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**Trust and power in farmer-trader relations: A study of small
scale vegetable production and marketing systems in Ghana**

Ph.D. Thesis

Fergus Lyon

**A thesis submitted in fulfilment of the requirements for the degree of Doctor of
Philosophy to the Department of Geography, University of Durham, UK**

2000

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Abstract

This thesis explores issues of trust and power in marketing and finance relations for small scale farmers and traders in Ghana. It is based on detailed qualitative and quantitative surveys with vegetable farmers, traders and agricultural input sellers in the Brong Ahafo Region. The study concentrates on the livelihood coping strategies of farmers and traders, and the indigenous institutional forms of marketing, finance and access to resources. The historical and environmental contexts of these institutions are explored. Of particular interest are the social relations and networks within rural areas and between urban and rural areas that allow actors to access informal credit and information with contracts based on trust. The mechanisms by which trust is created include the formal and informal networks of working relationships, customer friendships, pre-existing networks and intermediaries.

The study of the marketing system shows how farmers' and traders' enterprises in the area build up bargaining power, and how the dynamics of these power relations change. The roles of trader associations are also explored. These are strong indigenous groups of women traders which have been able to sustain cooperation over many years despite restrictions, and in contrast to many other forms of collective action.

The analysis relates the findings to the literature on socio-economics, institutional economics, collective action and concepts of social capital. The findings have broader relevance in that they explore the concept of social embeddedness of economic action, and the need to base developmental intervention on existing systems if there is to be support for sustainable rural livelihoods.

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Abstract

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The study of the marketing system shows how farmers' and traders' enterprises in the area build up bargaining power, and how the dynamics of these power relations change. The roles of trader associations are also explored. These are strong indigenous groups of women traders which have been able to sustain cooperation over many years despite restrictions, and in contrast to many other forms of collective action.

The analysis relates the findings to the literature on socio-economics, institutional economics, collective action and concepts of social capital. The findings have broader relevance in that they explore the concept of social embeddedness of economic action, and the need to base developmental intervention on existing systems if there is to be support for sustainable rural livelihoods.

Chapter 1 Introduction

1.1 Rationale

Income generation is a key factor in support of sustainable rural livelihoods. The ability of individuals or groups to develop enterprises depends on opportunities generated by the market and also the ability to create the links and networks that provide information, credit and other forms of support. The interaction of farmers and traders, and the nature of the links between them, have rarely been studied in detail. This thesis aims to analyse these interactions by addressing two interconnected issues, one practical and one theoretical. First, the research examines the strategies of farmers and traders that facilitate their access to resources for production and marketing opportunities, and the historical precedents that shape and constrain their actions. Second, the case study is used to explore broader issues of trust and power in economic interactions.

The case study of small scale tomato farmers and traders in the Brong Ahafo Region, provided in this thesis, explores the workings of a growing urban market through a detailed study of market relations. It considers how social relations and market processes can be understood and how the formation of trust, power and cooperation can be conceptualised. A richer understanding of market processes is needed in order to move away from the existing situation of poorly conceived development interventions, especially related to the promotion of market oriented strategies such as small enterprise development.

This thesis develops the concept of embeddedness of economic action in relation to rural development in Ghana, grounding the analysis in a case study and drawing on the literature of economic geography, institutional economics and economic anthropology. The embeddedness approach, developed by Mark Granovetter (1985), calls for a social analysis of economic action that is neither over- nor under-socialised. This involves the study of individuals' agency where action is set within structures of social relations. Of particular interest are the changing patterns of social relations. To understand how markets work, it is necessary to find out how social relations are formed and are

sustained. This includes developing a clearer understanding of how individuals and groups build up relations and how they are used.

1.2 Entry into the subject

The subject of this thesis emerged while working in Ghana for the UK Overseas Development Administration (now the Department for International Development). I was attached to a research project as a social scientist working with agricultural researchers on post harvest technology development. It was my role to ensure that the research involved the participation of beneficiaries and that potential interventions would fit into the existing marketing system.

It soon became apparent that the existing system for marketing tomatoes involved a set of highly complex, dynamic and diverse institutional forms. Throughout my 18 months work in Ghana for ODA, I was able to observe these institutions. It was evident that a crucial factor in the operation of the tomato production and marketing system was a set of social relations that allowed many of the transactions to take place and shape the outcomes. These social relations are centred around issues of trust and power. I found that difficulties encountered in conceptualising these issues within mainstream economic theory meant that they were ignored by the development process. This is due to the pivotal role that neo-classical economists have had in the development agencies.

