Natural Resource perspectives

Number 90, January 2004

POLICY RESEARCH AND AFRICAN AGRICULTURE: TIME FOR A DOSE OF REALITY?

Steven Were Omamo and John Farrington

This paper argues that, for the rural poor in Africa, market failure is more the norm than the exception. Despite the growing attention given to market imperfections of the kind highlighted by New Institutional Economics, much policy advice on the agricultural economy in African countries remains based on unrealistic analysis and assumptions. To make policy advice more relevant requires a better understanding not only of how markets (mal)function, but also of implementation issues – what constrains implementability, how constraints can be overcome or bypassed, and what policy measures have greater or lesser prospects of implementation.

Policy conclusions

- The policy discourse in African agriculture has been dominated by agricultural economics, yet many of the standard assumptions of quantitative modelling are challenged by the reality of:
  - markets which are routinely non-competitive because of, e.g. high barriers to entry, increasing returns to scale, and non-insurable risk;
  - deliberate efforts by firms to maintain market imperfections by, e.g. building information exchange networks which exclude newcomers;
  - the absence of market pressures towards more competitive structure, conduct or performance.
- The major task of including the poor more fully in markets will continue to be neglected for as long as policy advice remains dominated by unrealistic assumptions concerning the structure, conduct and performance of markets.
- This discourse has tended to ignore political priorities such as achieving (or denying) developmental balance among regions or tribes.
- In addition, the discourse has generally sought some ideal of policy *design*, disregarding questions of *implementability*. Much more attention is needed to implementation constraints, such as weak infrastructure, power relations, and corruption, and to how these can be overcome or circumvented.
- If evidence-based research is to be more relevant to policy, it will have to be re-tooled to make good the above deficiencies. In particular, there is opportunity for new methods which are more qualitative, such as case study or networking analysis. Inevitably, these will also require a broader mix of disciplines than agricultural economics, which has been dominant hitherto.

Introduction

Africa is awash with policy studies on agriculture. Over time, these have covered practically every aspect of the agricultural economy, but in the last decade, many have been driven by the economic reform agenda espoused by the World Bank and the IMF, assessing how subsidies can be removed, tax regimes harmonised, trade and investment facilitated, and public enterprises privatised – in short, all the things perceived as necessary by neoliberal economists to convert the role of the state into that of facilitator and regulator of the private sector.

This paper examines two sets of shortcomings with these policy studies: the first is that many have been slow to incorporate understanding of why markets are imperfect, how and why many of those engaged in markets try to keep them imperfect, and what the implications of imperfections are for policy measures. The second is that few studies go beyond the question of *what* should be done by way of policy improvement – the *how* (i.e. of implementation) is severely problematic but generally neglected.

This paper treats each of these sets of difficulty in turn, and then asks what can be done to improve matters.

Market imperfections

The literature on market imperfection in relation to the theme of this paper is reviewed by Omamo (2003), and only the main strands of this review are presented here. Many of the studies of agricultural policy in Africa remain based on assumptions of well-functioning markets. A caricature (but only just) of these is presented in Box 1. In reality, market imperfections are the norm, not the exception, in many parts of Africa – market actors have to cope with high transaction costs and uninsurable risk. But at the same time, powerful market actors seek to maintain those types of imperfections which guarantee them high profits. These include economies of scale and networks built on social capital and designed to allow them access to privileged information. We consider each of these types of imperfection below.

Risk

Risk levels are high in African agriculture – from ‘natural’ causes such as pests and diseases or drought, and from higher-than-usual business risks in transport, theft, and so on. In theory, these risks are insurable, and so should not provide undue disincentive to those wishing to enter business

Box 1 A stereotypical view of the premises underpinning conventional agricultural economic policy advice in Africa

A sceptical reading of many of the reports by agricultural economists offering advice to African policymakers might suppose that they are based on assumptions that:

- any intra-country disparities in agricultural incomes result from differences in climate and soil (i.e. the capacity to reap economic rents), and not from the malfunctioning of markets;
- agricultural markets are highly competitive and serve the interests of all groups equally;
- market reforms have distinct beginnings and endings, and the World Bank and IMF decide on those dates;
- public services, such as research and extension systems, are as easy to rebuild as they are to dismantle;
- African farmers and herders are primarily natural resource managers and not in it for the money;
- African traders are benevolent creatures, and not, like traders everywhere, in it for the money;
- urban squalor and rural stagnation are unrelated, and unimportant anyway.

