricultura e Desenvolvimento Rural, Instituto de Investigação Agronômica. 43 p.

IMF, Angola: Selected Issues and Statistical Appendix, Country Report No. 03/292, September 2003.

IMF, IMF Concludes 2003 Article IV Consultation with Angola, Public Information Notice 03/114, September 10, 2003.

Kyle, Steven, The Angolan Macroeconomy, Sector Policy and the Agricultural Sector, Working Document No. 8, Agricultural Sector and Food Security Review Update (TCP/ANG/2907), January 2004.

Kyle, Steven, The Political Economy of Long Run Growth in Angola - Everyone Wants Oil and Diamonds but They Can Make Life Difficult” Department of Applied Economics and Management Working Paper No. 2002-07, April 2002.

Lele, U. “Agricultural Growth, the Domestic Policies, the External Environment, and Assistance to Africa: Lessons of a Quarter Century” MADIA Discussion Paper No. 1. World Bank 1989.

Maetz, Materne, Andrade, Filomena, Calegar, Geraldo, Chimuco, Francisco & Giovannoni, Marco, Como Garantir a Seguranca Alimentar Nacional durante o Período de Transicao da Dependencia da Assistencia Humanitaria, Documento de Trabalho No.10, Agricultural Sector and Food Security Review Update (TCP/ANG/2907), December 2003.

Mellor, John, The Role of Government, Civil Society, And the Private Sector in Rural Development – Realizing Angola’s Immense Potentials, , Abt Associates, Inc. (Paper Presented at the National Conference on Agriculture, Luanda, Angola, April 14-16, 2004).

Millar, A., Desenvolvimento da Agricultura Irrigada em Angola, Draft Working Document No. 15, Agricultural Sector and Food Security Review Update (TCP/ANG/2907), Luanda, March 2004

MINADER, Programas Multisectoriais em Curso 2003/04; Projectos em Execucao no Ambito do Programa Economico do GOA 2003/04, March 2004.

MINADER, Linhas Gerais de Orientacao do Programa Global do Sector Agrario para o ano agricola 2004/2005, Luanda, Setembro de 2003.

MINADER, Conclusoes e Recommendacoes – Workshop Nacional – Opcoes de Recuperacao e Desenvolvimento do Sector Agrario, Luanda, 6-8 de Maio 1997.

MINADER, Analise das Opcoes de Recuperacao e Desenvolvimento do Sector Agrario – Resumo do Relatorio Preliminar a ser discutido no “Workshop” Nacional, 23-25 de Abril de 1997.

MINADER/FAO. 1997. Agricultural recovery and development options review. Final report. Report No: 96/116 TCP-ANG.

Ministério da Agricultura e Desenvolvimento Rural – Monitoria da campanha agrícola 2002/2003. Luanda, Abril de 2003.

Ministerio de Comercio, Projecto Regulamento Sobre a Organizacao e Funcionamento dos Mercados Rurais, Documento 10.7, MINCO, 8-10 December 1999.

OCHA. 2003. 2002-2003 National agricultural campaign and preparation of the 2003 2004 campaign. Luanda, Angola. United Nations Office for the Coordination of Humanitarian Affairs. 3 p.

Perreira, Joao & Mateus, Sidonio, Sistemas de Producao em Angola, Documento de Trabalho No. 3, Agricultural Sector and Food Security Review Update (TCP/ANG/2907), December 2003.

Programa Nacional de Producao de Sementes(PNPS)-SENSE Julho/2003

República de Angola. 1999. Pauta de los direitos de importação e exportação da República de Angola. Luanda, Angola. Ministerio de Finanças, Direcção Nacional das Alfândegas. 413 p.

Rivera, William M. And Qamar, Kalim M, Krowder L. Van. Agricultural and rural extension worldwide – Options for institutional reform in the developing countries. FAO. Rome, 2001. 49 p.

Schiff, Maurice and Alberto Valdes “The Political Economy of Agricultural Pricing Policy: A Synthesis of the Economics in Developing Countries” World Bank 1992.

