Institutional constraints to small farmer development in Southern Africa
Institutional constraints to small farmer development in Southern Africa

edited by:

Ajuruchukwu Obi
Preface

The Southern Africa region has experienced more than its fair share of problems in recent years. Just when it seemed that the hardships wrought by the devastating cycle of droughts and floods of 2000 to 2002 were a thing of the past, other problems emerged. At one level, there have been the weak and often erratic governance mechanisms and political crises in some countries of the region, leading to severe disruptions in agricultural production to the point that supplies and markets have virtually disappeared. At another level, socio-cultural rigidities have often militated against the adoption of efficient farming practices, resulting in sub-optimal choices that lock smallholders into a low equilibrium trap. In the face of the disappearing supplies and missing markets, these have engendered hyper-inflationary trends of a magnitude unknown anywhere else in the world. But in the midst of all this apparent dreariness, cases are emerging from which immense lessons can be drawn.

This book assembles a collection of research papers based on studies completed in 2008 and 2009 in Southern Africa that examine various dimensions of the problem. Despite its title, the book does not exclusively subscribe to the notion of institutions as constraints in the sense that all they merely perform a restrictive function on economic behaviour. The various contributions to this book cover the spectrum of viewpoints about what institutions constitute and the multiple roles they also play in conditioning economic behaviour by modifying the structure of incentives and enhancing deeper understanding of the workings of the processes that determine economic activity. These perspectives are taken in examining the institutional environment in which small farmers operate in the region and how they are going about either dealing/cop ing with them (in the case of constraints), or taking advantage of them (in the case of the opportunities afforded by new incentive structures or information).

The papers draw from these diverse and polar experiences and present some theoretical and practical insights that should form the basis for more in-depth, country-level, sector-specific analyses, focusing mainly on citrus, horticultures, cotton and livestock. The thematic issues of income inequality, land reform, value chain governance and chain choice, and natural resource management are covered in this book and expected to hold strong interest for a wide constituency, including researchers, development practitioners, rural animators, and policy makers.

The bulk of the chapters in this book have been based on a study funded under the Southern African Development Community’s Fund for Innovative Regional Collaborative Projects (FIRCOP). In late 2003, SADC called for concept notes and received a total of 104 out of which 35 were selected in August 2004. The 35 researchers and groups were contacted to submit full proposals out of which 10 were short-listed for a final selection process that resulted in the approval of 6 projects for funding in 2006. The elaborate review process
and the efforts of the anonymous reviewers over an unprecedented period of three years are acknowledged.

Subsequently, the study resulted in a number of dissertations leading to the award of Masters degrees to several students. Eight external examiners and four internal examiners were involved in the formal examination of the original dissertations. In addition, two examiners were involved in the examination of the Swaziland maize market study. The chapter based on that study is the source of three separate papers presented, after double blind reviews, at the International Food and Agri-Business Management Association conference in Chicago in 2005, the annual conference of the Agricultural Economics Association of South Africa in 2005, and the International Association of Agricultural Economists conference in Brisbane, Australia in 2006.

After the chapters were assembled into a manuscript for the publication of the present book, an initial workshop was held at which researchers and practitioners drawn from numerous Universities and research and development organizations were represented. This workshop allowed participants to make major inputs that led to the restructuring of the outline as well as modifications to the content. Two other peer reviewers, namely Professor Noble Jackson Nweze of the Department of Agricultural Economics of the University of Nigeria, and Dr Godfrey Kundhlande of the Department of Agricultural Economics of the University of the Free State, Bloemfontein, South Africa, received the complete manuscript and provided detailed comments which were incorporated during January-June 2010. All these contributions are gratefully acknowledged.

