MAKING AGRICULTURAL MARKET SYSTEMS WORK FOR THE POOR:
PROMOTING EFFECTIVE, EFFICIENT AND ACCESSIBLE COORDINATION AND EXCHANGE

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Summary

1. Markets provide an important mechanism for efficient coordinated economic exchange, and increasing volumes of market transactions are a key feature of richer economies. Promoting more efficient and extensive markets and favourable access of the poor to markets is an important element in promoting their access to exchange mechanisms. However markets are only one mechanism for coordinated exchange. Two other mechanisms are also very important in different economies. *Hierarchical relations* in organisations (government agencies, firms, civil society organisations) play a major role in advanced market economies both as channels for exchange and in providing institutional services necessary for markets to work. Informal and personal *gift exchanges* between economic players are major channels of exchange in poorer economies and in all types of economy play an important role in facilitating other (market and hierarchy) exchanges. Distinctions between market, hierarchy and gift exchange mechanisms are often blurred as many exchanges include elements of all three.
2. Agricultural growth in poor rural areas can drive poverty reduction through three broad mechanisms: the direct impacts of increased agricultural productivity and incomes on the rural poor who derive significant parts of their income as farmers or farm labourers; the benefits of cheaper food for both the urban and rural poor; and agriculture's contribution to growth and the generation of economic opportunity in the non-farm sector. Over time this leads to structural economic change, with growing importance of the non-farm economy, and declining relative importance of the agricultural sector. The critical role of agriculture and of agricultural markets in poverty reduction therefore applies only to poor economies which have not already achieved significant agricultural growth.
3. While agricultural growth has its greatest impacts on very poor rural economies, it also faces severe challenges in such economies as a result of demanding supply chains, weak institutions and often thin markets, and these can lead to low level equilibrium traps which deter smallholder farmer and agri-business investments. In such circumstances the development and operation of institutional mechanisms promoting *coordinated exchange* along supply chains and the access of the poor to such exchange becomes critical to pro-poor growth in rural areas.
4. Post-independence development policies emphasised state-led building of hierarchies and hybrid mechanisms for coordinated exchange to support smallholder development. This has given way to market liberalisation policies stressing market exchanges and discouraging state hierarchies. Earlier policies achieved mixed success in stimulating agricultural growth and, in time, poverty reduction: the green revolution, underpinning dramatic and unique growth and poverty reduction processes in parts of Asia, was largely

achieved through state organisations providing critical coordinated exchange opportunities to smallholder farmers. However in other parts of Asia and, notably, in large areas of Africa the same policies failed to deliver much growth but imposed enormous fiscal burdens and distortions on economies which could ill afford them. Liberalisation policies, on the other hand, have broadly failed to live up to expectations in driving agricultural growth and poverty reduction in poor rural areas.

5. The dominant response to liberalisation's failures has not been to question its fundamental logic but to look for ways of improving its implementation – through more complete withdrawal of the state from markets, and greater support to institutions and services necessary for markets to work. This has (paradoxically) demanded a greater role for the state (and civil society) in strengthening property rights, regulatory systems, information access, and communications to allow withdrawal of the state from other activities.
6. More fundamental critiques of liberalisation point to the importance of hierarchies in undertaking and supporting coordinated exchange in advanced market economies and to the lack of historical examples of rapid growth and poverty reduction without state involvement in the development of such hierarchies. Pervasive conditions in poor rural areas also undermine the ability of existing markets (which are weak, disjointed, and atomistic) to develop coordinated exchange mechanisms which are critical in the development of agricultural supply chains needed for pro-poor agricultural intensification.
7. These arguments call for explicit external support to the development of (a) hierarchies which can provide or support coordinated exchange opportunities necessary for pro-poor agricultural growth and (b) institutions, technologies and prices which will make investment in such development attractive. They do not, however, call for a reinstatement of past policies, but for a search for new mechanisms that will reproduce the achievements of pre-independence policies where they were successful, but adapt these (a) to suit (generally more difficult) conditions in today's poor rural areas and (b) to overcome the many (sometimes disastrous) weaknesses of these policies. Such mechanisms are likely to involve new state, private and civil society institutions and partnerships, and a key role for the state in particular (and for these mechanisms more generally) in promoting both coordination and access by the poor to its benefits. It must also be recognised (a) that different areas need different approaches to match their agro-ecology, crops, infrastructure, etc, and (b) that policies need to change over time and both manage and be part of transitions in the structure of economies and of the institutions which provide the essential mechanisms for coordinated exchange.
8. The search for these new coordinated exchange mechanisms is a major but critical challenge in the task of reducing poverty in poor rural areas (although this may not apply in very low potential poor rural areas), a task which demands both research and action by donors, international and national policy makers, funding agencies, firms, farmer organisations, NGOs, service providers and researchers.

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1 Introduction

1. This paper examines ways in which agricultural market system performance can be improved to stimulate and sustain pro-poor growth. The topic is important because
   - agriculture plays a critical and unique role in pro-poor growth;
   - improved market systems are critical to both the development of agriculture and the way that it contributes to wider growth;
   - there have been wide ranging changes in dominant agricultural policy paradigms over the last 50 years or so, and, with limited success of more recent policies in promoting widespread poverty reduction, a reappraisal of current policy is urgently needed.
2. At the core of the paper are questions about coordination and exchange needed for pro-poor agricultural growth in poor rural areas and about the relative efficiency of different forms of market and other (non-market) mechanisms in facilitating coordination and exchange. Answers to these questions then determine how governments and civil society in poorer countries should encourage and create forms of economic organisation which are effective in (a) stimulating and nurturing the development of an exchange economy that promotes agricultural and non- agricultural growth and (b) improving the extent and terms of different poor people's access to and participation in the exchange economy
3. The paper begins by setting out key starting points in the following two sections, first with a brief discussion of different mechanisms for coordination and exchange, and then with an examination of the importance of pro-poor agricultural growth in poor rural areas and of coordinated exchange in promoting such growth. Subsequent sections then deal, in turn, with constraints to pro-poor agricultural growth and market access in poor areas and historical experience in overcoming these constraints, The paper concludes with discussion of alternative policy responses to exchange failures in poor rural economies.

2 Exchange and coordination mechanisms

4. Three categories of allocation and transaction mechanism can be distinguished, arranged in order of increasing emphasis on precision in the content of exchange and decreasing emphasis on the relationship for exchange: gift exchange, hierarchies and markets. In reality, economies (including developed market economies) function through a complex interaction of all three, particularly the latter two, and many hybrid arrangements are encountered.
5. *Gift exchange* is based on shared values which stress reciprocity and the collective good. The terms of mutual obligations are deliberately imprecise and gift exchange cultures have to invest heavily in maintaining their ethical base, this being a form of coordination cost. The processes of economic development lead to a decline in the relative importance of gift exchange, but it continues to be very important, as shown by increasing recognition of the importance of investment in social capital in determining peoples' ability to participate in and benefit from a wide range of economic and social activities (see for example Bezemer *et al.* 2003). An example of this is communal systems of land tenure (where access to land is based on community membership and follows community allocation rules). Usufruct tenure, for example, continues in many poor rural areas, although it is evolving, and so traditional ethics continue to exercise powerful though waning influences in constraining the role of markets in land allocation. However gift exchange continues to be important in more developed market economies in for example corporate hospitality and other elements of social interaction in business relationships.

6. *Hierarchies* differ from markets in using command and control to allocate resources. This is how governments, parastatal agencies, most NGOs and anything other than the smallest private firms operate. In present day economies, hierarchies co-exist with markets and indeed use markets to transact with each other and final consumers. The boundaries between hierarchy and market are fluid and restless, for example when firms merge, hierarchy takes over from market allocation but, in contrast, when successful business start-ups compete with existing players, ground is regained for the market. The boundaries between hierarchy and gift exchange are also blurred – as firms invest in reputations with consumers and as noted above in personal relations with key personnel in other firms they work with.
7. The essential distinguishing feature of *markets* is that transactions are:
   (i) voluntary (in a narrow sense at least) as both sides have to perceive gain for trade to occur;
   (ii) the terms of exchange are usually precise in terms of quantity, quality, space and time;
   (iii) markets facilitate competition, spurring gains in quality and production efficiency (although this conclusion may not apply to excessively market dependent poor economies, as is explained below);
   (iv) perhaps most important of all, markets require money, which is not only an essential condition for wider exchange, but also the critical medium for savings, loans and investment;
   (v) coordination costs are different and include macroeconomic management to maintain the value of money and a police and court system but, because the volume of exchange can rises hugely, often are much lower per unit.
8. Market forms vary massively with key features of complex markets found more extensively in richer countries including abilities to create and trade artificial instruments beyond paper money (for example commodity futures and derivatives) and to transact quickly at low costs between previously unknown counter-parties. However fairly complex market and hybrid market-hierarchy forms are also found in rural areas of poor countries, for example contract farming and sharecropping. These are often based on interlocking, a requirement that farmers transact with a counter-party in more than one market, for example where one supplier provides farmers with some combination of land, inputs and finance and in return for the right to buy farmers' produce and/or labour. The element of hierarchy in these arrangements arises where, for example, farmers agree to accept general orders concerning the timing and performance of agricultural operations. Share cropping (and other market-hierarchy hybrids) may also involve an important element of gift exchange – with these being part of patron-client relationships under which the more wealthy party undertakes to provide the poorer party with some form of social security. Long term contracts between firms or individuals may also be seen as a hybrid between market and hierarchy forms of exchange. Supplier credit arrangements and franchise systems are a form of inter-locking and hybrid market-hierarchy arrangements found in more developed economies.
9. An appreciation of the co-existence of gift exchange, hierarchy and markets (and of hybrids) in emerging and developed economies is important in considering agricultural market systems, as each type of exchange has strengths and weaknesses, and hence advantages and disadvantages under different situations – indeed we use the term 'market system' in this paper to describe a system of coordination and exchange involving some combination of gift, market and hierarchy mechanisms. Promotion of effective, efficient and accessible coordination and exchange in agricultural market systems therefore requires consideration of which of these type of mechanism may be more appropriate in particular situations. We therefore consider in sections 3 and 4 of this paper first the particular opportunities and then the particular constraints facing pro-poor agricultural growth in poor rural areas.