I was dissatisfied with the neo-classical approaches that ignored these issues, and also uncomfortable with the more structuralist-Marxist approaches that did not allow sufficient attention to be paid to how individuals have room for manoeuvre. I realised that a case study of these tomato traders and farmers could open up new areas of interest and address the failings identified within mainstream development theory. With this in mind, and with the opportunity to start a PhD, I set about exploring the literature on social relations in economic activity. Mark Granovetter's seminal 1985 paper on 'Economic action and social structure: the problem of embeddedness', provided a theoretical context. This paper encapsulated the ideas of a continuum

between agency and structure that fitted with my earlier studies that drew on 'actor oriented approaches' to development studies (Long, 1992b).

The ideas developed in the thesis are based on an inductive analysis of the tomato markets of Ghana. The research process benefited from my previous experience of living and working amongst the farmers and traders. The research was driven by what was observed, rather than simply seeing research as the exploration of some hypothesis set after a literature search in British libraries. I returned to Ghana to explore the issues of trust in more detail and have had the opportunity to visit Ghana for extended periods twice since then. The initial work was wholly qualitative, although a short questionnaire survey was carried out towards the end of the research period concentrating on the extent to which there were contracts based on trust.

1.3 Research issues

The thesis is centred around a set of research issues or questions identified during the research process. I have attempted to explore the institutional forms throughout the tomato production and marketing system, starting with the farmers, then moving to the interaction of farmers and traders and finally examining the urban marketing systems.

The central research questions can be stated as:

What are the interactions of farmers and traders that allow them access to resources for production and marketing and what is the nature of these links?

Four sets of subsidiary research questions shape the structure and organisation of the thesis. Each question relates to the institutional forms that exist, and how the analysis of the nature of these institutions contributes to the examination of relations of trust and power.

How do farmers access resources to farm?

Farmers are not able to participate in tomato production and marketing unless they have land, capital, labour and inputs. The institutional forms used to obtain access to these key resources are explored in detail.

How do farmers access markets and how do traders access producers?

What shapes the marketing process and the prices received by farmers?

How are the farmers and traders able to obtain information?

How are the traders able to secure access to finance for trade?

The livelihoods of the farmers and traders are shaped by the outcome of their interaction. The complexities of the different marketing strategies were examined with attention paid to those social relations of the market required to obtain access to information and finance.

How are the urban market systems organised?

How can the role and survival of traders' associations be explained?

Continuing the exploration of the nature of the marketing system along the food chain, led to the study of urban marketing systems. These are dominated by market associations that play a major role in the interaction of itinerant traders and retailers. The investigations reveal how social relations shape the institutional forms identified.

How are the social relations, based on trust and power, built up, shaped and modified?

This question draws together issues that became apparent as the previous research questions were tackled. The issues of trust and power emerged as key factors in understanding the marketing and livelihood systems of the farmers and traders. For these issues to be analysed and researched, it was necessary to gain a clearer conceptualisation of how they are built up and how they operate.

1.4 Structure of the thesis

The thesis can be considered in five sections. The first sets out the theoretical approaches and the methodology used to address the research questions (chapters two and three). Second, there is a contextual chapter that details the social, political, historical and environmental setting of the case study (chapter four). The third section is comprised of three empirical chapters that explore the social relations and

institutions in the case study (chapters five, six and seven). The fourth section refers back to the theoretical issues posed in chapter two and draws on the empirical work to contribute towards an institutional theory of market relations (chapter eight). The final section concludes the thesis and draws out the implications for development theory and policy (chapter nine).

Chapter 2. Theoretical approaches to understanding economic behaviour, markets and rural development

2.1 Introduction

This chapter covers a broad range of theoretical approaches to understanding marketing systems and economic behaviour. The discussion provides an overview of past and present major research paradigms¹ in development studies and relevant social science disciplines covering structuralist approaches, neo-classical economics and institutional economics. The chapter then draws on studies in geography, anthropology and sociology to develop a framework for analysing social relations in marketing systems and addressing the research questions set out in the introduction.

A theoretical framework for the research is proposed that is centred around an actor oriented approach which allows for a balance between structure and agency in research. How this approach can be used in the study of market relations is explored, drawing on the literature of 'New Economic Sociology', 'socioeconomics' and theories of the embeddedness of economic action in social structures. I argue that these approaches open up opportunities for examining the concepts that are central to an understanding of the social relations underlying the market process, namely networks, norms, trust and power relations.

