

Markets, Chains and Sustainable Development
Strategy & Policy paper 6

Markets, institutional change and the new agenda for agriculture

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May 2007



Markets, Chains and Sustainable Development **Strategy & Policy Papers**

Key words:

New institutional economics, transaction costs, organisations

Recommended Citation:

Eaton, D. & G. Meijerink. 2007. Markets, institutional change and the new agenda for agriculture. *Markets, Chains and Sustainable Development Strategy and Policy Paper*, no.6. Stichting DLO: Wageningen. Available at: <http://www.boci.wur.nl/UK/Publications/>

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ISBN **978-90-8585-153-0**

Available online at: <http://www.boci.wur.nl/UK/Publications/>
Free electronic distribution

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Markets, institutional change and the new agenda for agriculture

Derek Eaton & Gerdien Meijerink

1. Introduction

Recent discussion of the 'new agenda for agriculture' in development highlights a range of issues that deserve greater attention by policymakers and researchers. These include, among others, investing in technology to increase productivity, reforming trade and agricultural policies, providing access to services for the rural poor, and also attention for trends and risks with significant implications, such as HIV/AIDS and climate change. In particular, high-profile reports¹ and initiatives (such as the 'Regoverning Markets' project²) emphasise, in one form or another, the need to "create conditions that enable small-scale (resource-poor) farmers to participate in markets".

Beginning in the 1980s, a common theme in programmes and policies of bilateral and multilateral development organisations was that of 'letting markets work'. Driven partly by structural adjustment programmes, this coincided with a broader political shift in many Western countries towards less government intervention in markets. As privatisation and liberalisation initiatives became more common in the 1990s, recognition grew that, particularly in developing and transition economies, markets don't necessarily just develop on their own. Experiences in transition economies helped focus attention on 'preconditions' for the functioning of markets, such as property rights. Consequently various initiatives were launched to create an 'enabling environment' and achieve legal and regulatory changes e.g. by adopting Western legal systems.

During the last decades, discussions on 'enabling market conditions' reflect a growing awareness of two issues. First, getting markets to work involves a much broader range of issues than simply removing (sometimes perverse) regulations and installing a legal system on paper. Second, even where markets expand, many people can be excluded from this process. How can this process therefore be directed to broaden, rather than limit, opportunities, particularly for the poor?

Underlying the need to create 'enabling market conditions' are a number of basic questions for policymakers, researchers and those undertaking development initiatives, such as:

- How can market opportunities for (small) farmers be improved?
- How can market imperfections (for example, for credit) be overcome?
- How can (small) farmers best organise themselves in markets (such as in producers' associations and cooperatives)?

This list is by no means exhaustive but all these questions are related to improving how markets work, both from efficiency and equity (fairness, or 'pro-poor') perspectives. This paper attempts to delve deeper into the 'how' questions related to how markets work and can be improved, which is often lacking in recent discussion.

This chapter attempts to synthesise recent thinking and insights from research on the development of markets and markets institutions for agricultural development. Here, the concept *market institutions* refers to the broader range of factors that are necessary for the organisation of market exchange. The next section therefore summarises what is meant by markets and how the working of markets is conditioned by various levels of economic and social institutions. This ranges from the form that organisations, such as cooperatives and private companies, take to cultural norms and beliefs that help determine people's behaviour.

The perspective here is consistent with that of many of the recent policy documents³ on the role of agriculture in development: market-driven development is central to reducing poverty and achieving the Millennium Development Goals. The focus on markets and institutions that support market exchange is not meant to undermine the importance of other key elements of promoting agricultural development, such as empowerment of the poor, improving the functioning of public organisations or dealing strategically with climate change. But given that market-driven development is seen as playing such a central role, there is a need to examine this process in a more detailed and systematic manner.

The material and concepts reviewed are broad, though still limited in that they represent primarily an economic perspective⁴. Answering the practical 'how' questions listed above requires attention to two areas:

- (1) More efforts are required to **learn from existing and ongoing initiatives** in agricultural development that attempt to stimulate these enabling market conditions. Both successes and failures provide a wealth of new understanding, which should be developed through stakeholder learning and action processes.
- (2) The emerging **analytical framework**⁵ needs to be further refined and expanded, in a way that maintains its practical relevance. As is emphasised in this chapter, very little is understood about how markets function, making it a challenging task to improve their functioning.

These two areas are clearly complementary. The development of an analytical framework should learn from existing and ongoing successes and failures. As with any form of research activity, there is the risk of concentrating on theoretical issues and losing touch with reality. Or, there is also the risk that knowledge of specialised frameworks reduces the potential for broader reflection and learning (in itself becoming exclusive). On the other hand, a sufficient amount of intellectual and disciplinary rigour is required to answer the "how" questions and advance understanding of social processes beyond slogans. But the greatest risk of all perhaps is not finding a middle ground between theory and practical relevance, which could lead to far more 'failures' than necessary.

2. Introducing markets and market institutions

What are markets? Many people think of markets as physical places where goods are exchanged, ranging perhaps from local produce markets to modern stock exchanges. But, understanding the significance of markets means thinking about markets as an economic activity or a way of organizing exchange between people rather than about physical places. Thus a market can exist in various physical forms but refers primarily to the process by which a specific group of people exchange goods or services. In economic terms, markets are a mechanism for (re)allocating resources. The central activity in a market is the exchange, or transaction⁶.

Discussion around supply/value chains is partly responsible for promoting an image of markets that emphasises a nice hierarchical image, such as can be seen in Figure 1. Very few markets in developing countries can be represented in such a simple manner. Markets, including those important for agriculture, such as markets for credit, labour, produce, have much more of a network-like structure (see Figure 2) where social relationships often determine who exchanges with whom and under which terms. Furthermore, there is typically far less specialisation of roles, meaning that individuals may buy or sell at various points in the hierarchy of the supply chain.

Figure 1: Example of a value/supply chain

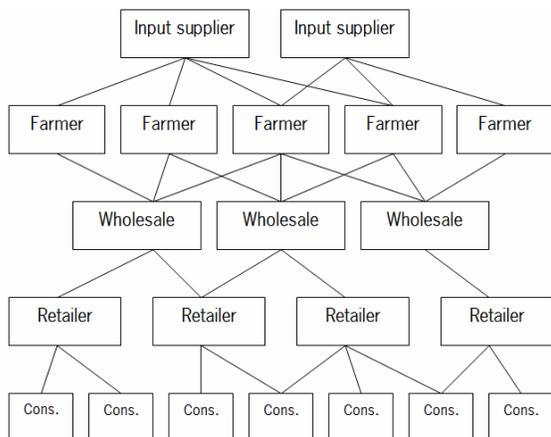
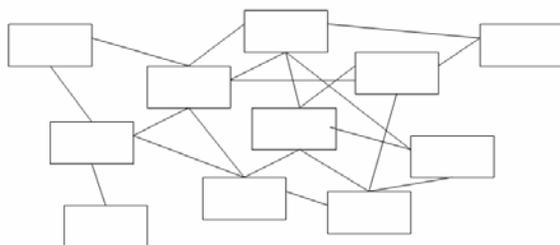


Figure 2: Example of market relationship dominated by networks and multiple roles



3. Understanding institutions

“The statement that “institutions matter” does not make much sense unless we have a common understanding about what institutions are and how they are formed”⁹.

So what are institutions? Institutions are basically invisible and usually taken for granted, resulting in the role of institutions being ignored for a long time, in policy and (economic) research. In this section, we will try to achieve a clearer understanding of what institutions are. This is challenging as the concept is rather abstract.

The most common definition for institutions is from Douglass North¹⁰ who defined them as “formal and informal rules that shape human interaction”. North emphasises that a crucial distinction must be made between institutions and organisations. Although like institutions, organisations provide a structure to human interaction, conceptually rules (institutions) must be differentiated from the players (organisations). Using the analogy of a football game, the purpose of the rules is to define the way the game is played. But the objective of the players within that set of rules is to win the game, by a combination of skills, strategy, and coordination. In this light, the term *institutional capacity building* or *development* can be seen as strengthening the capacity of the players, but not as changing (e.g. improving) the rules. The purpose of institutional capacity development is to improve the “hardware” such as the construction of facilities or provision of equipment, and investing in the “software” including staff knowledge, skills, and attitudes¹¹. In this section, we will focus more on the rules than the players. It must be noted, however, that organisations are also shaped by internal rules, especially when organisation are seen in a broader context, thus including production chains or community groups.