3 Why are agricultural market systems important for poverty reduction?

10. Improved agricultural market systems are important for poverty reduction first because agricultural growth can play a critical and unique role in pro-poor growth; second because

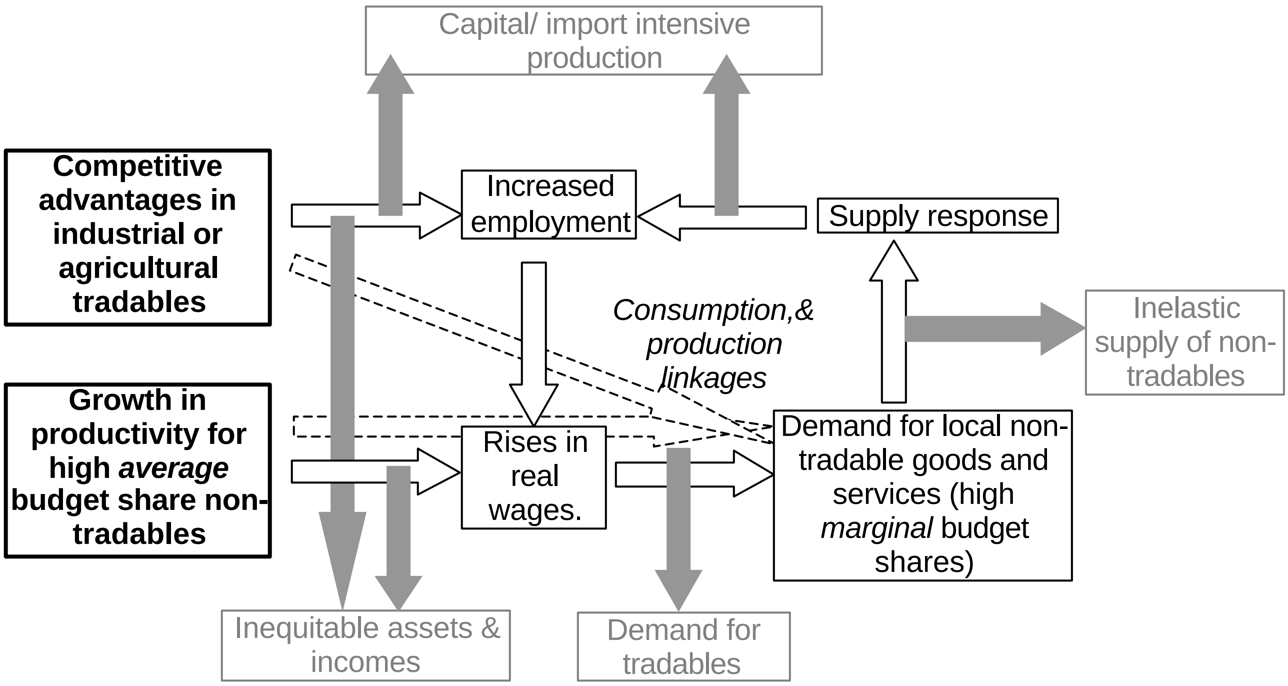
improved coordination and exchange are critical for agricultural growth, and third because improved coordination and exchange are also critical for the processes by which pro-poor agricultural growth contributes to wider growth. This section therefore considers first the more general ways in which access to exchange mechanisms can benefit poor people; the roles of coordinated exchange and resource allocation in wider pro-poor growth; and the difficulties and risks in such access by different poor people. This then leads on to discussion of how access to more effective and efficient agricultural market systems is particularly important for pro-poor growth.

3.1 Coordination and exchange in pro-poor growth

11. Coordinated exchange mechanisms can contribute to poverty reduction in many different ways at different levels. Fundamentally they allow different players to exchange resources, goods and services so that they can be utilised according to different suppliers' comparative advantages and consumers' relative preferences. Production and consumption benefits can arise from bilateral exchanges, but benefits are multiplied with networks of exchanges involving multiple players and multiple commodities or services, and with spatial and temporal expansion. This multiplication of benefits arises because
    - more transactions allow more players to concentrate on activities where they have comparative advantage, with increasing efficiency and lower cost production;
    - increasing specialisation commonly leads to economies of scale with further efficiencies;
    - these changes themselves can induce technical change; and
    - the wider growth that these processes promote leads to further demand for resources (benefiting suppliers of these resources) and lower cost and increased outputs (benefiting consumers).

    Players in an economy can therefore benefit from improved access to exchange mechanisms in two ways: *direct benefits* arise where these mechanisms enable players to access low cost assets, goods and services they use in exchange for goods and services they produce) DFID 2000); *indirect benefits* arise from 'linkages' where these mechanisms stimulate wider growth which in turn raises demand for goods and services players can produce, linking players to benefits from improved exchanges in which they have no direct involvement.
12. These exchange linkages across an economy allow changes in one activity to have profound impacts on other activities elsewhere in the economy – a process that has been critical to poverty reduction in Green Revolution areas where improvements in wheat and rice productivity led to increased demand for labour, which increased real agricultural incomes. This in turn increased local demand for labour intensive production of other goods and services, further increasing local incomes (Hazell and Rosenzweig 2000). Understanding the dynamics of these linkages is critical for understanding both the opportunities that exchange mechanisms can offer for livelihood development, and the potentially wider impacts of livelihood change on exchange mechanisms.
13. A long-standing theoretical and empirical literature has examined these linkages between different activities within rural economies (see Delgado *et al.* 1998 and Dorward *et al.* 2001). Examination of linkages allows exploration of the effects of exogenous change as they work through different elements of the rural economy. Figure 1 summarises the key linkages between processes of livelihood change and market access on the one hand and on the other wider processes of growth and a 'virtuous cycle' whereby production and consumption linkages allow the stimulus of some production or market opportunity to feedback into increased demand for labour and for locally produced goods and services. However, the 'leakages' from this virtuous circle also need to be recognised. Understanding of these linkages and leakages may help in understanding the markets and activities that will have wider positive impacts on the livelihoods of the poor and on the opportunities available to them.

Figure 1. Linkages and leakages in a local economy [1]



14. This analysis allows a useful distinction to be drawn between '*growth drivers*' and '*growth supporters*' in an economy, where the 'growth drivers' are processes that provide an initial stimulus increasing income flows in an economy, while 'growth supporters' are processes which increase multiplier effects to give wider and more sustained growth impacts from growth drivers (Poulton and Dorward 2003). Principal 'pro-poor growth drivers' are
   - price or productivity increases in tradable[2] products with a high labour input by the poor;
   - productivity increases in non-tradable products (or falls in price for tradable products) which have a high *average* budget share in the poor's expenditure (for example staple foods);
   - changes in technology or reduced barriers to entry allowing the poor to produce non-tradables with high *average* budget shares, which they could not previously engage in; or
   - gains to significant numbers of non-poor (as in (a) or (b) above) expanding demand for goods and services produced by the poor – for example goods and services with low capital and high labour intensity in production.
15. 'Growth supporters', on the other hand, involve the ability of local suppliers to respond to increased demand in an economy, to capture multiplier benefits from growth drivers. Consumption linkages support growth where it increases demand for locally produced 'non-tradables' on which people spend a large share of extra income (a high *marginal* budget share). Production linkages arise where a 'growth driver' demands locally produced, non-tradable inputs ('upstream' linkages) or local processing ('downstream' linkages), provided that these activities have a high labour content and low barriers to entry (allowing an elastic supply response providing employment for the poor). 'Growth drivers' are essential to get

[1] From Dorward *et al.* 2003

[2] The term 'tradable' refers to goods or services which can be traded (bought or sold) beyond the boundaries of a particular economy and whose price is therefore determined by supply and demand outside the economy. Non-tradables are produced and consumed locally, with local price determination. Semi-tradables have a large price band separating export from import prices, with local supply and demand determining prices within this band.

economic growth going, but growth supporters, although largely ineffective without growth drivers, allow larger, more sustained and more widely distributed (and hence pro-poor) benefits from growth driver stimuli.

16. Significant and sustained poverty reducing growth therefore requires not only the presence of potential growth drivers and supporters, but also exchange mechanisms that (a) transmit demand signals across different players in the economy and (b) enable these players to respond to these with increased local supply. These responses themselves depend upon effective exchange mechanisms allowing extra production resources to flow where they are needed. Critical for the success of these mechanisms, and hence of pro-poor growth, are coordination systems for the exchange of different inputs and outputs, each linking potential buyers with potential sellers. These systems must have

    private costs (and risks) in exchange lower than the private benefits from direct participation in exchange;

    public costs (and risks) in exchange lower than the public (indirect) benefits from exchange; and

    incentives for buyers, sellers and system managers to maintain an effective and efficient system.

17. A further important benefit from exchange systems is the ability to use these to reduce vulnerability to particular shocks. Exchange generally allows a more diversified portfolio of assets (as it allows income in one asset to be exchanged for other assets) and thus reduces vulnerability to losses from risks to which particular types of asset are susceptible. Exchange is also the basis for particular risk mitigation strategies, as losses of income, or losses of particular assets, can be replaced in exchanges for other assets. Some exchanges (those involved in insurance services and some other savings and credit services) are explicitly engaged in to reduce risks and vulnerability. Exchange systems also introduce their own risks, however, and can therefore increase vulnerability, as activities which depend upon exchange become vulnerable to adverse changes in prices or to exchange failure.

18. We conclude this section by noting that poor people themselves often identify problems in the terms of exchange (prices or costs of exchange) or in their access to exchange mechanisms as critical to their livelihoods (Dorward *et al.* 2003). Dorward and Poole 2003 identify three principle types of exchange failure affecting the poor.
    - First, for some ‘public goods and services’ it is not possible for market mechanisms to restrict use or enjoyment only to particular people who pay for them. Under such circumstances there is no incentive for users to pay for their consumption of these goods and services, and so individuals and firms who provide such goods and services cannot gain any income from these activities through market exchanges.
    - Second, where institutions are weak or over-regulated then the transaction costs and risks from engaging in exchange may be very high, so high as to make it unprofitable. This type of exchange is less well recognised and understood.
    - Third, exchange systems may fail for the poor when they are unable to access them, or can only access them on very unfavourable terms, due to lack of resources, active discrimination, or lack of information or power.

    We term these ‘public good failures’, ‘transaction failures’, and ‘access failures’, respectively.

19. Expanded access to exchange opportunities can also pose threats to people’s livelihoods, for example opening up competition by outside producers may not only lower prices for poor consumers, but also drive local producers out of production (Dorward and Poole 2003, Poulton and Poole 2001), or allow powerful elites to capture new economic opportunities or resources in activities that were previously undertaken by the poor (DFID 2000). An important part of effective exchange systems is security of rights in the processes of both holding and exchanging resources, goods and services.

3.2 Special role of agriculture in driving pro-poor growth[3]

20. We can identify three broad mechanisms whereby agricultural growth and productivity gains can drive poverty reduction in poor economies: the direct impacts of increased agricultural productivity and incomes on the rural poor who derive significant parts of their income as farmers or farm labourers; the benefits of cheaper food for both the urban and rural poor; and agriculture's contribution to growth and the generation of economic opportunity in the non-farm sector. This over time leads to structural economic change, with growing importance of the non-farm economy and declining relative importance of the agricultural sector. As a result critical role of agriculture and of agricultural markets in poverty reduction applies only to poor economies which have not already achieved significant agricultural growth.
21. Despite recent literature that identifies the importance of diversified incomes of rural people (see for example Ellis 2001 a and b), agricultural production and labouring still account for very substantial proportions of poor people's incomes, and the poor often lack access to higher return non-farm activities through lack of financial, social and human capital (see for example Barrett *et al.* 2001**,** Reardon *et al.* 2000). Where increased production of staple crops leads to reduced food prices, this can lead to increased real incomes for the poor, who spend very significant proportions of their income on food. However, the greatest gains to the poor arise through the growth linkages and drivers discussed earlier, as agriculture drives forward growth in other sectors.
22. Our earlier discussion of growth drivers and supporters suggests that there will be some resources, goods and services for which exchange systems are particularly important for the poor. Tradable products with high unskilled labour inputs and non-tradable or semi-tradable goods or services with high average budget shares are important for driving growth, whereas high marginal budget share products are important as growth supporters.