2.2 Neo-classical approaches

Changes in theoretical approaches in development studies reflect, amongst other things, political changes in international affairs and policy. The present context for economic and social development policy is shaped by the International Monetary Fund/World Bank led efforts to promote the liberalisation of economies, reduce the role of the state and encourage democratic governance. Enhancing the role of the private sector has been at the centre of much recent policy originating from

multilateral agencies and western donors. These approaches have been pioneered by economists promoting an emphasis on neo-classical economic theory in applied development. This paradigm presents economics as a science with universal laws and a replicable model but cannot fully accommodate social and cultural issues. The strengthening of this position since the mid 1980s is related to the decline in structuralist/Marxist analyses that has mirrored the political shifts in Eastern Europe and other parts of the world.

The rational choice theories that underpin neo-classical approaches have also influenced the formalist paradigms of anthropology (Plattner, 1989b) and location theory in economic geography, especially during the 'quantitative revolution' in the 1960s to 1970s. The approach was used to explain how factors of production are allocated within and between regions. These approaches explored the production-based environmental and technical conditions of existence. Much location theory drew on the von Thunen model that explores how land use differs with according to distance from a market (von Thunen, [1826] 1966). This approach concentrated on transport costs and assumed the environment to be uniform. Other applications of neo-classical approaches to economic geography include Central Place Theory, building on the work of Christaller ([1933] 1966). This theory is used to account for the size and location of urban market centres and has been applied to a range of locations (Bromley, 1978; Skinner, 1964; Barrett, 1986). While the early models were useful for the description of patterns, their ability to generate explanations was limited (Barrett, 1986:221).

The neo-classical approaches see the allocation of scarce resources through the use of market prices, leading to an "equilibrium position". The effectiveness of the allocation of resources is investigated through analysis of prices which summarise information about availability of resources, production possibilities and consumer preferences (Scarborough and Kydd, 1992: 3). The main area of research covers economic performance of markets by looking at economic efficiency objectives

¹ The 'Kuhnian' idea of a paradigm is used here in a loose sense as there is never a clear cut division between different approaches.

(technical, operational, exchange efficiency) and other objectives such as innovation, equity, and food security. A review of these is beyond the scope of this chapter.

Neo-classical economics can be seen as “an approach whereby they [economists] derive rigorous propositions from a set of well-defined assumptions which just tell a ‘plausible story’ about the world” (Baland and Platteau, 1993:17). Proponents of the approach argue that it is a “sufficiently accurate picture for modelling real events ... or that it portrays a desirable state of affairs for policy makers to work towards” (Poulton et al, 1996: 10). In this sense it is normative and prescriptive (Plattner, 1989b:7).

The assumptions taken limit the descriptive ability of neo-classical approaches, especially in non-western societies where the assumptions may hold less relevance (Plattner, 1989b:12). Berry (1998:1) states diplomatically that

“one of the principal strengths of economics as a discipline lies in its insistence on the exhaustive pursuit of rigorous self criticism of logical arguments and systematic testing of precisely formulated hypotheses. These pursuits are founded on a formal body of theoretical argument which derives clarity and power from its increasing use of mathematical language and modes of reasoning, and coherence from its continued adherence to a core of common assumptions. The consistency of foundational principles has both enabled the development of a highly abstract and sophisticated body of theory, and limited economics’ contributions to understanding the often messy and ambiguous realities of social life”.

The main critique of these economic approaches in the social sciences centres on the use of four key assumptions: economically rational profit maximising individuals, perfect information, homogeneous commodities and no barriers to entry. The latter two assumptions may occur in certain markets although I show in later chapters that their application to the rural agricultural markets of Ghana is highly questionable. The first two assumptions raise more fundamental problems and are discussed next.

The assumption of rationality

Neo-classical economics assumes that all individuals are economically rational and will always attempt to maximise profit or utility. Sociologists and anthropologists who favour rational choice theory approaches make a similar assumption in their analysis of economic functions. It should be stated that proponents of these approaches admit that individuals might be changed by circumstances, but assume that individuals and their preferences are taken as given for the purposes of economic enquiry (Hodgson, 1994b: 398). However, critiques of this assumption from evolutionary / institutional economics, and other social sciences, have stressed that economic behaviour is embedded in structures of social relations (Granovetter, 1985). Mayhew (1994: 118) argues that choice is shaped by culture and that it is wrong to assume that culture becomes a product of individual choice.