The definition of North, although commonly used, is still very general. As North¹² has stated institutions “are a guide to human interaction, so that when we wish to greet friends on the street, drive an automobile, buy oranges, borrow money, form a business, bury our dead, or whatever, we know (or can learn easily) how to perform these tasks”. Institutions thus are not only relevant to economic issues, but span a whole range of societal issues¹³. Within this broad definition, we will provide a specification of the types of institutions that exist, and which ones are relevant for our study on the role they play in economic development.

A useful distinction between different levels of institutions was provided by Williamson¹⁴ as outlined in Figure 3. As seen in Figure 3, it is useful to distinguish between the institutional *environment* (or framework) and institutional *arrangements*¹⁵. The institutional environment consists of the set of constraints, both formal (e.g. laws) and informal (e.g. norms of social behaviour) that condition economic interaction, combining level 1 and 2 of Figure 3. The institutional environment usually applies within a country or a large region (such as a federal state). Some surpass national boundaries (such as the rules within the EU, or international agreements).

Figure 3: Levels of institutions

1	Informal rules: Customs, traditions, norms, beliefs, religion	<i>General</i>
2	Formal rules: Legislation and legal system (judiciary), political system, bureaucracy, regulations	↓
3	Governance structures / institutional arrangements: Forms of organisations, contractual arrangements	<i>Specific</i>

Source: Adapted from Williamson, 2000¹⁴

Institutional arrangements, also referred to as organisations¹⁶ or governance structures¹⁴, comprise the groups of individuals bound by some common purpose. Common examples of economic bodies

that can be viewed as institutional arrangements are firms, family farms, and co-operatives, although organizations also include a wide range of political bodies, educational bodies, public bodies, etc. Again, the emphasis here is on the rules that constitute institutional arrangements, and not on their “hardware” and “software”. Three generic governance structures can be identified¹⁷ – communities, states, and markets – for the distinct ways that they coordinate joint activities and allocate claims on goods and services¹⁸. Often a mix (hybrid) of these governance structures exists in the production of a certain good.

Institutions and development

What does institutional change mean in the context of agricultural development? What is the relationship between institutional change and agricultural development? Today, it seems that there is no doubt concerning the importance of institutions in promoting economic development. This interest for institutions grew during the 1990s as both researchers and aid agencies devoted increasing attention to the role of governments in providing an “enabling environment” and good governance. Interest in thinking more systematically about what this implied was stimulated by the recognition generated for the work of the economic historian Douglass North, awarded the Nobel Prize in Economics in 1993. In 2002, the World Bank’s annual World Development Report was devoted to this theme emphasising the importance of institutions for “enhancing opportunities for poor people in markets, and empowering them. What makes market activity rewarding and possible for some, and not others? Why are some market systems inclusive and integrated, allowing benefits to flow to the poor as well as the rich, the rural people as well as the urban? And why are other markets localized and segmented?” Some development specialists even describe the development process as the “the complementary evolution of organisations and institutions”¹⁹.

So how do institutions stimulate economic growth? Institutions affect the performance of the economy by their effect on the costs of exchange (transaction costs) and production. Together with the technology employed, they determine the transactions and transformations (production) that take place in an economy. Efficient institutions reduce these costs of exchange and production. *Transaction costs* consist essentially of all the resources, in particular the time of individuals, to search for, negotiate, conclude and enforce an agreement to exchange goods or services. High transaction costs (essentially for obtaining information) and risks lead to coordination problems and market failure, which further increases risks and the costs of exchange. Such an environment is highly unsupportive to technological change. Viewed in this way, the concepts and tools of new institutional economics can also explain the development and diffusion of technology in the agricultural sector. For example, Dorward et al.²⁰ argue that the vicious circle of underdevelopment seen in many African countries is due to the high transaction costs and risks in markets for inputs, outputs and credit. These, in turn, arise from the sparse density of transactions as well as the current institutional arrangements.

Why is it that certain technologies are developed by certain actors, and why are they used in some places but not in others for which they seem equally suited? These questions are even more interesting when the concept of technology is extended to include know-how concerning how to organise the production activities of individuals, for example within an estate, a cooperative or even a small family farm. To address such questions, it is necessary to examine the nature and role of institutions in economic activities (production, exchange, consumption).

This is not to say that institutions are the sole determinants of agricultural development. Clearly, other factors, such as infrastructure and technology can help to reduce transaction costs too. However the development of technology or decision to improve infrastructure (including *which* infrastructure), is embedded within institutions and social systems in general. Institutions condition these processes and an understanding of this relationship is necessary for stimulating technological change. In the first instance, this requires more analytical insights into the functioning of institutions. It should be emphasised though that, at this point, more is understood about how the failure of institutions to adapt in certain directions constrains individuals in their attempts to improve their livelihoods. Much less is

known about how to steer or stimulate institutional change in certain directions. This issue is discussed further below.

There are two types of purposes that institutions fulfil in economic terms²¹:

- Promoting exchange
- Protecting property and persons

From an economic perspective, poorly functioning institutions mean that individuals and organisations perceive in many forms of investment a high risk that they will not be able to reap the rewards. For example, such risks are high when private property cannot be protected, or when difficulties in concluding and enforcing agreements with business partners or clients can only be overcome with resort to mechanisms such as ostracism or physical force. These risks decrease the incentive to invest in physical assets (including technology) or skills and knowledge. The result is that little innovation, whether in terms of technology or in terms of new ways of organizing production or distribution, takes place and productivity does not increase.

The principal three categories of interest here, informal rules, formal rules, and organisations (see table 1) can be considered in terms of the role they play in either promoting exchange or protecting property (or both).

Levels of institutions	Institutions to promote exchange	Institutions to protect property and persons
<i>Institutional Environment: Embeddedness</i> Informal rules	Norms Beliefs Shared values	Perceived legitimacy of laws Religious-based norms Traditional customs
<i>Institutional Environment:</i> Formal rules	Contracts and contract enforcement mechanisms (legal system) Commercial rules	Constitutions Laws
<i>Institutional Arrangements:</i> Governance structures Organizations	Firms ——— Co-operatives ——— Coordination (vertical supply arrangements) Contracts	--> -->

Table 1: Categories and examples of institutions supporting economic growth

Note * Organisations involved in coordinating production processes serve both purposes of promoting exchange and protecting property.

Organization and governance

The third level of institutional arrangements is a logical place to start given that it includes what most people think of as “institutions”. Institutional arrangements include organizations and other organizational forms, or governance structures. In essence, this refers to the agreements among people as to how to conduct some activity. For example, a firm is an organization that produces a good or service and sells it to clients. Explaining the economic logic for the existence of firms, as opposed to a series of (short-term) contracts or agreements between individuals, has been a central question in new institutional economics. Other forms of organization include non-profit organizations, co-operatives and public agencies, including government ministries.

In addition to these types of organizations, institutional arrangements also refer to different forms of agreements, or contracts that govern transactions. This includes for example the forms and terms of contractual arrangements in vertically coordinated supply chains. Contract farming, though still occupying a relatively small share, is a fast-growing arrangement by which supermarkets and their suppliers source produce, especially from developing countries. For some commodities, there is also a growing tendency to contract from larger farms (estates) or groups of farmers. This is driven by efficiency benefits captured by actors further down the supply chain but also leads to a restructuring of production at farm level. Some farmers may benefit and others may lose. Box 1 illustrates how some of those losses may be partly offset by benefits from expanding overall production.

Specific institutional arrangements serve primarily to promote more efficient exchange of goods and services. For instance, a business with a number of employees has the advantage that it saves on transaction costs for the owner or manager who does not need to repeatedly negotiate contracts (agreements) with employees for their labour skills. Similarly, the use of contract farming may reduce costs for both farmers and purchasers in finding and securing produce, relative to using the “spot” market. Most importantly such arrangements help reduce uncertainty, which is also included as an element of transaction costs.

In general, organisational forms emerge to support exchange, specialisation and more complex production technologies. In particular, as the private firm grows beyond the size of 1-2 persons, it internalises the costs of organising the myriad of transactions necessary for the production of some good in a type of command-and-control hierarchy. This does not mean that economic development necessarily leads to a non-stop process favouring larger industrial conglomerates. The optimal economic size of a firm may decrease as well as increase, given changes in technology, knowledge, market structure and other factors²². But even relatively small firms do emerge based on economic opportunities as well as supporting aspects of the institutional environment. Businesses can only operate successful though when agreements on performance, delivery of services (delegation of tasks) and payments within that business can be sufficiently enforced by management.