    This suggests that smallholder agriculture and exchange systems supporting its development have a particularly important role in poverty reducing economic growth in poor rural areas where very significant numbers of poor people are located. In such situations it is commonly the sector with the greatest potential for *driving* growth, with significant production (or production potential) of tradable agricultural products and with non- and semi-tradable staple food production with high budget shares. It also has high potential for *supporting* growth (as livestock and horticultural products have high marginal budget shares in poorer economies), with strong upstream, downstream and consumption linkages; and many agricultural activities have high unskilled labour demands.
23. Another and related strand of literature on sectoral growth identifies the key role that agriculture can play in pro-poor growth in poor rural economies. This recognises four broad contributions that a dynamic agricultural sector can make to broader development in poorer countries where the agricultural sector accounts for a large proportion of GDP and an even larger proportion of employment:
    - increasing agricultural productivity is essential first for capital investment in agriculture itself and for the steady release of surplus capital and labour to other sectors of the economy;
    - it is the major source of export earnings and of food;
    - it plays a major role in keeping food prices down; and
    - it is the major source of domestic income and hence stimulus for demand for local goods and services (Mellor 1986; Timmer 1988).
24. Econometric studies of the connection between sectoral indicators (e.g. change in labour productivity) and economic growth and poverty reduction in the latter part of the 20th century strongly support these arguments that agriculture drives pro-poor growth in poorer rural areas (Thirtle *et al.* 2001)

[3] The discussion in the section, and in the paper as a whole, is concerned with poor rural areas which have some potential for increased agricultural productivity. Arguments for a special role for agriculture in driving pro-poor growth do not apply in areas with a very low natural resource endowments and agricultural potential..

25. A number of important implications follow from the discussion of agriculture's special role in driving pro-poor growth:
    - it depends critically upon the stage of growth and development of an economy (agriculture's role and importance as a growth driver declining as an economy develops, but being particularly critical in countries with large and poor rural economies, which have the greatest incidence and severity of poverty);
    - it depends upon the nature of agriculture growth (stimulating production of tradables and of food staples, and stimulating on farm labour demand as well as increasing labour productivity)
    - it depends not only upon agricultural input and produce market (or coordinated exchange) systems that support agricultural growth and access by the poor to its direct benefits, but also upon their access to market systems that support the wider linkages that transmit the benefits of agricultural growth into increased demand and supply opportunities in the non-agricultural economy. Labour exchange systems are critical in this as unskilled labour is the resource which poor people have most of, but land, capital and skilled labour exchange are also important: direct exchange benefits to the poor can result from increased access to these exchanges if it enables them to enter new activities, while wider exchange systems for these resources are essential for economic growth. However, before agriculture can drive wider pro-poor growth it must first grow itself, and we therefore turn now to consider particular market related challenges and constraints to improved agricultural growth in poor rural areas where improving access to financial services, inputs and output markets often present major challenges.

Box 1 Non-farm diversification and pro-poor growth in poor rural areas

Analysis of market linkages and growth drivers and supporters is very relevant to questions about critical markets for pro-poor growth, and the relative importance of access to different market opportunities. This can be illustrated by debates about the importance of non-farm diversification and the relative importance of farm and non-farm activities in pro-poor growth in rural areas, particularly remoter rural areas. As noted earlier, livelihoods analysis has been associated with increasing recognition of the extent of non-farm diversification, and it is also commonly observed that less poor households commonly have more effectively diversified incomes whereas the poor are often stuck in low return farm or non-farm activities. A common but superficial conclusion from these observations is to favour the development of opportunities for higher return non-farm activities. However, the poor are often denied access to higher return non-farm activities, as they lack the financial, social and human capital necessary to engage in these activities, and unless explicit attention is paid to improving the access of the poor to engage in these activities, policies supporting high return non-farm enterprises may help the better off while providing little benefit to the poor. Furthermore, unless the non-farm activities being promoted are tradables (that is supplying demand outside the local economy) increases in these activities are likely to depress local prices, with little benefit to local producers. Broad based growth which benefits the poor in poor rural areas is therefore more likely to involve labour intensive production of either agricultural tradables or non-tradable foods (with a high local budget share). This will be the case even if the initial beneficiaries of such production increases are less poor farmers, as the poor may benefit from increased demand for labour (with higher wages or greater sales of their labour) and from reduced food costs. However, as rural areas begin to grow, then enhancing the access of the poor to non-farm activities and markets may be critical in reducing leakages and sustaining multiplier benefits.

4 Challenges to pro-poor agricultural growth and market access

4.1 Constraints to agricultural and market development in poor rural areas

26. Poor rural areas are typically characterised by a daunting set of generic and often mutually reinforcing problems which include poor roads and telecommunications; poor human health; lack of a well developed and diversified monetary economy; thin markets for agricultural inputs, outputs and finance despite significant direct and indirect dependence of the economy of these areas on agriculture; and a (particularly agricultural) business environment characterised by weak information (on prices, on new technologies, and on other potential market players), difficult and weak contract enforcement, high risks (not only in production and prices but also in access to inputs and markets and in enforcing contracts); and high transactions costs - the costs that buyers and sellers incur in protecting themselves against risks of a transaction failing (due to the absence of suppliers or buyers) by searching for and screening potential suppliers or buyers and their goods and services, then negotiating and contracting with them, and monitoring and enforcing their adherence to the contract[4]. These problems are borne particularly by poorer and more marginalised people, but also affect larger entrepreneurs and businesses.

27. Nested within the general challenges facing poor rural areas as described above are a set of issues specific to agriculture and, in particular, to small scale farming (and farm labouring) which remains a major activity for the majority of the world's dollar-poor. In addition to the risks (mentioned above), challenges to small scale farmers include:

(i) production and sales cycles which are long by the standards of other small businesses (exacerbating climate, pests, prices and transaction risks) and leading to significant seasonality in labour use, cash flow, food availability, prices, and risks, and affecting whole communities and their economies;

(ii) very high returns to timely labour at periods of peak labour demand, so that often it makes sense even for poor farmers to supplement their own family labour with hired labour if they have the means, even though they may seek to hire their own labour out just a few weeks or days later;

(iii) but, on the other hand, poverty prevents some people from allocating enough labour to their own land during labour peaks, forgoing valuable increases in their harvest, as shortages of food drive them to work for others;

(iv) technical progress and land pressure increase farmers' needs for inputs, but these individual input purchases are small scale (and therefore face high transaction costs) in situations where markets are poorly developed and risky (as noted above);

(v) technical choices which involve discontinuous switches between technologies and crops, with threshold prices and levels of performance above (below) which certain activities are (are not) profitable or viable, with these thresholds determining whether or not significant numbers of farmers demand or supply particular services and/or commodities;

(vi) farmers' input purchases also need seasonal finance, raising issues of how such purchases may be financed and how the risks of such finance to poor farmers may be mitigated; but

(vii) significant shares of output are for subsistence, generating welfare but not cash, so sales of outputs often fail to fully cover purchased input and labour costs;

(viii) finally, land is the basis of agriculture, and tenure arrangements affect farmers' ability to borrow, to expand or to exit with a lump-sum, via land market transactions, and also influence incentives for land improvement.

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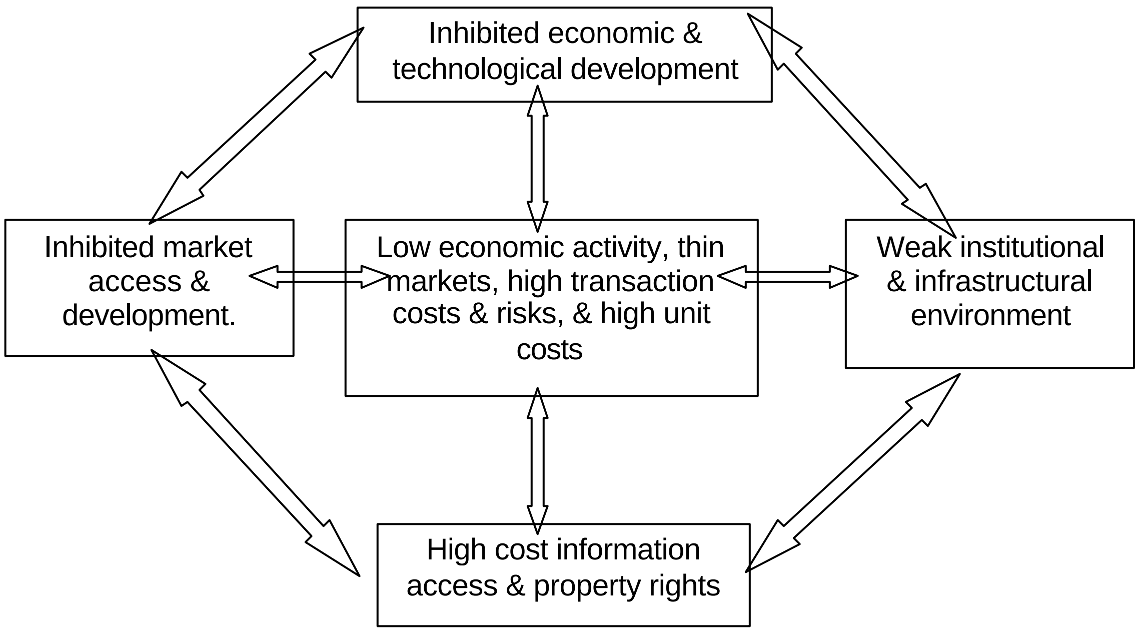
[4] Transaction costs are notoriously difficult to define but are usefully distinguished from transformation costs, the costs of making or growing things or physically providing services, including transport services. We emphasise here transactions costs incurred by parties protecting themselves against risks of transaction failure. However they may also involve costs incurred to protect a contracting counter-party against transaction failure (to induce them to enter a contract) and costs incurred in meeting licensing or other requirements of bureaucratic and rent seeking government agencies and officials. Reducing this last type of transaction cost is an important focus of market liberalisation policies, which we discuss later.

28. In poor areas there are particular off-farm challenges in input supply system development. Key inputs such as fertiliser are purchased by farmers in fairly narrow time windows with their uncertain input demands depending upon assessment of input profitability (affected by relative input and output prices and by unfolding climatic and pest behaviour during the season) and upon their ability to finance purchases (depending not only upon the general wealth and income status of individual farmers but also on their vulnerability to shocks affecting incomes and expenditure, on their access to credit, and on more general price and economic changes and events in the community). However if stockists are left with excess inventory, then this often cannot be disposed of for another year and deteriorates in storage. Stockists therefore face incentives to be very cautious in stocking and to cover their risks with high margins.
29. The challenges to greater input supply are related to challenges in delivery of financial services to farmers to support input purchases – small scale lending to dispersed farmers with uncertain credit demand and engagement in risky enterprises leads to high transaction costs for lenders and high risks of default. These have to be covered by high interest rates, which make borrowing more risky for farmers and hence both depress demand (reducing the scale of lending) and increase incentives to default – further increasing the costs of lending.
30. As problems in input supply and in financial service delivery to small scale subsistence farmers in poor rural areas are mutually reinforcing, so they can also have negative effects on output market development: without greater use of purchased inputs and seasonal finance, farmers' marketed surpluses will be relatively small (in terms of both individual and aggregate transactions) leading to higher transaction costs and risks for output buyers. This requires higher trading margins and these, with low profits depressing investment and competition, depress farm gate prices, further reducing farmers' demand for inputs and seasonal finance.

    The result of these difficulties facing rural economies and farming and service delivery activities within them is widespread 'transaction failure' (to use the terminology of section 3.1) which can lead to a 'low level equilibrium trap' as illustrated in figure 2, where constraints, lack of investment incentives and a stagnant rural economy reinforce each other. These transaction failures are particularly problematic where technical change requires significant investments at a number of different points along a supply chain (for example in delivery of seasonal finance, input and output services to farmers) for that supply chain to function.