Ajuruchukwu Obi
Table of contents

Preface 5

Abbreviations and acronyms 13

Exchange rates for programme countries 16

Part I – Background and issues on the role of institutions in smallholder development in Southern Africa

1. Investigating institutional constraints to smallholder development: the issues and antecedents 19
   Ajuruchukwu Obi and Tebogo Seleka
   Abstract 19
   1.1 Introduction 19
   1.2 The problem 27
   1.3 Plan of the book 33
   References 35

Part II – Rural livelihood strategies and current circumstances of the small farmer in South Africa

2. Rural household sources of income, livelihoods strategies and institutional constraints in different commodity contexts 41
   Simbarashe Ndbleve, Bridget Jari, Lovemore Musemwa and Ajuruchukwu Obi
   Abstract 41
   2.1 Introduction and problem context 41
   2.2 Household sources of income 43
   2.3 Rural households’ choice of activities 45
   2.4 Determinants of household activity choice and diversification 48
   2.5 Household income by source 50
   2.6 Income distribution 52
   2.7 Institutional factors in agricultural marketing 53
   2.8 The New Institutional Economics (NIE) 54
   2.9 Marketing challenges faced by the Nguni project beneficiaries 57
   2.10 Existing market opportunities for Nguni cattle 60
   2.11 Potential markets for other Nguni cattle products 62
   References 64
3. Determinants of household activity choice, rural income strategies and diversification
   Simbarashe Ndhleve and Ajuruchukwu Obi
   Abstract
    3.1 Introduction and problem context
    3.2 Rural sources of income
    3.3 Model structure and data
    3.4 Physical settings
    3.5 Socio-economic activities
    3.6 Results and discussions
    3.7 Conclusion and policy implications
   References

4. Rural income dynamics in post-apartheid South Africa: implications for reduction of poverty and income inequality
   Ajuruchukwu Obi and Simbarashe Ndhleve
   Abstract
    4.1 Introduction
    4.2 Study area
    4.3 Results and discussions
    4.4 Conclusion and policy implications
   References

Part III – Socio-economic and commodity marketing factors among small farmers in South Africa

5. Influence of institutional factors on smallholder farmers’ marketing channel choices
   Bridget Jari, Gavin Fraser and Ajuruchukwu Obi
   Abstract
    5.1 Introduction
    5.2 The project area
    5.3 Topography and climate
    5.4 Socio-economic factors
    5.5 The methodology
    5.6 Specification of the model
    5.7 Empirical results
    5.8 Summary
   References
Part IV – Marketing constraints and opportunities in specific commodity lines

6. Marketing challenges and opportunities faced by the Nguni cattle project beneficiaries in the Eastern Cape Province of South Africa

Lovemore Musemwa and Abyssinia Mushunje

Abstract

6.1 Introduction

6.2 Overview of the Nguni cattle project

6.3 Qualities, characteristics and traits of Nguni cattle

6.4 Contribution of Nguni cattle to communal livelihoods

6.5 Variables used in the analysis

6.6 Results of association tests

6.7 Results of the logistic regression

6.8 Variation of market opportunities across municipalities

6.9 Evaluation of model performance

6.10 Conclusion

References

7. Welfare and incentive effects of possible changes in the regulatory environment of the maize market in Swaziland

Ajuruchukwu Obi and Nkosazana N. Mashinini

Abstract

7.1 Introduction

7.2 Objectives

7.3 The country socio-economic context and the place of maize

7.4 Summary, conclusions and way forward for Swaziland’s maize industry

Acknowledgement

References

8. Obstacles to the profitable production and marketing of horticulture products in Lesotho: an offset-constrained probit modelling of farmers’ perception

Ajuruchukwu Obi and Litsoanelo Mphahama

Abstract

8.1 Introduction and problem context

8.2 Study area

8.3 The data

8.4 The model and analytical framework

8.5 Results and discussion

8.6 Conclusion

References
Part V – Institutional issues in natural resource management and implications for smallholder development in Southern Africa

9. The land question in smallholder development in South Africa

Ajuruchukwu Obi

Abstract
9.1 Introduction
9.2 Land, economics and politics
9.3 Land in South African economy and politics
9.4 Agricultural taxation and the rural land tax debate
References

10. Institutional factors in natural resource management in the Eastern Cape Province of South Africa

Mafabia Mokhablane and Ajuruchukwu Obi

Abstract
10.1 Background
10.2 Problem statement
10.3 Land degradation in the Eastern Cape
10.4 Existing institutional factors for natural resource management
10.5 Effects of institutional factors on natural resource management
10.6 The geographical context, experiment and findings
10.7 Justification of Institutional Analysis and Development (IAD) framework
10.8 Institutional arrangements and institutional performance
10.9 Expected results
10.10 Conclusion and policy implications
References