Box 1: Illustration from Senegalese vegetable exports

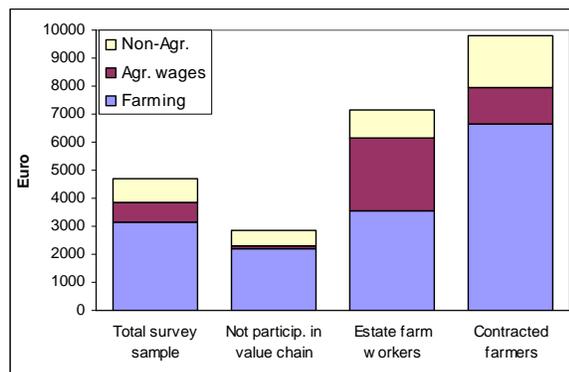
The effects of changing institutional arrangements on inclusion or exclusion of smallholders are complicated, as illustrated by recent survey work among Senegalese horticultural producers²³. Restructuring of the supply chain benefits some farmers and decreases opportunities for others, but the indirect effects may be less clear.

Exports of French beans from Senegal have almost doubled in the past decade, despite increasingly stringent quality standards in the importing European market. This growth has involved institutional change consisting of a shift from the use of contract farming to production on larger estates. Only larger, better-resourced farmers have generally continued with contract farming, as they are able to meet demands for larger orders and higher quality. Others have shifted to become farm workers on the new estates. Contract farming households have higher incomes than those of estate farm workers. But the latter households have considerably higher incomes than those not participating in the value chain at all (see Figure 4).

Thus, some farmers, previously contracted for bean cultivation, have been excluded from participation in the market in this manner. This exclusion has been driven by increasing demands in foreign markets for stricter quality standards. But many of these farmers have replaced this lost opportunity with income from working on estates. Furthermore, the overall growth in exports, partly attributable to higher scale of production, has enabled even more workers to be hired, leading to overall income gains in the region. A survey in 2005 in Les Niayes, where more than 90% of exported French beans are grown, estimated that the share of households engaged in contract farming decreased from 23% to 10% between 2000 and 2005, while the proportion of households with members engaged in employment on estates increased from 10% to 34%.

What has not been explored in this type of research though, is whether there were other possibilities for institutional initiatives that could have further improved the position of small farmers, or mitigate any negative repercussions. Are there, for example, possibilities for producers’ associations to achieve some of the same types of gains as estates, in terms of quality control and larger volumes?

Figure 4: Household income by source (survey of Senegalese farmers in French bean producing region) Source: (Maertens and Swinnen 2007)



In many areas of local trade and even manufacturing in Sub-Saharan African countries, businesses of more than one person are still rather scarce²⁴. Entrepreneurs and managers of small businesses in Africa contend with problems of internal enforcement of agreements and delegation of tasks among employees. Partly for these reasons, markets²⁵ play a relatively large role in places like Sub-Saharan Africa in allocating resources, given the relative lack of medium to larger size business firms. These markets are characterised thus not only by the large number of very small 'firms', including individual entrepreneurs, but also by an important role for networks and social relationships. From an economic point of view, these networks are used to reduce the costs of acquiring information about one's trading partner, which are termed *search costs* (also a form of transaction costs). Networks, including those based on ethnic, family and religious ties, play an important economic role. Individuals form networks in order to reduce transaction costs. Part of the challenge of development includes the evolution of institutions to support more impersonal exchange. Research suggests that almost exclusive reliance on networks considerably raises the costs of exchange compared to a situation in which institutions have developed that promote interactions and transactions that are less based on personal relationships²⁴. Box 2 describes an interesting example of grain traders in many African countries where seemingly obvious efficiencies from larger-scale operations are not captured, with the market dominated often by almost one-man operations.

Box 2: Illustration from African grain traders

Production and trade in Sub-Saharan Africa is dominated by small-scale producers. Grain traders, for example, are often at most one-person businesses. Produce is not very standardised (diverse local varieties) and variation in quality is wide. These entrepreneurs therefore devote a considerable amount of time to inspecting each purchase.

Figure 5, based on survey work in three countries, indicates that inspection of grain quality is almost entirely done by the trader, who is not confident in delegating this task to an employee or to relying on assessment by others (such as grading organisations). This process is clearly quite time consuming, particularly since traders need to travel themselves to points of purchase. These transaction costs are a burden on the entire economy (including consumers of grain) that can only be reduced through the development of both formal and informal institutions.

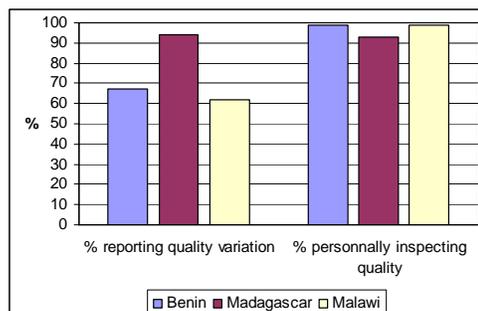


Figure 5: Assessment of quality by grain traders²⁶

Formal Rules

Formal rules refer to laws, regulations or other forms of codified (explicit) prescriptions as to what individuals or organisations may or may not do. There are different formal rules with different functions. But basically, from an economic point of view, formal rules promote exchange by (i) supporting exchange, i.e. the negotiation of agreements, or contracts between agents and (ii) in protecting property and persons. The set of formal rules is sometimes also referred to as the institutional environment. Economic growth through the growth of specialisation and exchange in an economy depends on the evolution of the institutional environment²⁷.

When the institutional environment does not sufficiently support the protection of property and impersonal exchange, the economic system becomes a local barter in economies where goods and services are exchanged primarily through face-to-face transactions between individuals who are related through some form of family, religious, ethnic bonds. In such an economy, informal rules and social institutions play a major role (and are discussed further below).

Supporting exchange

A major challenge to promoting exchange is the development of formal and informal rules that allow yet greater gains from trade (and specialisation) to be realised through exchange between people who are not only strangers to each other, but also to each other's networks. Why this is important is illustrated in Box 3. Being able to deal only with those with whom a (long-standing) relationship has been established and enforcing agreements through personal ties involves high costs in terms of time that could have been spent more productively. In addition, it limits the number of trading partners, thus limiting the extent of trade and profits.

Contractual safeguards help to support the process of impersonal exchange. These can include formal rules, such as written contracts, disclosure agreements and contract enforcement through courts or arbiters, but informal rules, such as codes of conduct among merchants and other basis for trust and co-operation, continue to play a role (see next section), even when formal rules are in place.

As institutions increase the certainty that agreements or contracts will be respected, individual agents will be more willing to invest and undertake more complex transactions. This includes acquiring and sharing knowledge about production processes, which is increasingly necessary if people are to specialise. Not only are they more willing to transact, but they are able to transact more because the costs (particularly in terms of time) of acquiring information about their exchanging partner and enforcing contracts (also in terms of time spent on e.g. visiting the defaulter or legal procedures) are reduced.

Box 3: Exchange when formal rules are lacking: the example of agricultural traders in Madagascar, Benin and Malawi

Agricultural traders in Madagascar, Benin and Malawi face various breaches of contract as well as theft of their produce. At the first glance these instances seem to be quite low, but a closer look shows that the traders have implemented various strategies to lower the risk that these contract breaches happen. These strategies usually do not make use of formal rules and institutions because they do not exist, are unreliable or involve very high transaction costs (long administrative procedures and waiting time). The strategies that agricultural traders implement are effective but entail high transaction costs that are often overlooked.

Theft is avoided by sleeping in the stores or by not stocking the goods at all. Transport of goods involves high risks which are reduced by paying protection money or travelling in convoy.

Contract breaches are avoided by adopting strategies that leave little room for abuse. Most transactions are executed through cash-and-carry, exchanging goods for money on the spot, without supplier credit, placement of orders, paying by check or invoice. Although this reduces contractual risk, they complicate the transactions and planning of business. Goods are inspected by the traders themselves, because there is a high quality risk. This procedure complicates the conduct of business and requires extensive travel for the trader.

When there are conflicts about non-payment or late delivery of goods, these are usually resolved by direct negotiation between the conflicting parties. In order to resolve these conflicts, the strength of the relationship is an important factor. Only when conflicts are severe, traders turn to formal rules and institutions such as the police and courts. However, this also often leads to the discontinuance of the relationship and therefore traders will try to avoid such conflicts. Losing a trading partner means losing trade and losing the long-term investment in establishing the relationship. Resolving conflicts can take a lot of time, involving frequent visits to the other party, waiting time, time spent on discussions, costs of settling the dispute (e.g. reaching a compromise that involves splitting costs or even accepting non-payment).