Figure 2 The Low Level Equilibrium Trap in Poor Rural Areas[5]



[5] From Dorward *et al.* 2003

31. The implications of this analysis is that getting agriculture moving in poor rural areas faces serious coordination problems, as the returns to investment by any single investor are either depressed by lack of other complementary investments elsewhere in supply chains or are threatened by high risks from depending upon complementary investments made by small umbers of other investors. Dorward and Kydd (2004) suggest that such coordination failure problems may be addressed by technical or price changes that dramatically raise returns to supply chain investments ('shifting the threshold' of coordination failure), by large scale supply chain investments by governments or donors ('pump priming' a supply chain to reduce investments needed by private, commercial investors), or by explicit development of coordination mechanisms which reduce risks of opportunism and coordination failure. Such coordination will not be achieved by market mechanisms alone, non-market mechanisms will need to develop, either endogenously or as a result of exogenous interventions.
32. Endogenous 'local' coordination mechanisms may develop either through vertical integration (effectively larger scale commercial farms) or through local relations linking different local agents interested in investing in different activities in the supply chain, for example through farmer groups or through interlocking arrangements by (generally powerful) traders. In staple crops, where total supply chain profits are likely to be more limited than in cash crops, progress in local investment is likely to be slow (as low returns weaken both the incentives to set up coordinating institutions and the penalties for defection). Eventually, however, if there is sufficient growth in local coordination mechanisms then these may in aggregate reach the threshold level of total investment in the supply chain, enabling a transition into a market based growth path. Left to itself this process is, however, likely to be slow and fragile, highly path dependent and susceptible to political economy processes of rent seeking and to shocks affecting the total investment threshold.
33. Alternatives to slow and fragile endogenous local coordination processes are (a) externally assisted 'soft' coordination processes (for example involving state or NGO support for the development of farmer organisations, for trader associations, or for contract grower, nucleus/ outgrower and other interlocking systems) or (b) more extensive 'hard' coordination where a strong central coordinating body with a mandate from the state ensures investments across the supply chain with highly credible coordinated commitments.
34. Different coordination mechanisms, and indeed different processes for increasing returns to investments or for making large scale investments, will vary in their effectiveness in overcoming the low level equilibrium trap. They will also vary in the extent to which poor people are able to participate in new market opportunities

4.2 Exclusion

35. Improving mechanisms for the coordination of markets to promote agricultural growth is therefore critical to poverty reduction. There remain, however, questions about the ability of the poor to participate in and benefit, directly or indirectly form such growth. In the terminology of section 3.1 paragraph 18, access failures must be addressed as well as transaction failures. As described in section 3.1, 'access failure' by the poor may arise in three ways. First, as a result of a basic lack of the resources (such as suitable and sufficient land, skills, capital, or the ability to take risks) needed to participate in particular productive activities and their associated markets. Second, 'transaction failures' may also discriminate against the poor, as fixed transaction costs bear particularly heavily on small scale transactions and on people who lack social capital or who are socially or geographically marginalised. These two types of 'access failure' may be termed 'economic exclusion' and need to be seen within the context of wider problems of poor people's limited asset holdings and of endemic transaction failure. The third type of 'access failure' arises as a result of social exclusion or discrimination based on caste, class, tribe, religion, or gender.
36. Exclusion has implications both for the efficiency of market systems (as exclusion of potential suppliers or buyers reduces choice, competition, and entrepreneurial incentives) and for the participation of poor people in the benefits of economic exchange. We consider two main

processes of social exclusion in market systems – socially discriminatory segmentation and extractive interlocking.

37. *Socially discriminatory segmented markets*[6] involve discrimination that excludes particular people from access to particular transactions, or allows access only on less favourable terms, as a result of social characteristics such as gender, religion, ethnicity or social status (for example caste). It does not include discrimination by skills, productivity, or actuarial risk (in finance and insurance markets). Gender discrimination is widespread, with women often being paid significantly less than men (and the differential more than can be justified on productivity grounds) or being constrained from engagement in more remunerative activities or markets.

Box 2: Segmented Markets in India

In Madhya Pradesh, agricultural labour wage rates vary by crop, task, season, location, labourer and regional productivity. However, there are clear disparities in bargaining power, in information on opportunities and in terms of employment. Poorer and landless families take what work they can find locally and are less likely to hear of more remunerative opportunities further afield, nor do they have the capital to support migration for agricultural work. Women often receive between 20-50% less than men for identical work, except in low status work such as paddy weeding.

In Andhra Pradesh there are similarly segmented markets. Land leasing enables households to access land with assured irrigation but landowners prefer to lease out their land to their own caste. Where poor and lower caste households do successfully lease land from forward castes, the terms on which they do so are less favourable than the terms offered to higher caste households.

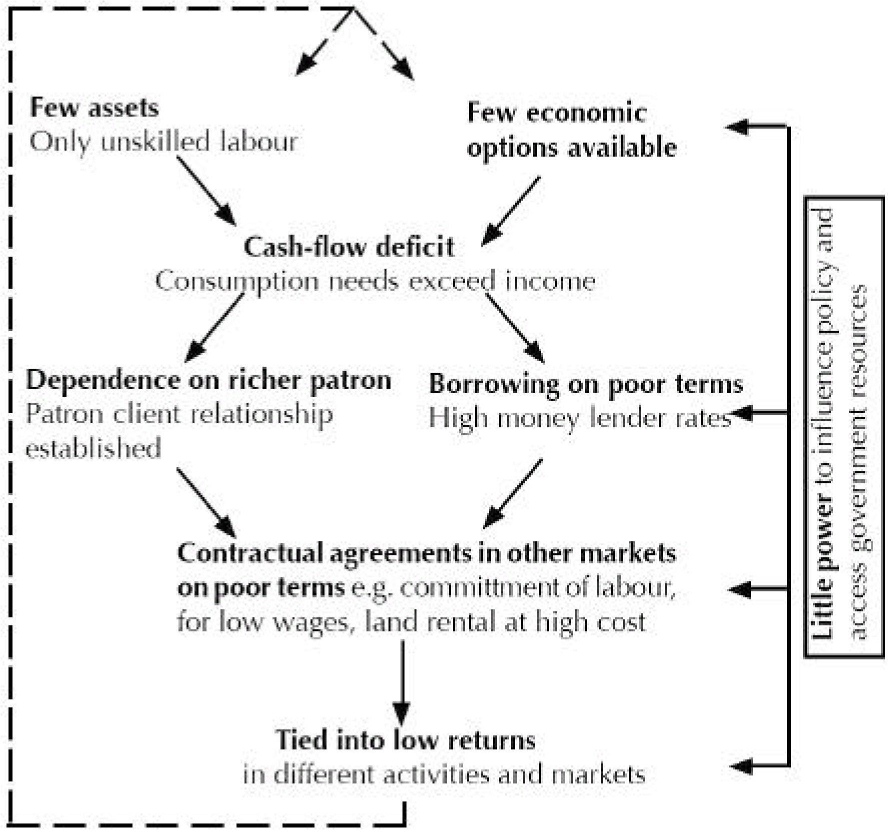
Source: Ashley *et al* (2003)

38. *Extractive interlocking* occurs when households enter into arrangements where they borrow from, work for, hire land from and sell harvests to a single landlord / moneylender and are excluded from entering into alternative and more remunerative transactions with other parties. Such arrangements normally arise in the context of transaction failures in one market (for example credit markets) such that poor households can only access this market through an interlocking arrangement which allows the other party to reduce their transaction costs and risks[7]. Where the balance of power between creditor and debtor is such that debtors are able to set adverse conditions in markets for finance, labour, products, rental and sharecropping then interlocking can impede entrepreneurial capacity and trap the poor in low-return activities (Figure 3). 'Interlocking markets are particularly open to abuse because the terms of all transactions are inter-related and the low returns offered are much easier to conceal from the moral and competitive scrutiny of others in society' (Ashley *et al,* 2003).

[6] Market segmentation is widely practiced in developed economies as a means by which firms extract higher prices from more wealthy consumers by, for example, imposing purchase conditions that differentiate between consumers on the basis of their willingness to pay. A common example relates to air travel tickets where conditions of a Saturday night stay over for cheaper fares discriminate against business passengers with a higher willingness to pay. Such segmentation can benefit poorer consumers by making it worthwhile for companies to sell some of their products or services to poorer consumers at marginal rather than total cost. allowing sales

[7] As with segmented markets, interlocking transactions are not inherently discriminatory, and are not restricted to poor rural economies. Suppliers' credit is a form of interlocking that is found in developed market economies, where it can enhance small firms' access to finance. Dorward et al (1998) discuss the conditions under which interlocking will be extractive or beneficial, the latter expanding access of poor households to finance, input and output markets under a restrictive set of conditions.

Figure 3 How the poor get trapped in interlocking markets



Source: Ashley *et al* (2003)

39. As with segmented markets, interlocking transactions are not inherently discriminatory, and are not restricted to poor rural economies. Suppliers' credit is a form of interlocking that is found in developed market economies, where it can enhance small firms' access to finance. Dorward et al (1998) discuss the conditions under which interlocking will be extractive or beneficial, the latter expanding access of poor households to finance, input and output markets, although the conditions under which this will occur are quite restrictive. As will be discussed in the next section, some parastatals in Asia and Africa used interlocking arrangements to offer farmers credit, inputs and produce marketing services. Some of these arrangements were highly effective in promoting agricultural growth, whereas others became mechanisms through which vested interests within inefficient parastatals taxed and held back smallholder agriculture. Interlocking can also offer poor households valuable opportunities for coping with risks (Deb et al 2003). Policies that stimulate competition between landlords and traders and that reduce the cost of information or make wage rates and interest rates more transparent can improve terms of engagement for poor people as it is less easy for lenders and landlords to set and conceal low wage or high interest rates when they are subject to greater competition and information sharing. However increased competition without some degree of competitive coordination can undermine beneficial interlocking arrangements to the extent that they break down completely, restricting rural households' access to some markets (Dorward et al 1998; Poulton et al, 2004).

5 States, markets and pro-poor agricultural growth in the 20th century

40. In section 3 it was argued that agricultural development has a unique and critical role to play in stimulating pro-poor growth in poor rural areas. The analysis of section 4, however, suggests that transaction failures and access failures both present significant constraints to pro-poor agricultural growth in poor rural areas. In this section we describe dominant agricultural policies as they have evolved from colonial and immediately post-independence policies of state intervention in markets and exchange systems to the structural adjustment and liberalisation policies that are dominant today. We consider (briefly) different policies' varied origins, political economy, structures and outcomes.

41. Dominant (agricultural) development policy in poor rural economies over the last forty years or so can be (simplistically) divided into two broad phases: state- and then market- led development[8] (with most countries experiencing an extended period of adjustment between). These two policy phases reflect changes in dominant economic policy paradigms, the first phase emphasising problems of market failure in poor economies (and promoting state interventions to address these market failures), the second phase emphasising state failures when intervening in markets, and promoting reliance on the private sector and markets with state withdrawal from market interventions. Continuing difficulties with agricultural growth in liberalising economies in Africa have led more recently to increasing recognition of another sphere of state failure, in supporting the conditions necessary for markets to work.