Source: Omamo (2003)

DFID Department for International Development This series is published by ODI, an independent non-profit policy research institute, with financial support from the Department for International Development. Opinions expressed do not necessarily reflect the views of either ODI or DFID.

such as agricultural input supply. In reality, insurance markets work imperfectly, with exceptionally high premia in many cases. More importantly, businessmen face a large number of risks which are simply uninsurable. These include political interference in their businesses – ranging from the most trivial personnel matters to the threat of being taken over. Perhaps most fundamentally, political factors generate instability in the markets in which they operate. The government of Zambia's continuing (and unpredictable) involvement in fertiliser imports following its declaration to the World Bank and others of its intent to withdraw, has made it impossible for the private sector to engage with fertiliser supply at anything more than arms' length (Box 2).

Scale economies

Trade in most specialised agricultural inputs is characterised by significant indivisibilities and economies of scale, such as those in fertiliser trading which result from lumpy, dispersed and seasonally-defined demand, high domestic transport costs, and significant financing and knowledge requirements in international trade. Together, these factors cause high start-up costs to trade. Traders in specialised inputs gravitate towards locations with potentially high demand. But even there, limited quantities are brought to market at high prices. This may trigger a cycle in which farmers economise on the use of fertiliser, diversifying into subsistence-oriented production strategies that offer low returns, which may put further downward pressure on their demand for fertiliser. The result may thus be a self-reinforcing movement towards an equilibrium featuring limited trade in high-priced specialised inputs, alongside production systems characterised by limited use of improved inputs, and thus low productivity and low incomes.

Institutions and transaction costs

But how is it that in some circumstances start-up costs and other barriers to entry can be reduced so that increasing specialisation, competition and self-sustaining productivity growth can occur over time, whereas in others this does not occur? New Institutional Economics (NIE) seeks to provide answers to some of these types of question. It also questions whether Economic Reform Programmes have under-specified the role of the state in the face of chronic market failure (see, for instance, Dorward et al, 2003). A main plank of the NIE approach is to understand the nexus of institutions through which knowledge is discovered and employed to facilitate the coordination of economic activity. The costs of these institutional arrangements, together with the technology employed, determine the total costs of production and transaction and so help to determine competitiveness. Where information and knowledge acquisition can be made easily accessible, transaction costs are lowered and competition increased. This places a premium on 'open information' policies, and on arrangements such as cooperatives intended to facilitate information sharing. However, the more powerful actors in business attempt to preserve their privileged access to information by strengthening mutually beneficial links with others and networking with them, to the exclusion of newcomers.

Box 2 Policy instability in Zambia

The late 1960s witnessed a spate of post-Independence nationalisation in Zambia. This was reversed through a wave of privatisation in the mid-1990s. Further, as part of Zambia's Economic Reform Programme, the massive distribution subsidy on fertiliser and other inputs implied by pan-territorial pricing was removed. Falling maize production resulting from reduced fertiliser use has led to (potentially) politically explosive shortages of maize in the main urban areas. To head off political threats, the government has recently intervened by using its food reserve agency to import fertiliser and distribute it at subsidised prices. This inevitably has a negative impact on the willingness of the private sector to engage in fertiliser markets.
Source: Farrington and Saasa (2002)

Networks

Cooperatives of small or medium-scale producers help in getting to know one another, gauging reputations and winning trust. But these are also the features of more restrictive networks designed to promote the interests of colluding individuals. In these, the high costs of building trust (which represent a fixed cost and potentially therefore a barrier to entry) are recouped over the longer term through the mutual benefits that information sharing can bring. But they also keep competition down by excluding newcomers. An important further point is that there are no inherent pressures on the markets to move towards more competitive structures. Nor will policy measures to promote entry into markets dominated by networks necessarily result in more competitive behaviour.