Source: (Fafchamps 2004)²⁸

Protecting property

In addition to supporting exchange, formal rules are also an important means for protecting property and persons. People are less willing to invest in productive activities if there is considerable risk that their assets might be forcefully appropriated. Similarly the incentive to engage in exchange, even for example to bring one's good to the market, depends on assurances that one's goods cannot be

expropriated. Thus property rights play a central role in economic development. What are property rights? They can be defined as socially sanctioned uses of valuable assets by economic actors²⁹. This can refer to defining access, use and transfer of physical property, such as land, as well as more intangible property, such as knowledge and technology. Property rights are essential to determining a market situation, in terms of defining the buyers and sellers, the good (or service) being exchanged, the nature of payment and the means for resolving disputes.

Why are property rights important for economic activity? The manner in which property rights are structured has important implications for both the efficient organisation of economic activity, but also for the distribution of wealth and power in society. In terms of efficiency, the structure of property rights systems determines to what extent incentives facing private actors (individuals, firms) take into account unintended positive or negative effects on other actors³⁰. But property rights also have to be defined and enforceable in order to be effective in the first place. In terms of equity, property rights define who owns what, who has decision-making power and thus who receives the benefits arising from the use of resources. Property rights are thus an issue of fundamental political and economic importance. They are basic social institutions that determine incentives for investment, production and exchange³¹. Property rights are also important for sustainable use of natural resources. When exclusive property rights, whether held collectively or individually, are defined insufficiently over a certain resource, then a resulting open access situation can lead to excessive use of that resource (e.g. open access fisheries lead to depletion of fish stocks). But, as will be seen below, knowledge of exactly how property rights are assured in different social and political settings is limited.

Efficient markets, well-defined property rights and effective, well-intentioned states are seen as critical ingredients of “good governance” which lies basically in the hands of national policy-makers. This view focuses on the state as being the sole governance structure and this view leaves very little scope for intervention. It relegates “good governance” to the realm of “necessary prerequisites” for economic development or technology adoption and in that sense precludes any scope for intervention or improvement. However, institutional analysis goes beyond “good governance” as defining it as merely a political problem, and examines the mechanisms that underlie various processes, leading to either successful outcomes (e.g. economic development, reducing poverty and inequality), or to stagnation or even deterioration. It is not just a question of the existence of institutions or a lack of them, but also of what type. Not all institutions lead to successful outcomes, as is sometimes assumed when lack of economic development is attributed to a lack of institutions. Perverse or inappropriate institutions also exist.

Informal Rules and Norms

Informal rules and norms are even more elusive than formal ones, as they are not written down, and are often hard to observe or almost invisible. They have certainly not played a role in most economic analyses because of this. However, they can have a decisive role in determining the success or failure of economic enterprises, such as markets. Informal rules are all the implicit rules, customs, norms, practices, and habits that are more or less followed by a certain group or society. Simply put, it is a “way of doing things”. Often “social capital” is seen to mean the same as informal rules. Social capital refers to “features of social organisation, such as trust, norms, and networks, which can improve the efficiency of society by facilitating coordinated action”³². However, social capital does not always contribute to improved efficiency of society, as organised crime for instance can also be characterised by a high degree of social capital. Sometimes these informal rules are called “social institutions”³³.

Informal rules as well as social capital play a role because in general, they lower transaction costs. Knowing and trusting people, knowing the “way things are done” and trusting the fact that everyone will abide by this mode of operation makes it easier in terms of time and costs to exchange information, make and stick to agreements. But informal rules may also contribute to the effectiveness of formal rules. If the norm is to abide by formal rules e.g. you always stop before a red traffic light, regardless of whether the police is checking you, then it is less costly to enforce these formal rules. If this is not the case, e.g. everyone drives through the red light, then either the formal rule becomes a “paper

tiger” or a substantial amount of resources needs to be spent to enforce this rule – e.g. monitor driving behaviour and fine anyone who drives through red. See box 4 for the Grameen bank as an example of how informal rules can function as an enforcement mechanism.

The bonds between people engaged in exchange are also determined by informal rules or social institutions and serve to enforce the terms of the exchange. Trading with more distant partners is based initially on norms and networks that allow traders to contact and gather information about their exchanging partner. These networks and their norms then serve to help enforce the exchange terms agreed upon, and may be based on social or religious ties, or common language, for example. Such practices are widespread even in more industrialised countries, because of how they help reduce transaction costs.

Here the role of behaviour and reputation of those engaged in exchange becomes important too³⁴. When most stick to the rules, it becomes easier for others to also abide by the rules. A virtuous circle of reputation (for sticking to the rules), trust, reciprocity (others also stick to the rules) and cooperation develops. This can be associated with the notion of social capital. Social capital as defined by the World Bank refers to the institutions, relationships, and norms that shape the quality and quantity of a society's social interactions. Social capital is not just the sum of the institutions which underpin a society – it is the glue that holds them together. Box 4 gives an example of how enforcement problems with relation to financial services to the poor were solved by building on reputation and social capital within groups.

The reverse may also be true. A situation where not all players abide by the rules, but often “cheat”, may lead to a vicious circle of reputation (for cheating), mistrust, reciprocity (others also cheat) and no cooperation. In this case, this will undermine the institutional arrangement, and (outside) enforcement becomes even more necessary. “Cheating” can become an institution in itself, for instance some form of corruption as a custom or norm.

Box 4: Informal rules as enforcement mechanism: the Grameen Bank

Mohammed Yunus was awarded the Nobel Peace Prize in 2006 for what is essentially an institutional innovation. He set up the Grameen Bank which provides credit to the poorest of the poor in rural Bangladesh without any collateral. By doing this, he ran the risk of financial bankruptcy, because by not demanding any collateral, how could he make sure that loans were repaid? The interest rates of moneylenders are often very high because the defaulting rate is high as well. By demanding a high interest rate, they can recover some of their losses. But Yunus also asked low interest rates. Somehow he had to solve the problem of defaulting and enforcement of payments. He did this by relying mostly on informal rules and social capital of groups.

There were two critical factors to the success of the Grameen Bank. First, was to lend money mostly to women, because Yunus found that women usually invest productively to support their families. Secondly, he gave loans to groups. The system is explained in the “credit delivery system” of the Grameen bank: “Groups of five prospective borrowers are formed; in the first stage, only two of them are eligible for, and receive, a loan. The group is observed for a month to see if the members are conforming to the rules of the bank. Only if the first two borrowers begin to repay the principal plus interest over a period of six weeks, do the other members of the group become eligible themselves for a loan. Because of these restrictions, there is substantial group pressure to keep individual records clear. In this sense, the collective responsibility of the group serves as the collateral on the loan.” In the method of action the Grameen bank further explains that “Lean on solidarity groups: small informal groups consisting of co-opted members coming from the same background and trusting each other.”

This model became a great success and by 2003, over 300 million US\$ had been loaned to half a million of groups. The fact that Yunus received the Nobel prize for this reflects the fact how innovative his institutional solution was.

Source: The Grameen Bank (<http://www.grameen-info.org/>)

In discussing informal institutions in the form of belief and social norms, it is important to avoid the simplistic “modernising” perspective that views such institutions as holding back economic change. Hayami and Kikuchi³⁵ studied the recent development of vegetable marketing chains in an area of West Java, Indonesia. They concluded that traditional norms and values concerning reciprocity and honour in local communities supported the emergence of efficient forms of contracting among producers and traders, requiring fewer use of formal institutions for enforcing contracts. Hayami and Kikuchi argue that this demonstrates how “traditional” institutions, in this case social norms of behaviour, do not have to be an impediment to efficient exchange, and can actually promote it. They point out that similar examples can be found in the history of Japanese industrialisation.

In discussing the role of informal institutions, a qualification is needed. Although it is true that informal rules play a crucial role in reducing the risks linked to exchange (e.g. contract breaches), especially when formal rules are missing or not reliable, there is a danger in overemphasising their potential to support efficient exchange. Informal rules may also involve high transaction costs when based on personal relationships which require considerable investments for their establishment and maintenance. Investment in such relationships does reduce transaction costs and risks associated with exchange. But exchange based purely on personal relationships is likely to be limited in volume and in terms of the number of trading partners. It becomes clear when we imagine how we, living in a developed country, would go about out doing our regular day-to-day business such as buying groceries, buying books via the internet, accessing our money from an ATM machine, when we needed to have long-standing personal relationships with all the people we dealt with on an impersonal basis every day! On the other hand, informal rules, norms, personal relationships are never completely replaced and also continue to play a role in situations where formal rules are effective.