5.1 Successes and failures of state intervention in and withdrawal from agriculture

42. In the immediate post- independence period governments needed to act, and to be seen to act, to promote agricultural and rural development. The private sector was often weak (in organisational capacity and in access to capital and human resources) and large scale private investments in rural areas were generally risky and unattractive, partly because simultaneous investments were needed in communications infrastructure; input and output trading; research and extension; and in farmers' input purchases and production. It was widely believed, however, that state intervention could coordinate smallholder farm activities with state controlled trading, infrastructural, research and extension investments. Through such coordination it could then both reduce investment risks and where necessary take them over from the private sector. It could also access public sector finance sources and invest in organisational and human resource development. State activism also matched a common mistrust of private companies (which were often seen to be associated with exploitation by colonial or local elites), socialist suspicions of the private sector and of markets, confidence in the ability of the state, and dominant economic development theories stressing the importance of industrial sector development (and the taxation of agriculture to finance this). State activism was also frequently a convenient tool for extending personal, party and state power and patronage into rural communities.

43. As a result, in recent history, across a wide swathe of the world's poor smallholder agriculture, the state has intervened to stabilise output prices for food and cash crops, and to provide farmers with access to finance and supply inputs (which have frequently been subsidised). Models of intervention have varied enormously across region, crop and time period, involving: (i) price interventions in the form of input and finance subsidies and on the output side price supports (and sometimes fixing of prices below world market levels) and ; (ii) organisational interventions (parastatals, state-sponsored cooperatives, and agricultural finance organisations) which went well beyond what was necessary purely to administer price interventions (Dorward *et al.* 2004). As even the most sceptical observers conclude (for example Bates 1981; Krueger *et al.* 1988) the net effect of these "agricultural" policies has been to subsidise agriculture, although individual crops have been taxed and substantial shares of the benefits have been captured by small sub-groups of farmers and by non-

[8] These two phases of dominant development thinking, about the role and nature of the state and markets in development, of course interact with other progressions – concerning the goals of development, the relative importance of different sectors, the nature of growth needed for development, etc.

farmers. These subsidies also have to be seen in the light of economy-wide polices that led to an overall bias against agriculture, notably exchange rate over-valuation, which swamped the support which was received from agricultural sector interventions.

44. Agricultural development and poverty outcomes from this state-led development phase are mixed. In some (mainly African) countries large government expenditures and activity in agricultural development led to very little agricultural growth and were little more than a major drain on government budgets. During the early 1980s donor support waned and turned to hostility towards the whole state led development approach[9].

45. In other (mainly Asian) countries, however, these state-led systems were home to the most dramatic and widespread processes of agricultural growth and poverty reduction in history. Dorward *et al.* 2004, in a review of policies in successful and partially successful green revolution areas found that 'the vast majority of transformations involved, in their early stages, government interventions to stabilise output prices and maintain them somewhere between import and export parity prices, and to subsidise input supply and credit' (Dorward *et al.* 2004, p. 80). They therefore postulate that there are certain necessary conditions for intensive cereal based transformations and that in addition to high yielding technologies there need to be effective input, output and financial exchange systems offering producers stable and reasonable returns to investment in 'improved' technologies, together with reasonably secure and equitable access to land. They suggest that in successful green revolutions government intervention played a critical role in 'kick starting' markets, by establishing coordinated exchange systems at a critical time when markets could not (see figure 4). However, even in these areas parastatals and other market interventions tended to become inefficient and ineffective. Their very success led to large fiscal costs in price support, and they then became an impediment rather than a stimulus to further growth. Nevertheless the political economy of the benefits these interventions offer to politicians, bureaucrats and other interest groups makes them difficult to reform.

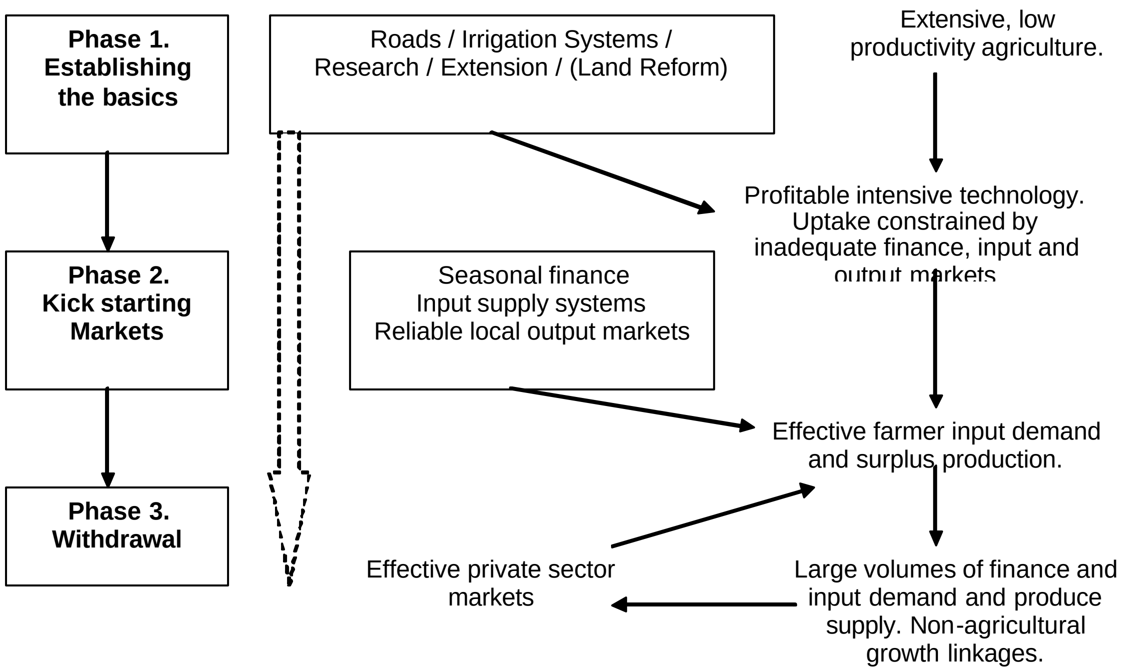


Figure 4 **Policy phases to support agricultural transformation in favoured areas** [10]

[9] The Berg report (World Bank 1981), for example, marked a watershed in the development of the Washington consensus on economic policies in Africa.

[10] From Dorward *et al.* (2004)

46. As policy analysts' and donors' became increasingly aware of the difficulties faced by parastatals in both successful and failing agricultural transformations, a critique of state intervention in developing country agriculture gained prominence from the 1970s and provided intellectual backing for the liberalisations which took place i from the 1980s. The critics saw government intervention as:
    (i) allocatively inefficient or distorting, in the sense of sustaining activity in the domestic economy which produced outputs at a higher resource cost than would have applied if these had been procured from the world market;
    (ii) anti-competitive, maintaining oligopolistic structures which held back market entry, stifling initiative and investment;
    (iii) full of harmful vested interest including those of politicians, officials and (in some versions, for example Bates 1981) richer farmers;
    (iv) a tempting instrument to governments wishing to suppress food price increases;
    (v) a large net drain on public resources, inhibiting macroeconomic stabilisation and diverting public expenditure;
    (vi) providers of a bad service to farmers (with late input delivery, slothful produce purchase and payment, and corruption at the buying point)
47. Critics of parastatals were correct in these observations and, in the African case at least, the status quo in the 1980s was indefensible and often unsustainable. Based largely on what is increasingly recognised as a naïve application of neo-classical economics' theories about the efficiency of competitive markets, the standard prescription of privatisation and liberalisation often provided some quick fiscal relief. State activities were to be limited to overcoming conventional market failures ('public good failures' in section 3.1 paragraph 18) in the provision of non-excludable and non-subtractable 'public goods' (in agriculture commonly considered to include research into pro-poor technologies; dissemination of information about these technologies and about markets; market regulation; and provision of physical infrastructure such as roads and telecommunications). International donors therefore promoted (with a mixture of government and NGO support and opposition) actions to privatise or dismantle agricultural marketing parastatals (generally de-linking credit, input and output markets), to deregulate these markets, and to eliminate credit, input and output subsidies. These agricultural sector reforms tied in with economy wide needs for a generally stable and favourable macro-economic environment with reduced public expenditure and removal of tariffs and controls that led to over-valuation of exchange rates. With time increasing emphasis was given to "social action funds" to assist poor short-term losers from the stabilization and liberalization processes and, more recently, to development of institutions supporting markets (see for example recent World Development Reports, World Bank 2000a).
48. Agricultural adjustment and market liberalisation have not, however, been generally successful in 'getting agriculture moving' in poor rural economies which have not already achieved an agricultural transformation. The agricultural sector in LDCs over the last thirty years or so shows low rates of growth in the 1980s and 90s, and indeed negative rates are recorded for value added per capita over most of the period (World Bank 2000b; FAO 2000; Dorward and Morrison 2000). LDC performance (with a preponderance of Sub-Saharan African countries) contrasts with Asian performance where agricultural growth advanced ahead of population growth, with continuing increases in labour productivity in agriculture. Sub-Saharan Africa also stands out for having increased its area under cereals dramatically at the expense of other crops, for reducing the rate of fertiliser use, and for achieving more than 70% of its limited increased cereal production from area (as opposed to yield) increases (World Bank 2000b;FAO 2000; Dorward *et al.* 2001). Although there is considerable heterogeneity within each region, there is a striking correspondence between these patterns of agricultural growth and regionalised patterns of poverty reduction and persistence in recent years, with poverty incidence and severity generally falling in Asia (though only slowly in South Asia) while remaining static or increasing in Africa Dorward *et al.* 2004.

49. While few would argue that the pre-liberalisation situation could or should have been sustained, liberalisation has not delivered the substantial agricultural growth which is needed to drive rural poverty reduction and increased food security. Despite some benefits (such as reduced food prices for processed staples for poor consumers in southern Africa - see Jayne and Jones 1997 - and positive impacts in the supply chains for some cash crops in some countries - see Poulton *et al.* 2004 for a discussion of cotton, for example) there has been a notable lack of success in developing input, output and financial markets offering attractively priced, timely and reliable services that are critical for more intensive crop, and particularly cereal, intensification.

5.2 Lessons from experience – markets and hierarchies in exchange and coordination in poor rural economies

50. While the narrative above regarding agricultural market policy implementation and agricultural growth over the last 50 years or so is generally agreed, the role of the state in promoting green revolution successes in some countries and the reasons for the (more widespread) disappointment with liberalisation are the subject of continuing debate. In this section we consider principal positions in this debate.

51. There is general agreement regarding some necessary but not sufficient conditions for pro-poor agricultural growth to act as a growth driver in a poor rural economy:
    - Labour demanding productive opportunities that drive growth and arise from access to new exchange opportunities (or markets) and/or to new technologies that raise productivity either for tradables or for non-tradables with high average budget shares
    - Some minimum degree of good governance
    - Some minimum level of (mainly communications) infrastructure

    It is also widely believed that pro-poor growth is generally supported by more equitable access to education, land, health services and to other productive resources such as water, and by conditions enabling the poor to participate in growth supporter activities, as discussed earlier in section 3.1.

52. The roles and importance of other factors affecting failures in market liberalisation's implementation and outcomes have, however, been hotly contested, as have appropriate policy responses to these failures. The main explanations for liberalisation failures can be described in terms of (a) partial liberalisation and weak institutions and (b) an institutional critique of market liberalisation. The first explanation is broadly supportive of the liberalisation agenda but critical of its implementation, the second is more critical of liberalisation's conceptualisation of markets as efficient and effective exchange mechanisms in poor rural areas. Here, it is argued, markets are particularly prone to transaction failures (as defined in section 3.1 paragraph 18) so that explicit attention to the development of other exchange and coordination mechanisms is needed.