Answering 'how' questions

Power-cognizant narratives

The increased emphasis on quantitative techniques in agricultural economics training is reflected in policy reports in which individuals make rational, unconstrained choices, and their economic decisions stand in functional relationships to each other. Questions of power – who can achieve what (and, in doing so, perhaps exclude others from development processes) – are crucial in real life but rarely figure in econometrics. Such analysis needs to be supplemented (or replaced) by a sequence of questions:

- In which direction are we moving, economically and socially?
- Who gains and who loses in this dynamic?
- Is this changing balance desirable?, and
- If not, what can be done about it and how (i.e. by what mechanisms of power?)

Ex-post hazards

Typically, the analysis of how well a particular policy is implemented falls to those asked to monitor and evaluate on-going initiatives. Procedures for ensuring that these are taken into account in further policy design or course-correction are generally highly imperfect. The result is that 'the best remains the enemy of the good' – i.e. policy advisers continue to advocate ideal but unworkable measures at the expense of less than ideal but workable ones. In many contexts, a fully market-driven approach, although advocated by many as desirable, will in fact need to be moderated to ensure that the interests of the poor are defended. For instance, firms bidding for control of enterprises being liberalised might be required to expand poor households' access to particular services or products, perhaps in return for a commitment from government to allow market prices to prevail after a stipulated period.

Governance, politics and operational feasibility

The recent emphasis on good governance by major development organisations reflects growing recognition of the importance of matching design with implementation prospects. But many calls for improved governance are themselves idealised. Some, for instance, overestimate the extent to which market forces can be relied upon in the introduction of new institutional arrangements. For instance, the types of reform in agricultural extension being proposed by the World Bank and others rely variously on greater participation by farmers in technology development, stronger farmer capacity to identify and articulate their requirements for technology change, and the willingness of extension agents to work for fees, outside the security of previous civil service arrangements. To implement such an array of innovations simultaneously through greater reliance on market forces is little short of an institutional revolution. Market forces are generally weak in directing the emergence and selection of radically new technological and institutional arrangements of the kind envisaged in the model. Where the process of innovation is highly exploratory, as it is with institutional reform, its direct responsiveness to economic signals is unpredictable.

Political issues seldom feature explicitly in agricultural policy research; an omission that is unfortunate, especially for Africa. Consider agricultural markets, which have been the subject of considerable attention from agricultural policy researchers in recent years. Historians have long known that the structure of interests that seek advantages in Africa's agricultural markets rests on the interplay of the *inherent* nature of competition in these markets (as defined, for instance by the institutions and technologies available to override key barriers to market entry and utilisation) and the distribution of political power that gives competition its *actual* expression. Distributions of political power typically have distinct spatial patterns. More appropriate distribution of power across administrative provinces and districts and, of course, tribes, is thus a compelling motivation for change in agricultural institutions, including agricultural markets in Africa. Yet, such issues have rarely been raised in the numerous analyses of market liberalisation in Africa. Box 3 considers political issues underpinning on-going agricultural sector reform in Uganda.

Conclusions and ways forward

One broad conclusion is that, as Box 4 argues, developing country policymakers are deeply concerned with 'how' questions, and with the costs of implementation, and so may prioritise policy recommendations very differently from the rankings given by advisers, consultants, donors or International Financial Institutions.

Another conclusion from this review is that highly quantitative types of agricultural economics are not a sufficient basis for policy advice. Any assumptions they hold of rational actors exercising free choice in moderately competitive markets need to be scrutinised very carefully, and they need to be moderated both by a macro understanding of overriding issues of political concern such as how to manage regional disparities in growth and income, and by understanding at several levels of how power relations play out, how the poor are excluded, and what can realistically be done to minimise or reverse such exclusion. Much of this understanding needs to be gained through qualitative techniques. In some cases, it will be necessary to use techniques such as action research to pilot new approaches to the delivery of products or services, recognising and addressing the different types of imperfection that may affect specific markets. Two types of policy action are possible: indirect action aims to influence the 'framework conditions' of agricultural policy, including the institutional context, and direct actions would be concerned more specifically with e.g. improving access to and utilisation of products and services. In many cases, the phenomena under study are likely to be too few in number and too poorly defined over space and time to permit standard model-building and hypothesis testing. In many cases – the reform of agricultural extension, for instance – the central questions may be best posed by sociologists, political scientists and historians, with agricultural economics playing a secondary, supporting role.