There is no magic combination of formal and informal institutions. The growth and development of markets can take place under various combinations of formal and informal institutions that promote exchange and protect property³⁶. A relevant modern example is the rapid economic growth that has taken place in China during the last decade and a half. This appears to have been possible with a relative lack of enforcement of private property rights, at least from a Western legal perspective, particularly with respect to land. One can point perhaps to other institutional arrangements and norms which have contributed to protecting property (and investments) in China. Or some argue that it is possible that ongoing growth is only possible if such institutions and others (e.g. banks and the credit market) are reformed. But the point remains that considerable economic expansion has occurred without following a prescription or universal recipe for institutional reform. How this has taken place or could be further supported by institutional change has not been sufficiently examined.

4. Institutional change and agricultural development: How do institutions change?

It is important to recognise that institutions are in a constant state of evolution. The pace of this change may be admittedly slow in many instances, and certain institutional configurations might become ‘locked-in’ for long periods of time. Institutions are established and changed by groups of people who act within their social environment, based on past experience (learning). As North stated: “Organisations and their entrepreneurs engage in purposive activity and in that role are the agents of, and shape the direction of, institutional change”³⁷. Or: “Institutions are the product of intentional human efforts to give structure to an uncertain world, and are congruent with a society’s dominant belief system on how the world operates. Enduring changes in institutions only occur when this underlying belief system also changes” (Shirley³⁸ paraphrasing North³⁹). This is not meant to imply that beliefs drive institutional change. But certain beliefs and cultural attitudes permit a learning process that supports, in turn, a change in beliefs as institutions change. Dolfma⁴⁰ has therefore described rules as ‘solidified’ or consolidated learning. There is thus a clear link between institutional change and learning, which opens up possibilities of institutional change through learning processes.

The fact that institutions are embedded in social environments has some important consequences. The relative importance of various social networks in promoting exchange and reducing transaction costs was highlighted above. But social networks may serve also to prevent new competitors from gaining a foothold in markets and thus inhibit institutional change. This kind of entry restriction is probably most serious in the types of products and markets that are relatively stable over time, such as those dominated by primary commodities, in contrast to those characterised by more frequent innovation and changes. Furthermore, little is known about how these networks evolve over time⁴¹, which may be key to understanding how to create opportunities for others, especially excluded groups. Networks are not formal organizations, which makes it difficult to consider how their membership can be influenced.

In a relatively static economy, the differentiation (segmentation) of groups among different economic activities can become entrenched for simple economic reasons. "For instance, if there are many Luos⁴² in fish trade, Luos who wish to start their own business are more likely to enter fish trade than any other trade, simply because they are more likely to already have contacts with fish traders"⁴¹. This obviously has negative implications for the equality of opportunity and possible inclusion of certain groups.

Segmentation can therefore also have negative effects on investment choices by biasing the choices of entrepreneurs and individuals away from potentially more profitable opportunities (leading to efficiency losses over time). Others may be excluded or hindered from engaging in risky but potentially promising new lines of activity. The result is an economy in which various networks and groups serve to replicate themselves and the status quo. The process of economic development thus includes a certain amount of evolution and change among such networks and the associated segmentation of activities.

These networks also vary across countries. Fafchamps⁴³ explains how networks of agricultural traders (grain traders) in Malawi and Madagascar are relatively thin, for example. This means that traders know and deal on average with a limited number of suppliers (farmers or other traders) and clients (wholesalers or retailers). Making new business contacts is costly in terms of time necessary to develop a relationship involving sufficient trust. On the other hand, surveys in both Kenya and Benin indicate that business networks of grain traders are denser. This means that information circulates more freely and thus results in more efficient transactions (e.g. requiring less time).

Institutional dynamics can be studied⁴³. Researchers in this area though are concentrating first and foremost on improving understanding of the forces at work. It will be some time before there are clear policy prescriptions⁴⁴.

How can institutional change be stimulated?

If institutions are so important, then it might be argued that more ODA funds should be devoted to improving institutions, relative to investments in technology or infrastructure. Added to this argument may be the justification that institutions have been relatively neglected in the past. The issue is not so simple though. First of all, when technology has many public good characteristics, such as in the agricultural sector, there remains a strong argument to continue government support, although careful examination of the specific forms of technology development sponsored by public, possibly foreign funds, such as ODA is warranted. Secondly, improving institutions is more easily prescribed than achieved.

Despite recognition of the importance of institutions, much thinking about promoting development (e.g. the IAC report⁴⁵) seems to imply that institutional development is simply something 'to be done' (for example, through capacity development or good governance initiatives), or a question of political will. Yet, the experiences of trying to promote institutional development make a strong case that our understanding of the processes is still insufficient⁴⁶. As Löffler *et al.*⁴⁷ have observed in an analysis of twelve recent development policy reports, there seems to be consensus on what needs to be done. For instance, (financial) services to the poor should be improved, market access for (poor) farmers

should be enhanced, safety nets for the poor should be in place, to mention just a few. But there is still very little experience with and guidance on how to achieve institutional change that goes beyond developing new policies and laws that remain paper tigers. How can changes to formal institutions become effective and embedded in society and behaviour? How can informal rules and norms or social capital be developed, improved, strengthened? The question on *how* to achieve this kind of institutional change is therefore still unanswered to a large extent. This is a reflection of how complex the process is.

How can researchers and practitioners help to address the how question? While this is a new area, still requiring considerable methodological development, the general shape of a research agenda has been emerging in recent years. This combines elements of various social sciences, in particular economics and sociology, and involves using both case studies and theory to improve our understanding of how institutions appear, persist and/or evolve. This research is largely academic in nature and thus a remaining priority is to see how this research can build on and also assist organisations seeking to promote institutional and overall socio-economic development.

Tripp⁴⁸ emphasises that both scholars and the development community are “still a long way from being able to explain how and why change takes place”. Our ability to predict the direction or identify the causal relationships is limited. And it probably always will be limited, given the difficulties in generalising about institutional change across quite different circumstances⁴⁹. Limited does not mean though that progress is not possible and indeed this is one of the most rapidly developing areas of social theory today.

One of the issues in how to achieve institutional change is whether rules and governance structures that are successful in one situation (or country) can be imitated to apply in another situation (or country)? Figure 1 partly answers this question. An institution at a lower level should fit within the institutions of a higher level. Thus institutional arrangements should fit within the institutional environment. But institutional environments should fit within the social norms etc. If the match is not there, then the organizational arrangements and formal rules may be ignored or ineffective, or lead to other, not necessarily intended consequences.

The experience of many Latin American countries, who modelled their constitutions after independence in the early nineteenth century on the U.S. example, indicates that establishing formal rules in the form of a constitution is not sufficient to stimulate institutional change. These formal rules need to be embedded in supportive norms. And the history taken by the evolution of power and the accumulation of economic assets also conditions what is possible.

More concretely, the World Bank devoted considerable resources to judicial reform projects in the 1990s⁵⁰. Such initiatives concentrate on improving the effectiveness and efficiency of the court system (including lawyers). For example, this may involve the training of judges and reforming laws, particularly those prescribing the rights and jurisdiction of courts, the government and the legislature. A review highlighted though that little was known about what makes such an initiative successful. Indeed, it was also found that initiatives should “try to bolster or complement informal enforcement mechanisms”, as well as the targeted formal system⁵⁰. Studies of how parties enforce “contracts”⁵¹ in Africa find that the legal system is of secondary importance next to the use of relationships and reputation⁵². The example given in Box 4 on micro-credit illustrates the importance of relationships and reputation as enforcement mechanisms.

Thus developing an institution, creating a new one, or transferring an institution from one situation to another all should answer the question of whether this is possible. An institution can only be successful if it is respected or can be enforced. Writing up new rules (e.g. laws) is relatively simple – but if this new rule is not applied, respected or enforced, it is not effective, and one may argue that this does not equal an institution. Key questions are then why formal rules are not enforced, and related, how could they become enforceable?

Although the issues involved in institutional change are complex, there is scope for adapting institutions from one place and transferring them to another place⁵². Institutional innovations do occur and are copied by economic actors. When this is done by external actors, such as development organizations, it may be difficult to predict how the new arrangements will function within a different environment, in particular a rather different set of informal norms and beliefs (i.e. culture). A major task for research that can guide policy is to better understand this process.