Part VI – Alternative trade and support arrangements to enhance livelihoods and welfare of small farmers

11. Recent changes in markets and market relationships and lessons for the design of effective support programmes

Binganidzo Muchara and Ajuruchukwu Obi

Abstract
11.1 Overview of agricultural commodity markets in developing countries
11.2 Maize commodity marketing and the emergence of informal markets in Zimbabwe
11.3 Impact of FTLRP on agricultural input markets
11.4 The livestock production and marketing in Zimbabwe
11.5 The role of local authorities in livestock markets 287
11.6 Policy focus 294
References 295

12. Livelihoods, institutions and the small farmer 297

Ajuruchukwu Obi

Abstract 297
12.1 Introduction 297
12.2 Do institutions still matter? 298
12.3 How much is too much? 302
12.4 How big is the problem and where are we towards addressing it? 302
12.5 Rural livelihoods dynamics 305
12.6 Dynamics of marketing channel choice 305
12.7 Institutional innovations in research and community outreach 306
12.8 Impact of trade regulation 306
12.9 Land and natural resource management 307
12.10 Changes in markets and marketing under institutional pressures 308
12.11 Future directions for institutional analysis 309
References 312

Appendix - The methodologies of the studies 315
A.1 Introduction 315
A.2 Model for baseline-related study 315
A.3 Models for the component studies assessing institutional constraints 318
A.4 Methods for the study on welfare and incentive effects of maize market deregulation in Swaziland 320
References 336

About the contributors 339

Keyword index 341

Institutional constraints to small farmer development in Southern Africa 11
Abbreviations and acronyms