Telleria, Roberto e Monteiro, Isabel, O Sistema Financeiro de Credito Rural em Angola, Documento de Trabalho No. 9, Agricultural Sector and Food Security Review Update (TCP/ANG/2907) January 2004

Tickner, Vincent, Agriculture and Small-Scale Enterprises in Malanje Province, Angola, Malanje Economic Reactivation Programme (MERP), February 1997.

UNDP, A Descentralização em Angola, United Nations Development Programme, Luanda, March 2002.

UNICEF. 2003. MICS multiple indicator cluster survey. Luanda, Angola. UNICEF/ National Institute of Statistics. p 31.

Vilela, Duarte & Santana, Bernadete, Estrategia para Modernização da Pecuária em Angola, Documento de Trabalho No. 4, Agricultural Sector and Food Security Review Update (TCP/ANG/2907), December 2003.

Vilela, Mario, Desafios da Extensão em Produção e Comercialização Agrícola, Documento de Trabalho No.5, Agricultural Sector and Food Security Review Update (TCP/ANG/2907), December 2003.

World Bank, Transitional Support Strategy for the Republic of Angola, Report No. 25471-ANG, March 4, 2003.

NOTES

¹ This note (drawn from the FAO's sector program review) provides more details on the activities of the World Bank and the EC, the two largest potential donors for the agricultural sector. In the last ten years, aid has been oriented to humanitarian activities (food security, resettlement of IDP, food and tools kits to IDP). The flow of financial aid and the number of beneficiaries vary from year to year, depending on the absorption capacity, accessibility to remote areas and break of peace. The main areas of intervention include: food security (food aid, distribution of food and tools); emergency and rehabilitation of social services (health, education, water and drainage systems); support to resettlement of IDP; and institutional improvement.

During 1986-2000, EC allocated 700 million Euros on aid to Angola, to support emergency and rehabilitation, with emphasis on food aid (mainly after 1992). The rehabilitation had health, agriculture and rehabilitation of rural and urban infrastructures, as focal sectors. During 2001-2002, more than two thirds of the aid provided by EC was for humanitarian activities (food security, demining and social reinsertion of IDP), emergency and rehabilitation (health and agriculture).

In the context of the peace agreements of 4 April 2002 and through the Emergency Programme and Support to the Peace Process, the EC provided 30 millions Euros to be spent (Dec. 2002 – Dec. 2004) on health, nutrition, water and drainage systems (8.5 million Euros), education, protection and child reinsertion (5 million Euros), humanitarian demining (7 million Euros), resettlement of IDP (7 million Euros) and logistic of transport (1 million Euros). This programme has the objective of providing support to the most vulnerable resettled IDP. An important share of these resources is being channelled through the UN system (UNICEF, WHO, OCHA, FAO, ACNUR and WFP). The Programme provides also funds for institutional support through UNDP and the national institution for demining (CNIDAH) under the long-term Programme for National Humanitarian Demining. The expected beneficiaries of the Programme are 8 million people.

The Transition Programme for Support to the IDP (16.3 million Euros) started in the last quarter of 2002 and will end in November 2005, cover five provinces and has been implemented by eight international NGO's. The Programme will provide support for improvement of Health, water and drainage systems. In a long-term, it will continue implement actions of health support to handicapped people, victims of war and mines (14 million Euros) and rehabilitation of municipal health systems of central plan provinces of Benguela, Huambo, Bié and Huila – 25 million Euros). Moreover, measures to combat and prevent HIV/AIDS were included in all projects underway. Since the beginning of the Programme 9 hospitals and 68 health centres have been recovered. Around 1,350,000 people have received medical and nutritional support and 46 therapeutic and nutritional centres have been assisted. Food aid and protection have also benefited 223,500 and 800,000 people, respectively.

The Rehabilitation Support Programme (PAR) has been implemented in two phases. The first phase 2001-2002 with resources of 27.5 million Euros and the second phase, 2002-2004, with 27.5 million Euros. The Programme has incidence on rural areas, food security and revitalization of social services (health, education, water and drainage systems), technical assistance, demining, institutional support, capacity building and coordination.