53. The *partial liberalisation* view argues that failure is not the result of the liberalisation agenda, but of failure to implement it thoroughly (see, for example, Kherallah *et al.* 2000; Jayne *et al.* 2002). The main thrust of the 'too little liberalisation' argument is that partial rather than complete withdrawal of the state together with real or perceived threats of policy reversals and continued price controls and competitive advantages for parastatals have depressed returns and increased risks to private sector investment. Alternatively (or additionally) the *weak institutions* view explains slow market development in terms of weak institutional support to market and private sector development (for example World Bank 2002; World Bank 2003) with cultural, political and legal factors undermining clear property rights and hence private investment incentives. Here the liberalisation agenda that tried to escape the problem of state failure in market interventions has run up against different problems of serious state failure, now in delivering public goods - the institutions and infrastructure needed for privatised competitive markets to operate in the challenging conditions where poverty is most intractable.

54. Both 'partial liberalisation' and 'weak institutions' views are essentially supportive of the liberalisation agenda and are consistent with its basic neo-classical tenets, although (particularly in the latter case) recognising the importance of state support for institutional

public goods necessary for markets to work. Neither view questions the basic narrative of orthodox market economics regarding the different forms of economic organisation discussed earlier - that gift exchange has become archaic in all but the remotest communities, and that although large hierarchies exist everywhere, the interests of economic efficiency are best served by struggling against them through privatisation, contracting-out and pro-competition policy. In contrast, the market is seen as the dominant mode of organisation in the advanced economies and by implication the most efficient. The central challenge is then to extend this to poor countries, and in particular, their poorer communities, in short, to "make markets work for the poor".

55. This view then leads to a policy agenda to complete the market liberalisation process, accompanied by other measures to address problems in financial markets and affecting remote producers. These measures include increased investment in infrastructure, in legal and market institutions, and in agricultural support organisations (research and extension); promotion of smallholder production of export crops; removal of advanced countries' protectionism and poor countries' own restrictions on external and internal trade; tackling concentrations of local power which force the poor to access markets (such as credit) on highly adverse terms; short term targeted support to vulnerable groups in remote areas (for example safety net transfers); credible sustainable macro-economic policies; and institutional innovations for input credit, such as contract farming and group approaches [11] (World Bank 2000a). The centre-piece of some versions of the *"markets for the poor"* paradigm is an emphasis on replacement of non-tradable rights to resources based on community membership with tradable property rights to land, water and buildings. Tradable property rights, it is argued, can be leveraged to provide the poor with the finance to develop business or invest in their human capital.[12]

56. The institutional critique of market liberalisation, on the other hand, recognises that as markets are pervasive features of nearly all economies, so it is obvious to seek to improve their interactions with poor people. However it also recognises that as markets are only one mechanism for allocation it is also important to enquire into others. Are these other mechanisms simply anachronisms or alternatively are they structures crafted to defend the interests of the privileged against the poor? In either case non-market allocation mechanisms play important roles and so are likely to be long term features of the economy. It is important then to ask how these can be made to operate in more pro-poor ways and, from the standpoint of economic efficiency, where the "optimal balance" lies between market and non-market allocation, and how this balance may be affected by technical change and policies. Does what constitutes an "optimal balance" alter if extra weight is given to the problems of poorer communities? Sometimes market and non-market allocation mechanisms complement each other, but sometimes they work badly together, mutually undermining performance. How then can we understand these matters and accentuate the positive? These questions contribute to a rich institutional paradigm, with a strong empirical and theoretical basis in both richer and poorer economies.

57. In richer countries, the development of advanced market economies has involved, and depended upon, dramatic growth in hierarchical exchange and coordination systems (in

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[11] Ironically, support for institutional innovations such as contract farming, group approaches and micro-finance systems sits uneasily with more general support for competitive market systems, as these innovations rely on non-market and/or hybrid exchange and coordination systems (involving hierarchy and gift exchange) . Although justified by the special problems facing poor and remote producers, this implicitly questions the general appropriateness and superior performance of competitive market exchange and coordination mechanisms in agricultural supply chains in poor rural areas.

[12] De Soto (2000) a widely-known and influential advocate of "*markets for the poor*" strongly promotes this view: "*five-sixths of humanity do have things, but they lack the process to represent their property and create capital. They have houses but not titles; crops but not deeds; businesses but not statutes of incorporation. It is the unavailability of these essential representations that explains why people who have adapted every other Western invention, from the paper clip to the nuclear reactor, have not been able to produce sufficient capital to make their domestic capitalism work"*.

private, state and civil society organisations) and in this sense non-market allocation plays a larger relative role in richer than poorer countries (other than those which are centrally planned, or have been until very recently). A very substantial proportion of transactions in these countries are not conducted in competitive markets but instead are conducted within firms and in long term relationships between firms (see for example Coase 1992; Williamson 1985, 1991; Hall and Soskice 2001). Globally the proportion and amount of transactions occurring within firms is growing as two thirds of world trade is either within transnational corporations (TNCs) or associated with TNCs (United Nations 1999 cited by Yusuf 2001). Richer countries also differ in the way that they rely on markets for economic coordination. Hall and Soskice 2001 draw a distinction between Liberal Market Economies or LMEs (where activities are coordinated via intra-firm hierarchies and competitive market arrangements) and Coordinated Market Economies or CMEs (where there is more use of “non market relations to coordinate endeavours and to construct core competencies”).

58. Further evidence of the importance of the development of hierarchy in developed exchange economies is found in poor economies, which generally lack large formal hierarchies in state or private sector organisations. Fafchamps 2004, for example notes that markets play a greater allocative role in Africa than in developed economies. In the grain trade of the USA there are many fewer intermediaries between producer and consumer than in liberalised markets in Africa: in other words the grain trade in Africa is generally more market intensive. Yet market exchange in Africa is generally *“costly, cumbersome, time-consuming, and unpredictable”.* There are a number of explanations for this, including weak transport and communications infrastructure; inadequate contract enforcement and insufficient investment in the facilities required by each supply chain. But, for Fafchamps, the plethora of market participants and the lack of hierarchy is a critical source of weakness.
59. Comparison of the importance of hierarchies in richer economies and their absence in poorer economies allows us, following Fafchamps, to contrast two stylised exchange systems. In both cases there are two players “A” and “Z”, with A located in a rural area and Z located in another (rural or urban) area. Following standard neoclassical economics, both will gain in welfare if they can transact, while the economy as a whole will move to a higher level of allocative efficiency. The challenge is for them to have sufficient information to find each other, and for the mechanisms to exist for relatively secure and low cost (and hence worthwhile) transactions, bearing in mind that there be high costs for them to meet in person and/or that the transaction could involve one side advancing credit.
60. We first postulate that A is located in a poor rural area in a developing country with little private sector or government hierarchy and with government hierarchy, to the extent that it exists, ineffective. Transport and communications are poor. Under these conditions contract enforcement will be virtually non existent outside relatively small communities and reliable information about counter-parties will be limited to personal contacts. As a result exchange transactions will occur largely through an *atomistic, relational market system*. Most market transactions will be of a “flea-market” character (a restrictive form of spot market where both counter-parties have to be present so the buyer can inspect and the seller secure immediate payment). Individual transaction volumes will be low, as will total transaction volume handled by each party. ‘Bulking up’ will be a function of (a) the number of transactions each individual can engage in (limited by the number of individuals they can transact with and by access to capital) and (b) the number of links in the supply chain. More sophisticated forms of exchange required for economic development, particularly borrowing and lending are possible, but only through personal knowledge, building up trust in counter-parties over time with continued transactions and/or shared membership of social organisations (with development of social capital often through gift exchange). Individuals can only develop such trust relationships with a small number of other individuals, so choice and reach in these non flea market transactions will be very limited. Consequently if there is trade between A and Z it will probably be through a number of intermediaries. There may be complete market failure, or instead a chain of transactions with many stages, high transactions costs, and meagre returns to each player.

61. We now postulate that A is located in a more prosperous rural area where there are some medium and perhaps large hierarchies for trade, which may be private or government owned. Core government functions such as contract enforcement and provision of public goods are somewhat more effective. As a result exchange transactions will occur largely through a *market and hierarchy reputational system* as hierarchies can use command and control mechanisms to coordinate bulking, storage and transport activities and capture economies of scale to reduce transaction costs. To transact in impersonal market exchanges, hierarchies invest in their reputations (e.g. for compliance with contract conditions, quality or goods) and thereby provide information which gives unacquainted parties the confidence to exchange with them (with hierarchies' investments in reputations replacing individuals' investments in social capital as a means of building trust). This may be buttressed by some general improvement in enforcement mechanisms but is not dependent on them. Under these conditions A can exchange with Z through only one intermediary, the hierarchy, with lower transactions costs along the chain. Welfare gains are higher (although trader intermediaries in atomistic, relational market systems will be squeezed out, possibly to become employees within expanding hierarchies).
62. These stylised exchanged systems, based on empirical observations, challenge traditional economics' mixed view of hierarchies, which recognises on the positive side that larger hierarchies may be the organisational form required to obtain the returns to scale inherent in particular technologies, but on the negative side that (a) they may be a means of monopolising a sector in the interests of their owners, managers and/or workers, against consumers and (b) they are inherently less efficient than competitive markets, as managers incur costs in supervising workers who often find that it is in their interest to shirk orders (whereas markets should automatically provide incentives that overcome shirking, with competition squeezing out shirkers). This essentially "neoclassical" view implies that policies supporting welfare and growth should push hard to increase the role of market competition, at the expense of hierarchy, except for the relatively few cases where this is precluded by technological economies of scale.
63. To explain the growth of hierarchies, modern economics has begun to look for other balancing efficiencies in hierarchy, beyond technological economies of scale. Three broad lines of explanation are particularly relevant to understanding the relationships between markets, hierarchies and economic growth in poor rural economies. First, the idea of economies of scale has been extended beyond technology and physical production processes to include a much wider range of issues including spreading the benefits from exceptionally talented or entrepreneurial individuals and reducing unit transaction costs on single large scale or multiple small scale exchanges. Second, the high costs and sometimes near impossibility of using tightly specified contracts, with each item enforceable by law, is recognised in the need for "incomplete contracts". This arises where knowledge needed to specify contract outputs and terms is not available (due to uncertainty about the work) or is only held by specialist suppliers. Therefore for repetitive but varied transactions (such as professional work in complex organisations, supply chains to supermarkets or operating a railway network) it may often be more effective to simply agree to work together, for example with a general employment contract which states that an employee (or a component group) will accept "reasonable" orders from a superior, than to attempt to draw up and then monitor and enforce specific tightly specified market exchanges. In such circumstances command and control within hierarchies can prove more efficient in coordination and exchange, and in the conflict resolution that this requires, than contracts and courts.
64. A third major and related argument for hierarchical exchange and coordination mechanisms arises from asset specificity in investments. Asset specificity describes a risk which investors face in transforming money into real assets (such as processing plants, specialised training, fruit orchards, farm animals or bags of fertiliser) which, if the enterprise fails, have little value when sold or reallocated to other uses. Large investments in highly specific assets are therefore very risky, with a major source of risk often being the ability of the enterprise to buy inputs and sell outputs on a scale and at prices that will yield a satisfactory return.