A1 FARMERS small scale farmers who benefitted in Zimbabwe’s Fast Track Land Reform Programme (2000-2009)
A2 FARMERS medium/large-scale commercial farmers who benefitted in Zimbabwe’s Fast Track Land Reform Programme (2000-2009)
ADMARC Agricultural Development and Marketing Corporation
AGOA Africa Growth and Opportunity Act (of the United States Government)
AGRI-BEE Black Economic Empowerment in Agriculture
AGRITEX Agricultural Research and Extension Services (of Zimbabwe).
ANC African National Congress
ANOVA Analysis of Variance
ARAP Accelerated Rainfed Arable Programme (of Botswana)
ARC Agricultural Research Council
ARD Agricultural Research for Development
BATAT Broadening Access to Agriculture Thrust
BEE Black Economic Empowerment
CAADP Comprehensive Africa Agricultural Development Programme
CEA Comparative Economic Advantage
CGIAR Consultative Group on International Agricultural Research
CIA Central Intelligence Agency (of the United States of America)
CLARA Communal Land Rights Act
COMESA Common Market for Eastern and Southern Africa
COP15 Copenhagen Conference on Climate Change
CPA Communal Property Association
CPI Consumer Price Index
CPR Communal Property Resources
CSC Cold Storage Company
CTA The Technical Centre for Agricultural and Rural Cooperation for the Africa, Caribbean and Pacific Group of States and the European Community
DBSA Development Bank of Southern Africa
DLA/DoA Department of Land Affairs/Department of Agriculture
DRC Domestic Resource Costs
ECDC Eastern Cape Development Corporation
EIU Economist Intelligence Unit
ESTA Extension of Security of Tenure Act
FANRPAN Food, Agriculture and Natural Resources Policy Analysis Network
FAO Food and Agriculture Organization of the United Nations
FAOSTAT FAO’s Statistical Database
FDI Foreign Domestic Investment
FIRCOP Fund for Innovative Regional Collaborative Projects
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTLRP</td>
<td>Fast Track Land Reform Programme</td>
<td></td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
<td></td>
</tr>
<tr>
<td>GMB</td>
<td>Grain Marketing Board</td>
<td></td>
</tr>
<tr>
<td>GOL</td>
<td>Government of Lesotho</td>
<td></td>
</tr>
<tr>
<td>GOZ</td>
<td>Government of Zimbabwe</td>
<td></td>
</tr>
<tr>
<td>HIPC</td>
<td>Heavily Indebted Poor Countries</td>
<td></td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>Human Immune Deficiency Virus/Acquired Immune Deficiency Syndrome</td>
<td></td>
</tr>
<tr>
<td>IAD</td>
<td>Institutional Analysis for Development</td>
<td></td>
</tr>
<tr>
<td>ICLARM</td>
<td>International Center for Living Aquatic Resources Management (nowadays WorldFish Center)</td>
<td></td>
</tr>
<tr>
<td>ICRA</td>
<td>International Centre for development-oriented Research in Agriculture</td>
<td></td>
</tr>
<tr>
<td>IDC</td>
<td>Industrial Development Centre</td>
<td></td>
</tr>
<tr>
<td>IES</td>
<td>Income and Expenditure Survey</td>
<td></td>
</tr>
<tr>
<td>IFPRI</td>
<td>International Food Policy Research Institute</td>
<td></td>
</tr>
<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
<td></td>
</tr>
<tr>
<td>IRIN</td>
<td>Integrated Regional Information Networks</td>
<td></td>
</tr>
<tr>
<td>LHWP</td>
<td>Lesotho Highlands Water Project</td>
<td></td>
</tr>
<tr>
<td>LPM</td>
<td>Landless Peoples’ Movement</td>
<td></td>
</tr>
<tr>
<td>LRAD</td>
<td>Land Redistribution for Agricultural Development</td>
<td></td>
</tr>
<tr>
<td>LSCF</td>
<td>Large Scale Commercial Farms</td>
<td></td>
</tr>
<tr>
<td>MDG</td>
<td>Millennium Development Goals</td>
<td></td>
</tr>
<tr>
<td>MMIP</td>
<td>Maize Marketing Improvement Programme</td>
<td></td>
</tr>
<tr>
<td>MOAC</td>
<td>Ministry of Agriculture and Cooperatives</td>
<td></td>
</tr>
<tr>
<td>NAFU</td>
<td>National African Farmers’ Union</td>
<td></td>
</tr>
<tr>
<td>NAMBOARD</td>
<td>National Agricultural Marketing Board</td>
<td></td>
</tr>
<tr>
<td>NATO</td>
<td>North-Atlantic Treaty Organization</td>
<td></td>
</tr>
<tr>
<td>NBER</td>
<td>National Bureau of Economic Research</td>
<td></td>
</tr>
<tr>
<td>NDA</td>
<td>National Development Agency</td>
<td></td>
</tr>
<tr>
<td>NEPAD</td>
<td>New Partnership for Africa’s Development</td>
<td></td>
</tr>
<tr>
<td>NERPO</td>
<td>National Emergent Red Meat Producers Organization</td>
<td></td>
</tr>
<tr>
<td>NEWU</td>
<td>National Early Warning Unit</td>
<td></td>
</tr>
<tr>
<td>NFE</td>
<td>Non Farm Employment</td>
<td></td>
</tr>
<tr>
<td>NGO</td>
<td>Non-Governmental Organization</td>
<td></td>
</tr>
<tr>
<td>NIE</td>
<td>New Institutional Economics</td>
<td></td>
</tr>
<tr>
<td>NMC</td>
<td>National Marketing Council</td>
<td></td>
</tr>
<tr>
<td>NRM</td>
<td>Natural Resources Management</td>
<td></td>
</tr>
<tr>
<td>OLS</td>
<td>Ordinary Least Squares</td>
<td></td>
</tr>
<tr>
<td>PAM</td>
<td>Policy Analysis Matrix</td>
<td></td>
</tr>
<tr>
<td>RDP</td>
<td>Reconstruction and Development Programme</td>
<td></td>
</tr>
<tr>
<td>RSA</td>
<td>Republic of South Africa</td>
<td></td>
</tr>
<tr>
<td>SACU</td>
<td>Southern African Customs Union</td>
<td></td>
</tr>
</tbody>
</table>
Exchange rates for programme countries