For the current transition phase, there are 83 million Euros are still available through the European Development Fund (EDF). The Delegation of CE in Angola and the national authorities are preparing the proposals for the efficient utilization of the funds already available in EDF to socio-economic reinsertion of displaced and demobilised populations and rehabilitation of social services (health, education, water and drainage systems) and also secondary roads; demining; co-finance government programmes to support public institutions in collaboration with other donors, specially the World Bank. It is expected that the first proposals for financing be prepared until the end of 2003.

The most recent World Bank projects for Angola, financed by the International Development Association (IDA-WB), include a project (1998) to support the then expected return of IDP to their communities (Social Action Fund 1 (FAS1) of US\$ 33 million and FAS2 (2000), a successor project to the successful 1998 FAS1. In addition, the International Finance Corporation (IFC) approved support for a soap manufacturer in Angola (in 1998) and the Multilateral Guarantee Agency (MIGA) has issued four guarantees. In mid-1999, as a result of unstable economic conditions, the resumption of significant fighting, a shrinking portfolio and lack of conditions conducive to new lending, the Bank reduced its country Officer to a Liaison Officer and declined to replace a vacating Resident Representative.

WB activities for the next 12 months have been designed within the purview of the Transitional Support Strategy TSS), with the single exception of FAS2 - a community-driven development project of the type that would be appropriate in Angola's post-conflict context in any case. The TSS (Table A.5) is organized under three pillars: first, enhance the transparency, efficiency and credibility of public resources management; second expending service delivery to war-affected and other vulnerable groups; and third, preparing the ground for broad-based pro-poor economic growth.

² Angola - FAO/WP Cooperative Work Programme – Economic Sector Work Studies, 2004.

³ Data collection systems are extremely deficient, particularly outside of Luanda, making reported figures difficult to rely on. The government's statistical network is largely non-existent outside of major cities, with even the size of the population a subject of some debate. Oil production estimates are better known, though the disposition of oil receipts has been a major bone of contention between the government and international lending institutions. Allegations of huge diversions have been made but verification of these claims has been difficult. Recent moves toward more transparency are very welcome, but do little to improve historical information.

⁴ The experience of other post-conflict countries indicates that a strong growth rate can be expected during the process of resettlement and reactivation of subsistence production. Indeed, when a family's production starts from zero, as is the case with millions of *deslocados*, any amount of production at all will look large when stated in terms of growth rates. The more difficult task will be the period after resettlement and rehabilitation, when growth depends on the success of rural development policies more generally. In addition, as farmers move beyond subsistence production to selling marketed surplus in cities, the effects of exchange rate distortions and competing grain imports will also have a powerful effect on output growth and the extent to which they can successfully compete with imports.

⁵ There are signs of movement toward renewed stability already, with inflation this past year coming in at a little less than 76%, or a little more than half of the figure posted for 2002. The improvement is largely due to the government's avoidance of money creation for deficit finance purposes though the deficit itself amounted to about 10% of GDP, little changed from the 2002 figure. The government has used a combination of oil receipts and international borrowing to cover its expenses, and though this creates other problems, it has allowed the rate of inflation to be kept low when combined with the policy of using foreign exchange reserves to buy Kwanzas in order to sterilize large oil financed expenditures. It is hoped that inflation in 2004 can be kept to a level of 30%. Given the record of only 8% accumulated inflation during the first three months of the year, this goal would seem to be attainable.

There is still some way to go in enforcing fiscal control, though there has been progress there as well. The expenditures as executed still remain out of line with the budget as passed by the legislature. However, the government has made enormous progress in consolidating and unifying the reporting of government receipts and expenditures, so that the situation at the present time is markedly better than in the past. Nevertheless, though a far greater share of expenditures are now accounted for within the system, there remain some problems with keeping expenditures from growing beyond levels authorized.