Box 3 Politics and agricultural sector reform in Uganda

Assessments of Uganda's ambitious Plan for the Modernization of Agriculture (PMA) that do not recognise the political tensions raised by the in-built horizontal (cross-sectoral) nature of the Plan, and by the central roles played by donors and civil society in the Plan's design phase, will fail to grasp the central challenges faced in implementing the Plan. Tensions emerge as agriculture's line ministry negotiates terms with the Executive branch, and with various 'non-line' ministries that influence resource allocation for national development, e.g. the Ministry of Finance. A large donor role in planning and heavy donor influence in implementation means there is intense pressure to demonstrate early impact and thus little time and resources to invest in key institutional strengthening activities prior to implementation. Institutionalised involvement of civil society widens the scope for debate and disagreement on a range of implementation issues, rendering the process volatile and open to interruption.

Box 4 Ignoring 'how' questions

Analysts usually simply list the requirements of sound policy, or merely itemise *what* governments should do. A typical listing might read as follows:

- fully implement market liberalisation;
- provide input credit to farmers;
- develop a legislative infrastructure;
- promote smallholder production of export crops;
- invest in market development;
- provide safety nets to support vulnerable groups;
- maintain credible and sustainable macroeconomic policies.

Or like this:

- establish institutions capable of setting relevant quality standards, adjusting them to ongoing market changes, and enforcing them upon growers;
- offer small-scale producers and traders means to increase their market power;
- increase capacity of institutions at the primary-producer level to achieve the quality premiums and integration required within increasingly externally controlled and managed supply chains;
- develop simplified procedures for protecting against dumping and countervailing duties;
- increase investment in rural transport, water and processing infrastructure;
- abandon the current focus in research and extension on high use of external inputs and embrace instead low-external-input sustainable agriculture (LEISA);
- enact regulations that allow for diversification of sources and forms of input supply supporting agricultural production based on LEISA;
- institutionalise a perspective that views agricultural development policy as a component of rural development policy; and
- abandon top-down approaches to rural development in favor of more decentralised and participatory approaches.

The problem is not that these ideas are off-target. On the contrary, they are usually firmly grounded in rigorous analysis. The trouble is that no consideration is given to *how* cash-strapped African governments targeted for this advice might go about designing and implementing the suggested programmes and initiatives. But are not questions of *how* to do these things the ones to which Ministers and Permanent Secretaries of Agriculture and Finance in Africa want answers? The net benefit of such changes is not merely what they yield over and above existing practice, but this *minus* the recurrent costs of implementing such changes in the ways intended, and *minus* the costs (political as well as economic) of setting up new initiatives in the first place. This is the equation that interests Ministers and Permanent Secretaries. Where new proposals are costly to implement and operate, a reluctance to adopt them is perfectly logical to policymakers, but may appear perverse to those (usually outsiders) who do not see the full picture.

A second conclusion is that much policy advice hitherto has focused on achieving ideal policy design without establishing whether, how and at what cost such policies are implementable. Necessary here are studies of the alternative types of delivery mechanism, their cost-effectiveness, and their robustness in the face of threats such as those posed by weak infrastructure on the one hand, or corruption on the other.

A case study approach – with or without action research – is limited in time and space and so can only address directly the specific problems that are evident locally. However, if interpreted carefully, these can often be seen as local manifestations of a much more general set of problems, and so can illuminate these. The aim is to avoid treating complex phenomena as though they were *incidents* or *events*, and treat them instead as institutionally embedded *processes* with distinct histories which need to be carefully uncovered.

Networking analysis also offers promise as a way forward. It can illuminate the institutional architecture of sub-sectors or industries and the patterns of cooperation and competition within them. It can also promote the collaboration among the social sciences and between social and biophysical sciences that is necessary to bridge between research and policy design and implementation. A central feature of network perspectives is that actors do not behave or make decisions as individuals outside a social context. Nor do they adhere slavishly to a script written for them by the particular intersection of social categories that they happen to occupy. Their attempts at purposeful action are instead embedded in ongoing systems of social relations. Thus, network analysis serves not to model the minutiae of individual economic behaviour, but to build broad understanding of the organisational structure and functioning of broad systems of economic activity. For instance, from a network perspective, the question is not so much 'how do markets work?', but rather how markets, collective initiatives and the public sector interface (whether within or outside formal organisations) to achieve given outcomes in agriculture, such as improved agricultural technology development and diffusion. A network perspective (Dosi, 2000) can illuminate that interface, as it requires analysts to recognise that the evolution of any economic activity is intertwined with that of the industrial structures associated with it.