We have seen that a major emphasis in the development of institutions, particularly those to promote exchange, concerns the emergence of informal norms and beliefs that encourage exchange between strangers⁵³. This process can be illustrated with the example of the development of markets for providing farmers with a greater choice and quality of seed. Seed is a good that presents many difficulties for efficient transacting. Farmers can know very little about the quality, performance and general characteristics of seed when they purchase it. These aspects will only become known after planting and even harvesting, at which point the seller of the seed can easily be long gone. Thus the development of seed markets has been based partly on growth of reputation and trust among seed providers and farmers. Using this example of seed markets, Tripp suggests that “development programmes need to identify cases where the process has begun and to build upon such “islands of trust” that can serve as examples for the wider economy”⁵⁴.

The importance of networks has been discussed above. While little is known about how social networks come into existence or evolve, development initiatives have often been successful in bringing groups together and promoting contacts that otherwise would not have occurred. In some sense, this ability to foster new networks may offer some opportunities for promoting institutional change⁵⁴.

The link between learning and institutional change has already been touched upon briefly. Learning can lead to institutional change when groups reflect on how current formal and informal institutions affect certain goals or problems, conflicts and social dilemmas and how change in formal and informal institutions can lead to an improved situation. Such learning processes are continuously ongoing in societies. The issue here is how these can be actively stimulated and facilitated.

Several approaches have been developed in the past. For instance several joint learning processes such as farmer field schools have been used for improving agricultural production and technology⁵⁵. Multi-stakeholder platforms are an approach to facilitate social learning. Woodhill⁵⁶ argues that social learning is more than learning in a group setting: “it involves understanding the limitations of existing institutions and mechanisms of governance and experimenting with multi-layered, learning-oriented and participatory forms of governance”. Thus multistakeholder processes can be considered as the “practical application of a social learning ‘philosophy’ to a specific situation”⁵⁷. A key ingredient in multistakeholder platforms is the development of the capacity for learning and innovation through a “high level of facilitation skills and enlightened leadership from within stakeholder groups”, which links up the area of capacity development with institutional change.

Linked to this is the recent interest among development assistance organizations for supporting the institutional development that contributes to poverty reduction has centred on a number of strategies for empowering the poor. Empowerment is seen as a means for the poor to improve their ability to organise and lobby for a larger share of resources (public or private), but also to tilt the evolution of rules (e.g. property rights regimes) more in their favour. For example, the 2001 Poverty Report of IFAD⁵⁸ identifies three approaches by which development assistance and interventions can contribute to empowering the poor:

- blend of devolution and collective action for natural resources management
- delivery of financial services to the poor to improve their access to credit
- developing linkages with NGOs and private sector as partners for service delivery

Thus, in terms of the framework developed here, empowerment initiatives attempt to support poorer individuals to establish and exercise basic rights over themselves (protecting persons). Such initiatives are also intended to improve the bargaining position of the poor relative to non-poor in the ongoing processes by which the formal, and also informal, rules are maintained or (hopefully) changed.

But such initiatives may not necessarily lead to their intended empowerment effect. For example, through the devolution of authority, decisions concerning public service delivery may be allocated to local government authorities that might be more accessible to poorer farmers. But there may also be the risk that local elites have greater chance to appropriate resources for their own benefit. Another example concerns property rights to land; poor farmers may be excluded either intentionally or coincidentally in such a titling scheme. These illustrations highlight the need to look not only at rules but also the constellation of access to resources and relationships between different groups.

5. Key examples of institutional arrangements embedded in institutional environment

This section briefly discusses two areas that illustrate the role played by formal and informal institutions in agricultural development: markets for seed (a key input in agricultural production) and agricultural product markets (output markets). Both provide examples of how improved economic opportunities are related to changes in institutions to promote exchange and/or to protect property.

Input market: seed

The Green Revolution provides an example of how technology and institutions interacted in economic change. Many accounts of the successes and (geographical) limits of the introduction of modern high-yielding varieties (HYVs) concentrate on the suitability of these varieties for relatively controlled production environments (achieved with irrigation and the application of fertilisers and pesticides). Where agro-ecosystems are more diverse, or marginal, such varieties are less appropriate and hence the need for alternative breeding strategies or technologies less dependent on the provision of improved germplasm and more on cropping and farm management practices in terms of natural resource management⁵⁹. This approach runs the risk of overlooking the complementary role and evolution of institutional arrangements in the adoption of HYVs, which has recently been highlighted by Dorward et al⁶⁰.

Seed provision is one of the best examples for examining the agricultural development process⁶¹. The supply of seed to farmers can be undertaken and managed by farmers, commercial firms or state agencies. Farmers select, develop and maintain varieties since cultivation began. Only more recently have commercial enterprises engaged in seed production and breeding for major staple crops in developing countries. In addition, governments have played a significant role in this process including both supplying seed and regulating this process (e.g. through certification of seed and licensing of producers) when undertaken by other actors. The seed sector has thus also been the subject of numerous donor initiatives. In general, the commercialization of seed production has been a defining characteristic of productivity improvements in agriculture. Much of these improvements can be thought of as comprising the adoption of new technologies, as new varieties often come 'bundled' together in a technology package (with the Green Revolution's HYVs representing the strongest example).

Thus seed provision provides a useful means of examining the course of agricultural development. This goes beyond an understanding of the basic economics of changing production systems to also include insights into the changing nature of formal and informal institutions in agriculture.

The development of commercial seed markets depends on the formal and informal rules, norms and beliefs that improve the flow of information concerning seed and its providers, and thus promote exchange. Tripp⁶¹ proposes that three different kinds of information are important in seed provision: technical information, economic information and reputations. Farmers are often lacking information about the specific attributes of varieties, including both traditional and modern varieties. In many

circumstances, plant breeders in the public and private sectors do not have enough access to the technical requirements of farmers. Economic information refers to the knowledge of prices, quantities and movements in both input and output markets. Reputations of those selling seed or producing seed on contract are also a form of information that is particularly important in the development of seed provision systems involving exchange. Price and credit issues aside, farmers will understandably only purchase seed on the basis that the risk of dishonest sellers and poor quality is low. Eventually, certification organizations, such as those often established by the government, can help reduce this risk. But the principal means of assessing the reliability of information received about varieties being sold is reputation and trust that may be established only over the course of time.

The development of seed provision systems can thus be seen as a process by which the availability of information improves for various actors. This occurs through changes in various adaptations in informal and formal rules, norms and beliefs. Informal norms concerning the purchase of seed may evolve to add commercial agents (often with representatives from the local community) to the list of potentially trustworthy sources of seed. Formal rules concerning the regulation and certification of the agronomic qualities of modern varieties may be instituted to also increase the trustworthiness of information provided by commercial seed providers themselves.

So while there may be apparently obvious technological opportunities for the adoption of new varieties, constraints can equally exist in the economic institutions. Where these relate to formal rules, solutions involving legislation and government initiatives help. But overcoming constraints based more on informal institutional arrangements presents more challenges. In particular, the issue of trust and reputation in seed production and sale is seen as a stumbling block in many situations⁶¹.

Output market (supply/value chain arrangements)

The organisation of output markets provides another useful example for illustrating the important role played by the development of institutions in the growth of the agricultural sector. The previous example looked at one of the most important inputs – seeds – while the discussion here concentrates on the next step in the supply chain: sale of harvested products. Currently, there is much discussion and research concerning trends in vertical coordination and integration in agricultural supply chains, with particular interest in the issue of bargaining power and dependency between various actors. But it is instructive to place that within a framework that explains the emergence and growth of markets for farm products (or the failure of such a process).

Markets for agricultural products (output markets) can be viewed as an economic institution comprising organisation arrangements governed by a set of both formal rules and informal norms. The formal rules include in particular laws and other rules concerning both the protection of private property and the enforcement of contracts. In the area of agricultural commodities, specific other rules often apply, for example with respect to safety and quality standards. There may also be rules prescribing requirements or licensing of traders in such markets. Informal beliefs and norms mediating exchange in a market for agricultural products also characterise the nature and efficiency of the market mechanism. Similar to seeds, the amount and distribution of trust among actors is particularly important (sometimes this is the main concept implied by the use of the term, *social capital*; see for example Fafchamps and Minten⁶²).