Perhaps the biggest area of concern for donors has been that of transparency. Inability to account for hundreds of millions of dollars of oil receipts dominated multilateral and bilateral relationships, and led to a deterioration of relations in the recent past. However, the government has been moving toward

resolving this issue as well, and it has reportedly followed through on the plans made for auditing and accounting at Sonangol, the Banco Nacional de Angola, and the Treasury, which will be likely to result in a marked improvement in donor willingness to fund a broad range of development projects. As noted above, recent announcements regarding receipts from oil companies show good faith on the part of the government, and continuation of this new policy of transparency will greatly smooth relations with international organizations.

⁶ At the present time the government is financing the fiscal deficit largely with foreign exchange. Effectively this means using foreign exchange to buy Kwanzas in the open market with consequent dampening effect on inflation and the maintenance of an exchange rate substantially higher than would otherwise be the case. The natural reaction of most economists to this type of situation is that it is not sustainable - at some point the availability of foreign exchange to continue the policy will become limited, leading to a fall in the currency and a new policy regime. However, in the Angolan case the government will be receiving huge inflows of oil receipts starting this year as new production comes on line, meaning that this policy can be continued longer than would be the case in most other countries, though this is in some doubt given the large amount of oil backed debt which has effectively mortgaged much of production for the next several years.

The real question is whether this is the optimal use of foreign exchange reserves. It has been reported that in 2003 the government spent approximately \$2 billion out of a total GDP of \$11 billion supporting the Kwanza. This policy has continued in 2004 at a rate of \$250 million each month. A better outcome could be achieved with a reduction of the government deficit and consequent reduction in the need to use exchange reserves to finance monetary intervention. This is a key policy change in terms of the agricultural sector since continued real exchange rate appreciation will pose serious problems for domestic producers.

⁷ See World Bank Pink Sheets, f.o.b. price at US Gulf Ports

⁸ Based on average freight rate for grain imports to Angola reported by World Food Program for shipments in non-U.S. flag vessels from U.S. Gulf ports.

⁹ This adds the \$60/MT ex-Lobito trucking cost to the \$184 ex-port landed cost, and compares it with the reported "off truck" price in Huambo of \$190/MT. It should be noted that this "off-truck" price was measured as an average of prices in the vicinity of Caala, which could be somewhat lower than the price in Huambo city itself.

¹⁰ Indeed, the freight cost of \$60 was raised to \$78 in May of 2004 due to mine problems. These, together with a near total lack of road maintenance greatly contribute to the high price for transport at the present time.

¹¹ This section draws on the Economic and Sector Work performed in Angola in the Spring of 2004

¹² Investment in primary and secondary roads is under the mandate of the Ministry of Public Works, but responsibility for tertiary roads is less clear. Mechanagro, a parastatal corporation under MINADER, should in theory have a major responsibility for tertiary roads in rural areas, but lacks both financial and human resources for this role.

¹³ The reasons for this are multiple but we can point to several important factors. First, and most obvious, is the close identification of the MPLA with Soviet bloc countries during the long years of conflict with UNITA. The support received by the government was not just military, but also included many advisors and a significant educational program in which young Angolans were sent to Cuba, Russia, and other eastern bloc countries for education. A second factor is the relative linguistic isolation of many Angolan elites, who speak only Portuguese and have not been able to read much of the debate over economic policy that has gone on in the past quarter century. Finally, it is also the case that the MPLA decisively won the war against UNITA. They did so without a wholesale liberalization or reform of their system and hence have not been brought face to face with any imperative that would require them to change it. All of these factors contribute to a world view which focuses on command and control and which equates government involvement with government direction of activities.

¹⁴ Jornal de Angola May 17, 2004 article entitled “Mecanagro pretende 400 tractores para cobrir todo o pais”.

¹⁵ See “Land Tenure Study” World Bank Economic Sector Work, Angola, 20004.