South Africa

US$/R

<table>
<thead>
<tr>
<th>Year</th>
<th>Rand amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>8.00</td>
</tr>
<tr>
<td>2004</td>
<td>6.33</td>
</tr>
<tr>
<td>2005</td>
<td>6.62</td>
</tr>
<tr>
<td>2006</td>
<td>7.29</td>
</tr>
<tr>
<td>2007</td>
<td>7.18</td>
</tr>
<tr>
<td>2008</td>
<td>7.90</td>
</tr>
<tr>
<td>2009</td>
<td>7.91</td>
</tr>
</tbody>
</table>

1 Rates as established on 1st January of each year.

Swaziland

1 Swaziland Lilangeni (SZL) = R 0.9714

Lesotho

1 Lesotho Loti = R 1.00

Zimbabwe

US$/ZIM$

<table>
<thead>
<tr>
<th>Year</th>
<th>ZIM$ amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>57.15</td>
</tr>
<tr>
<td>2004</td>
<td>818.52</td>
</tr>
<tr>
<td>2005</td>
<td>5,600.1</td>
</tr>
<tr>
<td>2006</td>
<td>82,902</td>
</tr>
<tr>
<td>2007</td>
<td>258.92</td>
</tr>
<tr>
<td>2008</td>
<td>30,475.3</td>
</tr>
<tr>
<td>2009</td>
<td>4,066,342</td>
</tr>
<tr>
<td>2010</td>
<td>357.75</td>
</tr>
</tbody>
</table>

1 Rates as established on 1st January of each year.
Part I
Background and issues on the role of institutions in smallholder development in Southern Africa
1. Investigating institutional constraints to smallholder development: the issues and antecedents

Ajuruchukwu Obi and Tebogo Seleka

Abstract

Smallholder farming in Southern Africa has been on the decline in recent years as a result of a combination of institutional, climatic and macro-economic constraints. This has led to some of the worst food and humanitarian crisis in recent years, culminating in drastic food shortages and famines and deepening poverty. Governments and the development community are therefore concerned about the current and potential consequences of this state-of-affairs and are exploring ways and means to reverse the situation. There is increasing awareness about the role of institutions in smallholder development in the region and elsewhere on the continent. But consensus as to what specific institutions are crucial or even how they exert their influence has not yet been achieved despite a considerable amount of theoretical information now available on the subject. This chapter begins the task of defining the broad outlines of a more focused study on the role of institutions in small farmer situations in Southern Africa and proposes an analytical framework consolidated from a wide range of expert views and opinions. Brief descriptions of the diverse studies that fit that framework are provided to attempt to contribute to a debate on the feasible procedures for undertaking a comprehensive analysis of the institutional constraints faced by the small farmer in relation to market access and exploring the competitiveness of the small-scale agriculture in the region.

1.1 Introduction

The initial case for investigating the institutional constraints to smallholder development was pivoted on the reality that smallholder farming in Southern Africa was going through one of its toughest times in history. The scale of the problem was virtually unknown in contemporary experience. The conviction drew largely from literature as well as practical experience with the development terrain in the region as the transition into the new Millennium began. In June, 2001, a joint UN Mission to Lesotho reported a decline in the cereal production in the order of 55% below previous year results and 60% below average results for the 5 years preceding the mission (Joint UN Mission, 2001). Heavy rains and other unfavourable weather conditions coinciding with the planting and harvesting of both winter and summer crops in 2001, severely dislocated the sector’s investment profile and created unprecedented deficits as most fields were uncultivated and most crops could not be harvested. By 2002, this situation had placed about 444,800 persons in at least 3 districts...
Institutional constraints to small farmer development in Southern Africa

Ajuruchukwu Obi and Tebogo Seleka

on the verge of starvation (The Economist, 2002). In August 2003, similar situations were reported in Tanzania, Malawi, Swaziland, Mozambique, Zimbabwe, etc. (WFP, 2003).