Kherallah et al.⁶³ classify the organisation of markets for food commodities in Africa into three types: relatively open; price intervention with limited parastatal involvement; and extensive involvement of parastatals in pricing, procurement, and food rationing. The development of more efficient markets for agricultural products can be seen as a process by which the institutional elements – both formal and informal – evolve in such a way that transactions costs are reduced. A reduction in transactions costs means that agricultural products can move from farm to consumer more efficiently, that is at lower cost, or mark-up (a smaller gap between consumer and producer prices). The mark-up is also due to transport and storage costs which can also be reduced, but research indicates that finding ways to economise on the transactions costs in general is the constraint to achieving economies of scale⁶⁴ in

transport and storage⁶². In some situations, certain traders may not have an immediate economic interest in pursuing such efficiency gains, if this undermines their profits.

Reducing transactions costs involved in the exchange of agricultural products is confronted by a number of technical challenges (aside from possible issues of political economy alluded to in the previous paragraph). One of the most important of these is the typically small scale of primary production on the farm, together with the high degree of variation in quality or other characteristics. The higher degree of variation means that traders have to inspect products at each transaction while the small scale of production means that there are more of these transactions, and thus inspections⁶⁵.

This situation is in fact a general one found in most agriculturally dominated economies. Economies of scale can be achieved by reducing the number and increasing the size of transactions, primarily at the farm end of the chain, but also by reducing the quality variation⁶⁶. The process of increasing the size of transactions has involved the bringing together of farmers into organisations such as cooperatives or associations from which buyers then purchase the combined harvests of numerous farms. To some extent, this process involves a shifting of transactions costs from buyer to seller(s). But combined with a reduction in the variability of the product delivered, this can bring economic benefits for both parties. For example, groups of farmers working through an association can make commitments to deliver certain specified qualities (including specific characteristics) to buyers. Product variations are reduced by the use of new varieties of (commercial) seed that are relatively stable and uniform compared to traditional varieties (as discussed above).

These types of developments that reduce transaction costs can generally be thought of as formal rules, including new ways of organising how things are done. But the viability of such formal rules and the effect they have depends also on informal norms and beliefs. Again, the development of trust (a form of social capital) among market participants has received the most attention here. Such trust is often manifested among social networks involving buyers and/or sellers which may be based on social ties such as family, tribe, or language.

The importance of informal rules highlights an important point concerning the danger of trying to achieve such economies of scale through top-down or imposed initiatives to raise the scale of production, even if well-intended. Such schemes are likely to ignore important constraints on the behaviour of farmers or other market actors.

Recent research on the development of market institutions in Sub-Saharan Africa has thus concentrated on the important role played by a number of institutional factors, both formal and informal: the development of trust, property rights, and improving the accessibility of players to information⁶⁷. This has led to further research and even investments in experimenting with a range of strategies to address these issues, including establishing market information systems, grades and standards, commodity exchanges, and setting-up various arrangements (such as producer associations, cooperatives, or contract farming) that enhance the flow of information and also transactions between farmers and output markets (or their intermediaries)⁶⁸ and reduce transaction costs. For the most part, these initiatives are limited by necessity to changes in formal rules governing both property rights and their transactions. But to some extent, the introduction of arrangements to link farmers and purchasers may contribute over time to changes in informal norms and beliefs, in particular the development of trust.

In general the situation with vegetable crops is similar to that in staple commodities. Markets for vegetable crops are characterised by the same general features: large number of small transactions and varying quality. There is perhaps some degree of difference, particularly in the scale of production. Vegetables generally form a smaller share of food intake and are more costly (in terms of labour and other inputs such as water) to produce. In addition, the possibilities for storing more perishable products are limited.

The example of agricultural output markets illustrates the importance of institutions in understanding the process of economic development. The 1980s ushered in an era of unprecedented liberalisation of these markets in developing countries. The diverse results highlights that the seemingly simple aim of 'letting markets work' tends to ignore the richness of the institutional fabric involved. To what extent and in what manner markets develop depends on the set of formal and informal institutional components that govern or condition exchange between buyers and sellers.

6. Conclusion

This chapter has summarised some recent thinking on markets and the role of market institutions in agricultural development. Particular attention has been given to the relevance of this growing field of research to promoting agricultural development. So what does all this imply for the formulation of policy and interventions that aim to promote sustainable and equitable economic growth in the sector?

One important issue concerns thinking about the broader definition of institutions employed here. In the early years of capacity development and institutional strengthening initiatives in development assistance programmes, attention concentrated primarily on enhancing the capacities of organisations – such as government ministries, public agencies, farmer associations and cooperatives – to carry out their formal tasks. The reasoning was essentially that these organisations were failing to perform these tasks sufficiently due to a lack of specific expertise among staff or physical resources.

This focus was then expanded to recognise the wider institutional environment within which organisations operate. This led to attention for what has here been termed the institutional components in terms of formal rules, particularly legislation (and its implementation) and other regulations. Property rights, for example to land, are an example of a popular topic in institutional development.

At roughly the same time, the withdrawal of direct government intervention in the organisation of agricultural input and output markets in many countries has been followed by a growing diversity of organisational forms and governance structures. The private sector (including foreign firms) has been the driver of these institutional innovations that attempt to coordinate various agricultural supply chains. Experiences in higher value horticultural products have received attention from policymakers, practitioners and researchers, with the growing role of supermarkets and concerns about exclusion of smallholder producers being recurrent themes.

More recently, the role of informal institutions – summarised as norms and beliefs – has been recognised. From one perspective, evaluation of capacity development initiatives pointed towards the importance of the wider institutional environment in which organisations are embedded as critical for explaining success or failure of these initiatives. From another perspective, researchers have realised that the consequences of specific rules or organisational forms also depend on the wider cultural setting. Furthermore, these interactions have become a fast-growing area of systematic analysis. In particular, as seen in this chapter, the development of trust among individuals and within networks plays an important role as a basis of the functioning of organisations as well as more efficient market interactions.

There has thus been a broadening of relevant issues in the field of institutional development. This does not mean that capacity development initiatives are less important, or that searching for improvements in laws and the legal system should receive less attention. The point is that in considering what types of strategies an 'outsider' can pursue, the range of options has become broader and more complex. The challenge is to find opportunities where all such elements can be combined.

If changes in norms and beliefs are required in order for markets and production to become more efficient in given circumstances, this is clearly a daunting challenge. It can also possibly lead to

(renewed) charges of 'cultural imperialism'. But the associated risks do not remove the need to address where the constraints actually lie. For example, what opportunities are there for introducing and promoting new forms of interaction among farmers and also with traders? What forms of interaction help the deepening of networks and the expansion of social capital so that risks are reduced and more productive exchange relationships are achieved? Some simple initiatives have illustrated the benefit from increased access to information for farmers.

It has often been noted that efforts to strengthen the capacity of organisations require a long-term perspective and investment. It may be tempting to conclude that institutional change in the form of changes in informal beliefs and norms only lengthens this time horizon. While this may well be case, there may still be opportunities for faster gains. But the timeframes involved are still likely to be longer than the typical three, four or five-year assistance project.

It is important to make one last point concerning institutions and technology, as this chapter has devoted most of its attention to the former. This focus should not be interpreted as meaning that a sufficient adjustment of institutions – including even beliefs (!) – can overcome all problems in agricultural development. Opportunities to produce and transform agricultural goods are also defined by technology and available resources (climate, land, labour, capital). This being said, there are clearly many situations where available technological possibilities are not being exploited. The message of this chapter is that even more attention is necessary to understand the economic, social and political (that is, institutional) reasons why this is so and to continue developing strategies to address them.

7. Notes

¹ For example see: DFID, 2005. *Growth and Poverty Reduction: the Role of Agriculture*. Department for International Development, London, OECD, 2006. *Promoting Pro-Poor Growth: Agriculture*. Organization for Economic Co-operation and Development, Paris, UN Millennium Project, 2005. *Halving Hunger: It can be done*, New York.

² See <http://www.regoverningmarkets.org/>

³ Such as UN Millennium Project, 2005. *Halving Hunger: It can be done*, New York, OECD, 2006. *Promoting Pro-Poor Growth: Agriculture*. Organization for Economic Co-operation and Development, Paris, DFID, 2005. *Growth and Poverty Reduction: the Role of Agriculture*. Department for International Development, London.

⁴ The analysis is essentially one that synthesises thinking within the 'new institutional economics' and relating this to practical questions concerning agricultural development programmes. It is hoped that a next step would broaden the synthesis to include wider disciplinary and professional perspectives.

⁵ Here loosely defined as a set of well-defined concepts and propositions concerning how various elements in these concepts are related, particularly through cause-effect relationships.