¹⁶ The example of Kenya is quite instructive in this regard. In Kenya, coffee and tea are not large farm crops. Rather, they are produced by small to medium farmers who sell through an association to the export market. There is little about the technology of growing coffee that requires it to be grown on large plantations. It is a very labor intensive crop which requires careful cultivation and which is very suitable for small farmers to grow and which can be marketed individually or through cooperatives. Indeed, small farmers grow it in many parts of Latin America, as well as in Africa. In Angola, given the current near zero state of coffee production, there is much to recommend promoting it as a smallholder crop rather than as a plantation crop.

¹⁷ ‘O Sistema Financeiro e de Crédito Rural em Angola’. Robert Telleria and Isabel Monteiro, Working Paper No.9, TCP/ANG/2907, FAO. January 2004.

¹⁸ BCI was programmed for privatization in 2003, but this did not occur.

¹⁹ Reported by World Vision staff.

²⁰ See “Irrigation and Water Management Study” Economic Sector Work, World Bank Angola, 2004

²¹ In line with this, a useful categorization is given in Tickner, “Marketing Chain and Supply Study”

World Bank Economic and Sector Work 2004:

- a) Those areas with current close proximity to large potential markets or from which produce can easily be exported. Currently such areas are to be found in parts of the provinces of Luanda, Bengo, Benguela, Cabinda (because of oil industry), and Lunda Norte/Lunda Sul (because of diamonds).
- b) Those areas in which access to markets is still difficult, and only likely to be economically viable within a few years. Currently such areas include parts of Uige, Malange, Kwanza Norte, Zaire, Kwanza Sul, Huambo, Bie and Huila.
- c) Those areas where only one or two individual commodities (e.g. cattle) are likely to be economically viable. Currently such areas are to be found in parts of the provinces of Kunene and Namibe.
- d) Those areas where marketing is likely to remain a problem for the foreseeable future, because they are so remote from major markets. Currently such areas are to be found in parts of the provinces of Malange, Lunda Sul, Moxico, Bie and Kwando Kubango.

The first two categories represent the areas likeliest to result in positive returns in the time frame envisioned by, e.g. World Bank projects, but even within these categories there are vast differences in the actual strategies that can be envisioned. For example, the mainly maize based systems of the central provinces require different interventions than do the wetter cassava and other crop based systems of Uige and Zaire.

²² This section draws on Economic and Sector Work performed by the FAO in 2004.

²³ Any doubt of these statements will be dispelled by reading the history of the resource curse in low income countries. An excellent explication of the problem and compendium of country experiences can be found in Alan Gelb, ed. *Oil Windfalls – Blessing or Curse?*, World Bank, 1989.

²⁴ Of particular interest is the experience of Mozambique with the Proagri program. This multi-donor sector wide project succeeded in channeling donor funds through a single mechanism in the agriculture ministry but was less successful (in its first years) in getting this translated into real increases at provincial and lower levels. Concerted effort by donors and counterparts succeeded in changing this pattern by the end of the first five-year phase but it is notable that even this has not yet resulted in the hoped-for increases in services and results at the farm level.

²⁵ As for many other data, however, conflicting figures exist for MINADER headquarters staffing, with an estimate of 496 also being provided.

²⁶ See Oscar Monteiro and Antonio Caetano de Sousa “Decentralization in Angola” in *A Descentralizacao em Angola – Texto de Analise e Legislacao de base*, PNUD 2002. In particular, see page 106: “The number and functions of the provincial directorates were not defined at the time the law was adopted” and page 107 “... the law decree no. 17/99 dated 29th October, extinguished the Provincial Delegations, excepting the

.... Ministries of Interior, Justice and Finance. Directorates are parts of the Provincial governments, reporting to the Governor, while Delegations are depend on and report to line Ministers.

²⁷ Regarding financial flows, see Jose Brakarz, Paulo Henrique Rodrigues e Francisco Bruno Soares “Descentralizacao e Desconcentracao em Angola” in *A Descentralizacao em Angola – Texto de Analise e Legislacao de base*, PNUD 2002. In particular, note page 156: “...nao existe diferenciacao entre as finanças dos governos central e locais” and “ Na actualidade, as receitas arrecadadas por quaisquer entidades governamentais sao recolhidas a uma conta unica, no Banco Nacional de Angola , a integrar as receitas gerais do Estado”.