65. These three explanations of the benefits of hierarchical over competitive market exchange and coordination systems (economies of scale, incomplete contracts, and asset specificity) are particularly relevant to the operation of markets needed to drive smallholder agricultural growth in poor rural areas given the challenges to smallholder agricultural development discussed earlier in section 4.1.
66. A key point that emerges from this is that asset specificity is a major problem in ways that are not encountered in more developed economies. This is because the difficulties in input and financial service supply chains in poor areas together with the mutual dependence of investments in these activities on investments in output trading and in farmers' input use mean that such investments become highly specific assets. These investments will therefore be inhibited unless effective coordination mechanisms can assure investors that other gaps in the supply chain will be plugged simultaneously and will do business on reasonable terms. Asset specificity is thus a core issue which, by inhibiting market entry, prevents competitive market development. Furthermore, poor information and weak and costly contract enforcement mechanisms make tightly specified contracts problematic: relationships built on trust (developed through gift exchange and acquisition of social capital) and/or hierarchy allow more effective and flexible use of 'incomplete contracts'. Finally, shortages of information, capital and entrepreneurial skills in poor rural economies mean that larger organisations with hierarchical relations can achieve important economies of scale in acquiring and using these resources, and in reduced costs in larger scale market transactions: economies of scale that are not available to smaller enterprises.
67. The principal lesson which emerges from this discussion of the institutional critique of liberalisation policies is that there are severe difficulties in relying on the rapid development of competitive markets for development of coordinated exchange in input, financial service, and output markets in supply chains supporting technological change, productivity increases and growth in smallholder agriculture in poor rural areas. Sometimes the problem can be solved by a large private firm investing in integrated facilities across the supply chain. Empirical evidence suggests that such large scale private investment is rare in poor countries (and would be discouraged by a neoclassical approach to governing markets) except in the production of cash crops (such as tea, cotton or sugar) which require large scale investments in processing facilities. The alternative is that the necessary coordination be achieved by non-market coordination by existing players within the sector and/or by government action. An example of government action would be a parastatal investing and operating across stages of the supply chain. Non-market coordination by other players might involve farmer organisations forming strategic relationships with specific input suppliers, financiers and output traders, or by trader associations or civil society or government agencies promoting (and perhaps enforcing adherence to) coordination agreements between different players in the supply chain.
68. These arguments therefore suggest that in order to develop agricultural supply chains for smallholder farmers in poor rural areas there is a need for (i) greater emphasis on hierarchy and hybrid relations for the development of enterprises offering smallholder farmers access to critical exchange opportunities, and (ii) greater emphasis on hybrid relations between small agricultural producers and hierarchical service providers. Successful pre-liberalisation policies discussed earlier in section 5.1 provide an example of such systems, as do outgrower and contract farming schemes for cash crops. The failure of liberalisation policies is also explained, in part, by the absence of (and indeed opposition to) policies promoting appropriate hierarchies and hybrid relations and, it is argued, the need for such relations should be explicitly recognised and formally built into liberalisation policies - rather than 'slipped in' almost surreptitiously for pragmatic reasons in support for farmer or trader (or agri-business) associations, without more comprehensive analysis of the coordination challenges facing these associations, or of alternative or additional mechanisms which could achieve more effective coordination and market access.

6 The Policy Agenda

69. Our historical and theoretical examination of the role of markets and exchange in pro-poor agricultural growth suggests that policies aiming to make agricultural markets work for the poor should
    - be concerned more broadly with promoting coordinated exchange within which promotion of improved market performance and reach is a critical topic, alongside promotion of other mechanisms of coordinated exchange;
    - address arenas of exchange needed not only for the direct intensification of agriculture by smallholder farmers in poor rural areas but also consider ways in which upstream, downstream, consumption and investment linkages can be promoted (or, to put this another way, attention should focus not only on promoting agricultural growth drivers and supporters, but also on non-agricultural supporters of agricultural growth); and
    - change over time as markets and economies develop and as the importance and role of agriculture in pro-poor growth diminish.
70. Policies should therefore address
    - development of supply chains supporting smallholder agricultural intensification of food and cash crops (financial services, input supply, output purchases and processing, transport systems, research and extension are all important here);
    - access of smallholder farmers to those supply chains;
    - land tenure arrangements;
    - labour utilisation in agriculture and in non-agricultural activities; and
    - development of financial services.
71. Policies also need to consider other issues such as the effects of changes in international markets and of national policies affecting international trade, the role and effects of food aid and other forms of emergency and safety net support to the poor, and particular difficulties that limit access by disadvantaged groups.

6.1 Supply chain development to support agricultural intensification

72. The very different explanations for the disappointing performance of market liberalisation policies in poor rural areas lead to some common and some divergent policy prescriptions regarding the development of supply chains necessary to support smallholder agricultural intensification and of smallholders' access to those supply chains. There is agreement on the need for state investment in research and technical extension and in infrastructure (such as roads and communications), together with improved governance and institutions supporting enforcement of contracts.
73. 'Partial liberalisation' and 'weak institutions' critiques of the implementation of liberalisation place particular emphasis on policies aimed at promoting the development of competitive markets in agricultural supply chains and smallholder farmers' access to these markets. These include

    promoting small business development through training, promotion of agribusiness associations, financing (including development of instruments such as inventory credit), and linkages with larger scale (wholesale) input suppliers and produce buyers;

    supporting farmer organisations (to promote supply chain coordination and economies of scale and improved bargaining power in exchange);

    investments in market information systems, market infrastructure development, commodity exchanges, and insurance systems to address vulnerability to shocks (although these face major problems of moral hazard & adverse selection);

    reduction of transaction and business establishment costs incurred in meeting the licensing, duty and other requirements of bureaucratic and rent seeking government agencies and officials[13]; and

[13] Ellis *et al.* 2003 has identified increases in such transaction costs as a major problem with decentralisation in poor rural areas.

further liberalisation, with transparent commitment to complete withdrawal of the state from market interventions.

74. With the exception of the last, these policies are generally supported by the more fundamental institutional critique of liberalisation itself. However the mechanisms and thrust of their implementation may be different as they are placed in the context of (i) an evolutionary view of changing roles for markets and other coordinated exchange mechanisms in poor rural economies and (ii) recognition of the importance of developing a variety of forms of hierarchy and hybrid relations for coordinated exchange. Indeed rather than doing away with existing hierarchies, emphasis is placed on maintaining and transforming critical elements of these hierarchies when implementing policies to make markets work better for the poor: 'making market systems work for the poor' in poor rural areas is seen to involve a shift from 'atomistic, relational market systems' to 'market and (effective) hierarchy reputational systems', and therefore one (if not *the*) critical task in this is to make *hierarchies* work better for the poor.

75. The first 'broad' policy message is then the need for a policy framework that recognises the importance of stages of development and of endogenous 'political economy' processes in institutional change. These 'stages of development' demand different types of policy and institutional development at different stages (Adelman and Morris 1997, Dorward *et al.* 2004) – for example although the green revolution areas of India seriously need to liberalise and reduce agricultural support, current Indian debates and advocated solutions should not be carelessly "copied across" to most SSA smallholder agriculture. The endogenous dynamics of policy and institutional development at these different stages also need to be allowed for in policy analysis: it is not enough to argue, for example, that agricultural liberalisation policies have failed because governments have not 'let go' and implemented these policies thoroughly enough: policy analysis must recognise the legitimate concerns which prevent governments from completely 'letting go' of, for example, staple food markets.

76. The second broad policy message is that coordination mechanisms need to be given a much more prominent place in policy thinking, which should be based on practical and realistic business models for private investors. Critical in this is the identification of 'critical missing links' causing coordination failure across a supply chain and the development of cost effective mechanisms for lowering risk and raising expected secure returns to a level that provides business opportunities for production and exchange investments that both promise and deliver returns sufficient to attract private agents to invest in these missing links. Therefore In addition to the various measures outlined above (in paragraph 73) to support market development, this analysis calls for explicit consideration of support for (regulated) monopolies, franchises, trader and farmer associations, grain reserves, price intervention and guarantees, together with price support and input/output/credit subsidies to increase basic supply chain profitability for the private sector for commercial service provision in rural areas. Many of these proposals rub against neoclassical prejudices but they should not be automatically ruled out: non-standard contractual forms, regulated monopolies and a prominent coordinating role for the state (and others) may all have their place, though they must also be approached with great caution to avoid the mistakes and failures of the past, with rigorous design and governance.

77. Another aspect of emphasis on the importance of hierarchies in supporting markets for the poor is that where ineffective state hierarchies are stifling development so that 'liberalisation' is necessary, the process of liberalisation needs to be carefully designed to maintain, and indeed make use of, critical elements of existing hierarchies[14]. Pro-poor market liberalisation then involves the management of a transition from reliance on state hierarchies to reliance on other coordinated exchange systems, or reform of these state hierarchies. A 'dual track' approach to this has proved successful in some sectors in some transition economies (such as China), where market reforms were introduced initially only for clearly defined private (as opposed to state) activities to introduce incentives and mechanisms promoting efficiency

[14] Bezemer *et al.* 2003 make the same point with regard to the importance of social capital providing links among firms and individuals, and the losses to the economy from the destruction of such links during liberalisation processes in transition economies.

alongside state marketing systems: indeed state hierarchies provided seasonal finance for private production. State hierarchies were then only dismantled slowly and in stages when there had been considerable market development, and alternative exchange mechanisms had become established (see for example Lohmar *et al.* 2003). In this 'dual track' process, 'partial liberalisation' has not been an impediment to the development of a market economy but, with the right sequencing, has been critical to its success. There are, however, considerable difficulties in achieving such a transition, especially as this is normally accompanied by other transitions in poor rural economies – from traditional to new activities, from multi-activity livelihoods to a diverse range of more specialised livelihoods, from dominance of staple crops production to production of other agricultural commodities and from dominance of farm to non-farm activities.

78. Governments, while having an overall responsibility for encouraging coordination as a public good are not the only agents who can promote it: producer, processor and trader associations and NGOs all have interests and potential complementary roles. Whatever the agency by which coordination is promoted, however, changes should address missing markets in the short term while laying the basis for longer term market development and reduction of transactions costs and risks for key players in supply chains. They also need to address constraints on a sufficiently broad front, not relying on 'silver bullet' technologies or individual business / institutional innovations without complementary improvements in institutions and mechanisms for coordination. The timing of proposed interventions is also critical, as they must build on existing opportunities, be sufficiently large scale and long term to change perceptions, but not attract rent seeking. Planned complementary roles of government and of other players should have clear objectives, roles and mechanisms for intra-sectoral non-market coordination, and clear exit and transition pathways.

79. While the discussion above has (implicitly) focussed on policies addressing market related problems in the intensification of staple food crop production in poor rural areas, many similar issues arise in relation to increasing production of traditional cash crops, of horticulture (both for domestic and international markets) and of livestock. Differences arise in traditional cash crop production involving large scale processing investments where large scale private investments may provide integrated supply chain services to farmers (as noted earlier). Here institutional arguments identify on the one hand the benefits of competition between large scale processors in encouraging them to improve the performance and terms of services offered to farmers, but on the other hand problems that arise when too much competition undermines their incentives to provide integrated services to farmers (Poulton *et al.* 2004). Horticulture and livestock export markets generally place heavy demands on produce quality control standards and processes and on consistent produce flows. These are often expensive and difficult for smallholders to implement, and require strong farmer organisations if the necessary economies of scale are to be achieved to make it worthwhile for buyers to source from them (as opposed to larger scale farmers). Adherence to quality control in horticultural and livestock production for domestic markets is not currently such an issue, despite the growth of supermarkets and their supply chain demands (Weatherspoon and Reardon 2003), but a critical constraint here is often the size of the market, which remains small in a poor economy unless there are other growth drivers raising consumer incomes and hence demand for these products. Horticultural and livestock production are also often more able to use micro-finance systems to raise working capital.