⁶ Other very general means by which resources are allocated between individuals include various forms of organisations, such as companies, or government agencies. In such cases, the use of resources such as labour and physical material is decided in a command-and-control sort of hierarchy. In less commercialised societies, the allocation of resources is often decided upon through personal relations between individuals, effectively a form of gift-giving Fafchamps, M., 2001. The role of business networks in market development in Sub-Saharan Africa. In: Aoki, M. and Hayami, Y. eds. *Communities and Markets in Economic Development*. Oxford University Press, Oxford, 186-214. .

⁷ Fafchamps, M., 2004. *Market institutions in Sub-Saharan Africa : theory and evidence*. MIT Press, Cambridge, M.A.

⁸ Reardon, T., Pingali, P. and Stamoulis, K. 2006, 'Impacts of Agrifood Market Transformation during Globalization on the Poor's Rural Nonfarm Employment: Lessons for Rural Business Development Programs', In 26th Conference of the International Association of Agricultural Economists (IAAE). Gold Coast, Queensland, Australia.

⁹ Aoki, M., 2001. *Toward a comparative institutional analysis*. MIT Press, Massachusetts.

¹⁰ North, D.C., 1990. *Institutions, institutional change, and economic performance*. Cambridge University Press, Cambridge.

¹¹ Horton, D., Alexaki, A., Bennett-Lartey, S., et al., 2003. *Evaluating Capacity Development: Experiences from Research and Development Organizations around the World*. International Service for National Agricultural Research (ISNAR), the International Development Research Centre (IDRC) and the ACP-EU Technical Centre for Agricultural and Rural Cooperation (CTA), The Hague and Wageningen, The Netherlands, and Ottawa, Canada.

¹² North, D.C., 1990. *Institutions, institutional change, and economic performance*. Cambridge University Press, Cambridge.

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- ¹³ Institutions are thus an important part of culture which can be defined as the "transmission from one generation to the next, via teaching and imitation, of knowledge, values, and other factors that influence behavior" Boyd, R. and Richerson, P.J., 1985. *Culture and the evolutionary process*. University of Chicago Press, Chicago., as cited by North (1990).
- ¹⁴ Williamson, O.E., 2000. The New Institutional Economics: Taking Stock, Looking Ahead. *Journal of Economic Literature*, 38 (3), 595-613.
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- ¹⁷ Sometimes a fourth, the (extended) family, is added
- ¹⁸ Bowles, S., 2004. *Microeconomics: behavior, institutions, and evolution*. Princeton University Press, Princeton, NJ.
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- ²⁵ In this sense, markets refer to relatively short-term transactions (often repeated) between people as opposed to longer-term agreements which are found for example in firms, companies or other forms of more permanent organisation.
- ²⁶ Fafchamps, M., 2004. *Market institutions in Sub-Saharan Africa : theory and evidence*. MIT Press, Cambridge, M.A.
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- ³⁰ Such unintended effects are often termed 'externalities', a term that refers to the idea that the unintended effect is external to the considerations taken into account by the actor causing it. The considerations are determined by the rights and responsibilities, in other words the property rights. Pollution is a classic example of a negative externality. Taking the case of agriculture, the traditional definition of property rights for farmland does not involve any restriction concerning the amount of agrochemicals that can be applied. As this practice increased, the complaints of those negatively affected by the resulting pollution of water resources has led to a modification of property rights in many countries, involving for example, restrictions on the amount of such chemicals that may be applied.
- ³¹ Libecap, G., D., 2002. A transactions-costs approach to the analysis of property rights. In: Brousseau, E. and Glachant, J.-M. eds. *The Economics of Contracts: Theories and Applications*. Cambridge University Press, Cambridge, U.K., 140-156.
- ³² Social capital differs from human capital in that human capital refers to individuals (e.g. their expertise and knowledge), while social capital refers to groups. Putnam, R., 1993. *Making democracies work*. Princeton University Press, Princeton, NJ.
- ³³ Johnson, C.A., 1997. *Rules, Norms and the Pursuit of Sustainable Livelihoods*, 52.
- ³⁴ Sugden, R., 1989. Spontaneous Order. *Journal of Economic Perspectives*, 3 (4), 85-97.
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- ⁴⁰ Dolfsma, W., 2007. Regels maken vlegels. *ESB*, 15 december, 669.
- ⁴¹ Fafchamps, M., 1999. *Networks, Communities, and Markets in Sub-Saharan Africa: Implications for Firm Growth and Investment*. Centre for the Study of African Economies, Oxford, U.K.
- ⁴² The Luo are an ethnic group originating primarily from Western Kenya.
- ⁴³ Fafchamps, M., 2004. *Market institutions in Sub-Saharan Africa : theory and evidence*. MIT Press, Cambridge, M.A.
- ⁴⁴ Some argue that broad prescriptions may not even be possible given the difficulty in generalizing across situations whose differences are equally as important as their commonalities.
- ⁴⁵ IAC, 2002. *Realizing the Promise and Potential of African Agriculture*. InterAcademy Council, Amsterdam, The Netherlands.
- ⁴⁶ Here we need to distinguish between institutional or capacity development meant to improve the hardware (e.g. infrastructure) and software (e.g. skills) and institutional development meant to improve rules, lower transaction costs etc. With the first, a lot of (positive) experience has been gained, while with the second not much track record has been recorded.
- ⁴⁷ Löffler, H., Jiggins, J., Woodhill, J., et al., 2007. *The role of Agriculture in achieving MDG1: an expert survey*. , Wageningen.
- ⁴⁸ Tripp, R., 2001. *Seed provision and agricultural development: the institutions of rural change*. Overseas Development Institute (in association with James Currey, Oxford and Heinemann, Portsmouth, NH), London.
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- ⁵⁰ Messick, R.E., 1999. Judicial Reform and Economic Development: A Survey of the Issues. *World Bank Research Observer*, 14 (1), 117-136.
- ⁵¹ A contract is here used to refer generally to agreed terms for a specific transaction, which is not necessarily enshrined in a legally-binding document.
- ⁵² Fafchamps, M., 2004. *Market institutions in Sub-Saharan Africa : theory and evidence*. MIT Press, Cambridge, M.A.
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- ⁵⁵ van den Berg, J. and Meijerink, G. 2005, 'Joint Learning in Applied Development Research' LEI: The Hague, pp. 15.
- ⁵⁶ Woodhill, J., 2004. *Facilitating Complex Multi-Stakeholder Processes - A Social Learning Perspective*. Wageningen International, Wageningen.
- ⁵⁷ A range of methodologies and tools has been developed, see for instance the MSP resource platform at <http://portals.wi.wur.nl/msp/?Introduction>
- ⁵⁸ IFAD, 2001. *Rural Poverty Report 2001 - The Challenge of Ending Rural Poverty*. IFAD, Rome.
- ⁵⁹ Hazell, P., 2001. Agriculture and the environment. *Environment and development economics*, 6 (4), 503.
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- ⁶³ Kherallah, M., Delgado, C., Gabre-Madhin, E., et al., 2002. *Reforming agricultural markets in Africa*. Johns Hopkins University Press for the International Food Policy Research Institute, Baltimore, M.D. and Washington D.C.
- ⁶⁴ Economies of scale refers roughly to lowering average costs through higher volumes.
- ⁶⁵ Fafchamps, M., 1999. *Networks, Communities, and Markets in Sub-Saharan Africa: Implications for Firm Growth and Investment*. Centre for the Study of African Economies, Oxford, U.K.
- ⁶⁶ Note that increasing the scale of individual transactions does not have to mean a less labour-intensive form of production. Over the longer-term though, economic welfare of a person is measured primarily in the returns (physical and financial) to their labour efforts.
- ⁶⁷ See for example Fafchamps, M. and Minten, B., 2001. Property rights in a flea market economy. *Economic Development and Cultural Change*, 49 (2), 229-268, Fafchamps, M., Gabre-Madhin, E.Z. and Minten, B., 2002. *Increasing Returns and Market Efficiency in Agricultural Trade*. Centre for the Study of African Economies, Oxford, U.K., No. 177.
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Acknowledgements

Research for the Strategy & Policy Papers has been executed by Wageningen UR through grants from the Netherlands Ministry of Agriculture, Nature and Food Quality ([link](#)) and from the Directorate General for International Cooperation (DGIS) of the Netherlands Ministry of Foreign Affairs ([link](#)).

This series of Strategy & Policy Papers is a result of the programme *International Cooperation and International Agreements*, executed by Wageningen UR through a grant of the Netherlands Ministry of Agriculture, Nature and Food Quality.

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