The region’s development prospects are also hampered by a number of macroeconomic constraints, including low foreign direct investment (FDI), low savings rates in the region of 17%, and a double-digit inflation in nine member states (Anonymous, 2003). A heavy debt burden, with as many as seven countries participating in the Heavily Indebted Poor Countries (HIPC) Initiative, completes this highly desperate picture (Anonymous, 2003). On top of all these, the HIV/AIDS pandemic began ravaging the region to the point that the human capacity to implement the most basic tasks on farms became compromised. When people cannot even afford the simple tasks of sowing seeds or harvesting crops to feed starving households, nothing can be more desperate. In his book *The End of Poverty: How we can make it happen in our lifetime*, Jeffrey Sachs’ presents what he called a ‘Global Family Portrait’ that sketched the scene in a Malawian village that had lost all its able-bodied young men who, if they had lived, ‘could have built small-scale water harvesting units on rooftops...’ (Sachs, 2005). This picture obviously has more than a familiar ring to anybody who has been involved in development in the region.

At both regional and continental levels, African leaders then began committing to an expansion of investment in agriculture. The African political leadership meeting in Maputo in its second summit in July 2003, mandated member states to ensure a minimum allocation of 10% to agriculture within five years in order to accelerate growth to at least 6% per annum, which was considered sufficient to effectively address poverty reduction goals on the continent (African Union, 2003). The Comprehensive Africa Agriculture Development program (CAADP) was established at that summit as the means by which the vision of the New Economic Programme for Africa’s Development (NEPAD), of redefining African Agriculture by accelerating economic growth, minimizing poverty, and enhancing food security, could be achieved (InWent/IFPRI/NEPAD/CTA, 2003).

The leaders were undoubtedly convinced that potential exists for African countries to expand agricultural output and turn the sector into a profitable one. For instance, in the late 1990s, the United States Agency of International Development (USAID) commissioned several studies to assess the Economic Comparative Advantage (CEA) of Southern African countries in agricultural production. The studies concluded that many of these countries, including Tanzania, Malawi, and Zimbabwe, possess economic comparative advantages in a wide variety of agricultural products whose production would significantly and positively impact on both farmer and national welfare (Nakhumwa et al., 1999; Sukume et al., 2000).

The foregoing clearly suggests that there is strong political commitment for small farmer development at both the national and regional levels. It is also clear that policy makers in the region have come to the realization that alternative policies that ignore small farmer
1. Investigating institutional constraints to smallholder development

development are not working. In the light of these facts, the question one must ask is why are countries in the region not taking advantage of the available opportunities to expand output and enhance market access (Van Schalkwyk and Jooste, 2002). In the words of the Executive Secretary of the SADC (2003), ‘...it is a question of management’. But he recognizes that the question goes deeper than that and adds; ‘...we are looking at irrigation... at other issues, such as agrarian reform, how we can bring extension services to the rural areas, how we can use information technology...’ (Anonymous, 2003). A study conducted in Lesotho (Van Schalkwyk et al., 2002) identified numerous technical, managerial, and institutional factors that hampered the success of the government-driven agricultural production programmes in the country.

These views go to the heart of the arguments that proponents of the New Institutional Economics (NIE) have been making for sometime now. As soon as it became clear that Adam Smith’s reference to the ‘invisible hand’ idea never meant that a selfish, mindless, emotionless and value-free mechanism exists for allocating resources to meet the productive ends of society, economists became even more single-minded in advancing the notion of the primacy of institutions. According to North (1992), the efficient markets that are predicted by the neo-classical assumption of instrumental rationality are not achievable in reality because of the numerous shortcomings in the economic system. For instance, the induced innovation model that assumes perfect markets for factors and products, fails to consider situations where prices do not convey all the information needed to decide between alternatives courses of action. The model also assumes that all economic agents in a transaction face the same prices, which would mean that transactions are cost-free and asset distribution would have no effect on efficient allocation of resources, among other conveniences. But nothing can be farther from the truth.