²⁸ To take just one example, there are well adapted and disease resistant varieties of potatoes, a major cash crop in the highlands, that yield half as much per hectare as readily available improved varieties from the international research centers. Incorporation of disease resistance characteristics in higher yielding varieties is a very basic plant breeding task that could be easily achieved at a very low cost.

²⁹ One response to this problem could be the imposition of tariffs on grain imports. While this is usually anathema to economists (and certainly to the author of this study) it is important to weigh the costs and benefits of allowing agriculture to stagnate. Nigeria is an instructive example in this connection, where a vibrant agricultural economy was destroyed, fueling large rural-urban migrations, chronic food imports and large social dislocations. Unlike Angola, the majority of the agricultural population did not suffer the dislocations and physical destruction of war – their problems were entirely economic in nature. In Angola the costs of these social dislocations should not be minimized given that a large portion of the agricultural population are former UNITA supporters. A return to armed conflict, though not likely at the present, is something that would be so costly as to swamp any cost-benefit calculation and accordingly should be avoided at all costs.

To be clear, this study is NOT recommending the erection of tariff barriers. It would be much preferred to avoid the real appreciation that is causing the problem in the first place. However, it should be recognized that if appreciation does continue, agricultural development projects will not succeed and pressure for protectionist measures will grow. Given the economic and social realities of the Angolan situation, it is not obvious that these pressures will be resisted nor is it entirely obvious that the costs outweigh the benefits.

³⁰ Tickner, Vincent, “Marketing and Supply Chain Study” 2004, World Bank.

OTHER A.E.M. WORKING PAPERS

WP No	Title	Fee (if applicable)	Author(s)
2005-24	New Directions in Development Economics: Theory or Empirics? A Symposium in Economic and Political Weekly		Banerjee, A., Bardhan, P., Basu, K., Kanbur, R., Mookherjee
2005-23	Spatial Inequality and Development: Overview of UNU-WIDER Project		Kanbur, R. and Venables, A.
2005-22	Oil and Politics in Angola		Kyle, S.
2005-21	A Framework for Scaling Up Poverty Reduction, With Illustrations from South Asia		Devarajan, S. and R. Kanbur
2005-20	Membership Based Organizing of Poor Women: Reflections After an Exposure and Dialogue Program with SEWA in Gujarat, India, January 2005		Editors: Chen, M., Jhabvala, R., Kanbur, R., Mirani, N., Osner, K. and C. Richards
2005-19	Oil Revenue, the Real Exchange Rate and Sectoral Distortion in Angola		Kyle, S.
2005-18	Minimum Wages and Poverty		Fields, G. and R. Kanbur
2005-17	Characterizing Distributions of Class III Milk Prices; Implications for Risk Management		Wang, D. and W. Tomek
2005-16	The Development of Development Thinking		Kanbur, R.
2005-15	Evolution of the Stock of Red Seabream in the Strait of Gibraltar: DEA-Malmquist Index and Stochastic Frontier Analysis		Espino, D., Fried, H., del Hoyo, J. and I. Tauer
2005-14	Examining the Effects of Deregulation on Retail Electricity Prices		Taber, J., Chapman, D. and T. Mount
2005-13	Turning a Blind Eye: Costly Enforcement, Credible Commitment and Minimum Wage Laws		Basu, A., Chau, N. and R. Kanbur

Paper copies are being replaced by electronic Portable Document Files (PDFs). To request PDFs of AEM publications, write to (be sure to include your e-mail address): Publications, Department of Applied Economics and Management, Warren Hall, Cornell University, Ithaca, NY 14853-7801. If a fee is indicated, please include a check or money order made payable to Cornell University for the amount of your purchase. Visit our Web site (<http://aem.cornell.edu/research/wp.htm>) for a more complete list of recent bulletins.