References

Dorward, A., Poole, N., Morrisson, J., Kydd, J. and Urey, I. (2003) 'Markets, Institutions and Technology: Missing Links in Livelihoods Analysis', *Development Policy Review* 21(3): 319–32.

Dosi, G. (2000) *Innovation, Organisation and Economic Dynamics: Selected Essays*, Cheltenham: Edward Elgar.

Farrington, J. and Saasa, O. (2002) 'Drivers for Change in Zambian Agriculture Defining What Shapes the Policy Environment', report for DFID.

Omamo, S.W. (2003) 'Policy Research on African Agriculture: Trends, Gaps and Challenges', *ISNAR Research Report* 21, The Hague: ISNAR.

Recent titles in the NRP series

89. Livelihoods, Chronic Conflict and Humanitarian Response: A Review of Current Approaches – *Catherine Longley and Daniel Maxwell*
88. Making the Link between Micro and Meso: Learning from Experience of Community-based Planning (CBP) – *CBP partners in Ghana, Uganda, South Africa and Zimbabwe*
87. Post Offices, Pension and Computers: New Opportunities for Combining Growth and Social Protection in Weakly-integrated Rural Areas? – *John Farrington, N.C. Saxena, Tamsyn Barton and Radhika Nayak*
86. Decentralising Natural Resource Management: Lessons from Local Governemt Reform in India – *Pari Baumann and John Farrington*
85. 'Just Wildlife' or a Source of Local Development? – *Caroline Ashley and Joanna Elliott*
84. The Enabling Environment for Agricutural Technology in Sub-Saharan Africa and the Potential Role of Donors – *Robert Tripp*
83. Poverty Reduction, Equity and Climate Change: Challenges for Global Governance – *Michael Richards*
82. Do Area Development Projects have a Future? – *John Farrington, Roger Blench, Ian Christoplos, Karin Ralsgard and Anders Rudqvist*
81. Supermarkets and Farming in Latin America: Pointing Directions for Elsewhere? – *Thomas Reardon, Julio A. Berdegué and John Farrington*
80. Creating a Policy Environment for Pro-poor Agricultural Extension: The Who? What? and How? – *John Farrington, Ian Christoplos, Andrew Kidd and Malin Beckman with Elizabeth Cromwell*
79. Combining Growth and Social Protection in Weakly-integrated Rural Areas – *Gerard J. Gill and John Farrington*
78. Rights and Livelihoods Approaches: Exploring Policy Dimensions – *Tim Conway, Caroline Moser, Andy Norton and John Farrington*
77. Mainstreaming Cross-cutting Themes in Programme and Sector Aid: the Case of Environmental Issues – *Gil Yaron and Judy White*
76. Devolution and Community-based Natural Resource Management: Creating Space for Local People to Participate and Benefit? – *Sheona Shackleton, Bruce Campbell, Eva Wollenberg and David Edmunds*
75. From Supervising 'Subjects' to Supporting 'Citizens': Recent Developments in Community Forestry in Asia and Africa – *David Brown, Yam Malla, Kate Schreckenberg and Oliver Springate-Baginski*
74. Can International Conservation Treaties be Geared More Towards Poverty Reduction? The Case of CITES – *Barnabas Dickson*

Acknowledgements

This paper is developed in part from a longer piece by one of the authors (Omamo, 2003). Steven Were Omamo is Research Fellow and Network Coordinator with IFPRI (w.omamo@cgiar.org) and John Farrington is a Research Fellow at ODI (j.farrington@odi.org.uk).

ISSN: 1356–9228

See *www.odi.org.uk/nrp/* for papers in this series.

Series Editor: John Farrington Administrative Editor: Leah Goldberg

The Overseas Development Institute, 111 Westminster Bridge Road, London SE1 7JD, UK
Telephone +44 (0)20 7922 0300 Fax +44 (0)20 7922 0399 Email nrp@odi.org.uk