Everybody from North (1992) to Dequech (2002) and Frank (2009), doubts that we are close to a definitive theory of institutions that provides the final answers to these questions. But it is not debatable that transactions involve costs which can often be so high that they constitute veritable obstacles to production and exchange. These transaction costs embrace elements as diverse as the costs of adjustment, information, measuring attributes, and negotiating, monitoring, and enforcing contracts. Human beings are frequently constrained by incomplete information as well as the limited mental capacity for processing whatever information is available (North, 1992). Attempts to overcome these shortcomings impose considerable costs on economic agents. As well, since different economic agents face different prices, there is a tendency for some people to take advantage of others, again due to differential access to information about current and prospective costs and prices, a phenomenon that Akerlof (1970) exploited and elaborated into the sub-discipline of information asymmetries. Information about the possibilities open to human beings to better their lives is never perfect and they have to act often on the basis of hunches and gut feelings which are presented under the more dignified caption of ‘perceptions’. 
Externalities are another reason that efficient markets do not automatically materialize from the actions of economic agents; benefits and costs of production, marketing and consumption activities accruing to other than those directly responsible for the activities (Frank, 1994). Economists believe that dealing with these problems through collective action is the basis for the evolution of institutions. In turn, institutions contribute to growth in output in agriculture by altering the incentives, rights to use of available productive resources, and knowledge and skills to use what is available or develop new ways and means to attain the goals of economic activity (Eicher and Staatz, 1984; North, 1992). The diverse actions and arrangements that produce the foregoing outcomes, which can broadly be described as coordinating and facilitating actions, can also be included as part of these institutions to obtain what Eicher (1999) describes as ‘a good institutional environment’. All these elements, be they formal or informal, which modify the incentive structure, set the rules of engagement in respect to resource use and human interactions, and guarantee some measure of predictability in the system by removing uncertainties, constitute institutions as North (2003) observes. In the way North (2003) has elaborated the concept, institutions embrace the rules and norms that regulate human actions and the arrangements in place to ensure compliance as well as the mechanisms in place to facilitate access to productive resources. A more formal discussion on the link between human actions and institutional development is taken up later in Chapter 2 of this volume. Those mechanisms that facilitate compliance with formal rules and informal norms are what North (2003) identified as enforcement characteristics which are so ubiquitous they embrace almost every aspect of economic, political and social life. Figure 1.1 presents, on the basis of work done by Norton et al. (2006), an analysis of these institutional variables implicated in farming systems performance.

In the views of Norton et al. (2006), institutions and the human factor interact to determine the farming system. The implication is that these factors are also involved in system performance, as noted by North (1990, 1992, 2003). If formal rules and informal norms recognize and imbue individuals with property rights in some productive resources but they lack sufficient information to efficiently utilize the resources, performance is affected negatively. Information asymmetry in the way George Akerlof (2001) has described it in his Nobel Lecture thus becomes an important institutional factor or enforcement characteristics governing access to markets for producers. This link has also been made by Van Huylenbroeck and Espinel (2007) on the basis of case studies of small livestock producers in Uganda, crop farmers on an irrigation scheme in the Peninsula of Santa Elena (Ecuador), and a biodiversity preservation scheme. So, rules and norms confer rights and individuals are able to take advantage of such rights under appropriate conditions such as affordable prices, access to credit and other facilitating services, effective infrastructure, adequate security, etc. Many or all of these require that appropriate and well-functioning organizations and political systems are in place to provide the requisite governance. It is therefore understandable that institutions can be viewed quite broadly as ‘the structure that humans impose on human interactions’ (North, 1990). Table 1.1 attempts to condense
1. Investigating institutional constraints to smallholder development

Many countries in Africa have since the 1990s been dismantling government controls and converting to market-based food systems, believing that market reforms would enhance farm profitability through their positive effects on prices, investment levels, and commercialization (Jayne et al., 1997). In fact, the need for such agrarian reforms, including commercialization of the smallholder production systems, has received considerable attention from governments and development organizations, including the SADC (FANRPAN, 2003; Anonymous, 2003). But the results of the reform programmes have been mixed and frequently inconsistent with the expected increases in productivity. It is now being realized that the sectoral reform prescriptions have, in many cases, been based upon only superficial knowledge of the prevailing economic institutions and how these thoughts into a framework that recognizes the ubiquity of institutions and how the diverse elements can be applied for enhanced performance.

Figure 1.1. Relationships between smallholder farming systems and institutions. Adapted from Norton et al. (2006).