6.2 Land, labour and financial services

80. We do not discuss individual markets (labour, land and rural financial services) in any detail in this paper. However better operation of land, labour and financial exchanges is critical for pro-poor agricultural growth, as it is largely through the linkages from agricultural growth to the non-farm economy that smallholder agricultural growth can be pro-poor. Land, labour and financial exchanges must therefore allow the poor to move between farm and non-farm activities and engage in the non farm economy to take advantage of linkage opportunities driven by smallholder agricultural growth.

81. It is widely recognised that secure land rights are important for the poor, both to reduce vulnerability to dispossession and to give them a secure base on which to build their livelihoods. Similarly it is important that mechanisms exist to enable the exchange of land rights – whether to use or ownership – to allow some more successful farmers to expand their use of land and others to exit from agriculture with some assets to invest in non-farm activities. However, land titling is expensive and slow, and formal titles do not guarantee that land markets will work, as their legitimacy has to be widely recognised and supported by equitable and transparently consistent dispute resolution mechanisms. Full benefits of land market development also depend upon complementary financial market development, and the poor still need protection from dispossession and distress sales. As with other exchange systems, hybrid systems of land rights and exchange (with elements of hierarchy, market and traditional social relations) are often appropriate, with a high degree of context specificity determining appropriate forms of land tenure and exchange development in different places and at different times.
82. More efficient labour utilisation in agriculture and in non-agricultural activities requires development of both better skills and the movement of labour between different activities. This needs to be responsive to seasonal variations in labour demand and productivity and to new opportunities that arise through agricultural growth and associated linkages. Policies promoting improved health, literacy and skills are important here, as are improved communications infrastructure and transport services (for migrant workers). Improved water and fuel systems and supplies can release labour for other activities. Particular attention needs to be paid here to the labour demands and constraints facing women.
83. General development of financial services can support growth and promote livelihood security in the wider rural economy in a variety of ways – for example in reducing the costs of money transfers (for sending and receiving remittances) and enabling small scale saving and loans, to allow people to make productive investments or to cope with adverse shocks. A wide variety of measures can promote financial service development, including reform of financial institutions in the economy as a whole, institutional innovations (such as development of different micro-finance services), and technological innovations such as the introduction of ATMs. Again, a mixture of hierarchical and market exchange systems will be necessary, and different institutions and technologies will be appropriate in different situations.

6.3 Other policy issues affecting pro-poor access to exchange opportunities

84. Interactions between international trade reform and pro-poor agricultural growth are beyond the scope of this paper, and we do not discuss them in any detail. However as they affect poor rural people's access to markets they are clearly relevant to the issues addressed in this paper. Two points need to be made here. First, that if there are significant increases in the international prices for some crops produced by smallholder farmers in poor rural areas, there are critical questions about how far current market systems in poor rural economies will be able transmit these to change farm gate prices. Second, even if there are increases in farm gate prices, farmers may not be able to take advantage of these without coordinated exchange systems in input supply and financial and technical services necessary for the supply chain to function. Both these points emphasise the need for policies promoting supply chain coordination around smallholder farmers if they are to benefit from increases in international prices.
85. Another area of government and international intervention affecting markets in poor rural areas are safety net interventions such as food aid, food for work and subsidised input distribution. There is considerable concern regarding the impacts of these on markets and on market and supply chain development, in particular on the ways that these distort prices and suppress incentives and opportunities in local production and service delivery. This is certainly an issue with regard to impacts of food aid on food production. With regard to market systems the issues are less clear cut, as such interventions will not crowd out private sector players if there is very little private sector activity and other constraints are preventing its development. In such situations these interventions need to be used to develop coordinated exchange systems that build up economic activity and exchange capacity within the economy, while at

the same time promoting market stability and providing social and emergency assistance where this is needed.

86. This issue highlights problems of access failure and social exclusion. Different types of exchange mechanism may discriminate in different ways. Thus social networks by their nature tend to be exclusive, restricting entry to people with certain characteristics. Hierarchy and market transactions can also exclude the poor. Different types of exclusion need to be addressed in different ways – by removing or reducing problems of remoteness, disability or lack of education, by reducing social barriers and changing social relations affecting particular groups, and by creating new networks (in terms of both new channels and new forms and terms of access to goods and services). It is important that these issues are paid explicit attention in the promotion of formal and informal, market and non-market coordination and exchange mechanisms to ensure that these reduce rather than reinforce exclusion (farmer or trader associations, for example, often need to be based on existing relationships of trust if they are to be effective, but such relationships tend to be socially exclusive).

6.4 Research issues

87. The discussion in this paper has highlighted major disagreements and gaps in understanding of the critical problems facing smallholder agriculture in poor rural areas, of the causes of success and failure of policy interventions to support rapid pro-poor growth, and of the roles and mechanisms of coordinated exchange underlying all this. There are significant needs for research that will produce empirical evidence, theoretical understanding and policy prescriptions to fill these gaps and settle the disagreements.

88. Earlier sections of the paper have highlighted disagreements over the causes of liberalisation policies' lack of success in stimulating pro-poor agricultural growth. At the core of this are disagreements about the extent and importance of coordination failures affecting smallholder production, input supply, output marketing and financial service business development in poor rural areas. Empirical studies of these issues are however rare – the issues have not been sufficiently recognised and articulated by researchers, policy makers and research funding agencies, and there are significant theoretical / conceptual and practical difficulties in the design and implementation of such work. Nevertheless it is very important that these difficulties are addressed and wide ranging research undertaken on these issues.

89. Such research needs then to lead on to answers to two broad questions: what needs to be done (or what conditions are necessary and sufficient - under different circumstances - to put in place coordinated exchange mechanisms that support pro-poor agricultural growth); and how should this be done – or how should these coordinated exchange mechanisms be encouraged, and what form should they take. These two questions are closely related (for example *how* things can be done determines *what* can be done) and they both need to take account of (a) differing conditions affecting problems facing different areas and different people within those areas and (b) changes in these conditions over time with, among other things, stages in development and various transitions (as discussed earlier in paragraphs 75 and 77). They also need to take account of access to exchange mechanisms outside agriculture but through which poor people derive their major benefits from smallholder agricultural growth –in other words the transmission mechanisms linking smallholder agricultural growth and poverty reduction.

90. Major issues associated with these two questions and highlighted in this paper include the role and performance of the state, civil society, and the private sector; the performance of different forms of hierarchy; the need for price stabilisation and subsidies and mechanisms for achieving this; and impacts of international trade liberalisation. We now highlight further points needing research in addition to those arising out of earlier discussion of these issues.

91. A major difference between post-independence and liberalisation policies concerns the role of the state in supporting smallholder farmers' access to inputs, financial services and output markets. Pre-liberalisation policies recognised the need for government hierarchies (such as parastatals) to provide (or at least support) a web of coordinated exchange services around farmers acting as individuals or as groups. They also, in many cases, encouraged hybrid

relationships between farmers and service suppliers. For processed cash crops (such as tea, sugar and cotton) similar structures are also found with private sector hierarchies. According to the institutional critique of market liberalisation in poor rural areas, liberalisation destroyed the existing state hierarchy (which was often non-functional) and assumed that competitive market mechanisms would then deliver independent exchange services to farmers. If the lack of hierarchical coordination mechanisms in these exchange systems is the critical constraint to their development (as noted above more empirical work is needed on this), then what form should these hierarchical coordination mechanisms take?

92. The public good characteristics of these mechanisms suggest that the state should have (at the minimum) an enforcement and financing role in such mechanisms, but should the state achieve this through regulation of the private sector (with for example regulated monopolies or franchises) or through direct intervention (for example through parastatals)? Current conventional economic thinking suggests that private sector organisations generally operate more efficiently than public organisations, and that direct intervention by the state should be kept to a minimum, with regulation and contracting out of all but core state functions to the private sector. However, experience with private sector performance has also been mixed, and failures with direct state intervention in the past does not mean that state intervention should necessarily be written off and the private sector encouraged to take over: it may be better to look for ways of improving the performance of state agencies. Chaudhry 1993 for example argues that in poor economies the weakness of the state bureaucracy means that it does not have the capacity either to gather information from the private sector or to act on it to effectively regulate private sector activity, and in such circumstances direct state action is therefore often more effective than reliance on a regulated private sector. Is this the case? Are private sector organisations inherently more efficient than public sector organisations – or are they just normally situated in circumstances which make management easier, circumstances which do not apply when they take over public sector roles? Can in fact better structured and managed public sector agencies (particularly as regards political management and relations), deliver better performance than equivalent private sector organisations? These are important questions that need to be addressed, linked in with questions about the roles and structures of civil society, farmer organisations, and trader associations.

93. Another difference between post-independence and liberalisation policies was in the former's use of output price stabilisation and input, finance and output subsidies. Under what circumstances and how can such policies promote pro-poor growth? How can food crop producers' gains from output subsidies and wider economic gains from increased agricultural productivity, on the one hand, be balanced against poor consumers' losses from higher food prices on the other? How can price interventions be managed to avoid the inefficiency and huge fiscal burdens associated with many interventions in the past? And in Africa where small states have porous borders, what regional policies and cooperation are needed to support domestic policy change?

94. We conclude this discussion by briefly raising two other important exchange access issues which affect smallholder agricultural growth and its poverty reduction impacts but which are not sufficiently understood or considered in current policy debates: the threats that international trade reform may pose to pro-poor agricultural growth, and rural labour markets.

95. Global trade reform and market liberalisation are both linked to reduced protection of domestic markets. Most discussion of the effects of more open trade policies (with reductions in tariffs and non-tariff barriers) focuses on efficiency and welfare gains to the economy from access to cheaper imports, gains which are expected to outweigh, over the medium to long term, losses to existing producers in protected markets. These issues are important, but less emphasis is given to (a) the difficulties in capturing gains where coordinated exchange systems (markets) are weak, as is generally the case in poor rural areas, (b) the wider costs of losing hierarchies which, though internationally uncompetitive, may have made a valuable economic contribution to wider exchange systems, and (c) increased expenditures on tradables (by consumers and firms) which undermine the linkages by which the poor largely benefit from and participate in

wider economic growth. The extent and implications of these threats needs to be investigated.

96. As noted earlier, rural labour exchange systems are critical to the processes of smallholder agricultural growth and the non-farm linkages which drive poverty reduction. However rural labour systems, in Africa at least, do not seem to be the subject of recent systematic research that relates evolving forms of labour exchange mechanisms (in terms of their structure, wage rates, accessibility to different people, and suitability to different activities) and labour use and productivity to policies promoting pro-poor growth. Pro-poor growth policy design and implementation needs to be informed by an understanding of changes in rural labour exchange systems[15]. This is an important issue in need of more empirical study.

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[15] For example HIV/AIDS is likely to have critical impacts on rural labour markets and exchange in many poor rural areas, but possible impacts are ambiguous (will labour shortages stimulate wages, or will wages be depressed by reduced demand for labour?). What are the impacts on labour markets of issues raised in paragraph 95 (increased openness of markets reducing local linkages and multipliers)?

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