The assumption of perfect information

The neo-classical approach assumes that all actors have access to information and knowledge on which to make their decisions. However, this is rarely the case in real life situations where actors are constrained by lack of information regarding goods which are not homogeneous, details of the transaction (such as price and conditions/time frame of payment). They may also lack information on the trustworthiness of other parties during exchange (Plattner, 1989c: 211-216). Therefore such analysis fails to examine the costs of not having information that might come in the form of risk aversion strategies or costly measures to obtain information. Williamson (1985) refers to these costs as transaction costs and notes that these will rise if communication is poor and contracts are not enforceable. The assumption that there is perfect information implies that it is not possible to cheat, as all actors have access to all information.

2.3 New Institutional Economics

New Institutional Economics (NIE) has developed as neo-classical economists have attempted to modify their key assumptions to reflect real world situations more closely. NIE introduces the concept of transaction costs which are omitted from many analyses because of the assumption about a “frictionless exchange process in which property rights are perfectly and costlessly specified and information is likewise costless to acquire” (North, 1990:11). North proposes that the key cost of transacting is that of information. The cost comes from measuring the quality of what is being exchanged as goods may not be homogeneous; protecting rights to the goods being exchanged; and policing and enforcing agreements. These costs may increase over longer distances and if contacts are more impersonal (North, 1990; Poulton et al, 1996).

There are varying definitions of an ‘institution’ and North (1990: 4) gives the most inclusive one as “any form of constraint that human beings devise to shape human interaction they consist of formal written rules as well as typically unwritten codes of conduct that underlie and supplement formal rules”. He continues by arguing that “an essential part of the functioning of institutions is the costliness of ascertaining violations and the severity of punishment”. North maintains that institutions affect the performance of the economy by their effect on the costs of production and exchange, and thereby the transaction cost: “the major role of institutions in a society is to reduce the uncertainty by establishing a stable (but not necessarily efficient) structure to human interaction” (ibid: 6). It should be noted that North differentiates between ‘players in the game’ - such as organisations - and institutions that he refers to as ‘rules of the game’.

Williamson (1985) concentrates his analysis on contractual relationships and the attempts to reduce transaction costs caused by imperfect information and the need to adjust contracts. The importance of different costs associated with a transaction are dependent upon the risk and uncertainty surrounding the transaction, the frequency of transaction (it is easier to bear the costs of arbitration of disputes if transactions are large and infrequent) and the investment in specific assets which cannot be used for

other purposes (Poulton et al, 1996:12). The costs of risk and uncertainty of the transaction can include the costs of restricting opportunism, such as the 'bonding costs of effecting secure commitments'. A study of transaction cost economics therefore shows that a contractual arrangement can still be 'efficient' when prices in a bilateral contract are higher than those justified by production costs alone, as it provides the incentives to invest that would not exist in the world of perfect competition (ibid: 13). Williamson (1985:41) therefore proposes that studies of contractual arrangements should not look at marginal analysis but rather should compare institutional alternatives.

The NIE approach is based on the neo-classical concept of methodological individualism which explains social phenomena in terms of the characteristics and actions of individuals. This has been criticised by what has been termed the 'Old Institutional Economics' school (Hodgson, 1994b; 1994c; Samuels, 1995). Samuels (1995: 572) contrasts the concept of methodological individualism with an approach that sees individuals and culture as mutually dependent. Mayhew (1994:118) states that "there is considerable evidence that human thought and behaviour are not well represented by maximisation models and the conception of action as rational".

The political aspects of markets are also important, and White (1993:1) states that the idealised notion of 'markets' "abstracts from social, cultural, political and institutional dimensions of real markets which cannot be sidelined as extraneous impurities, but function as inherent, and in many cases essential, features of markets in the kaleidoscopic diversity of economic life". He goes on to stress the importance of looking at markets as embedded in social processes such as gender and class. To that I would also add the issue of ethnicity. It is also necessary to examine which social groups set the rules and how, and to avoid the functionalist approaches that suggest civil society's goals evolve towards the 'greater good' of the society. This issue is developed in chapter 8.

2.4 Structuralist approaches

Structuralist paradigms came to prominence in geography and development studies in the 1970s with a rejection of methodologies based on neo-classical economic theories, quantification, and regional studies. Much of the influence came from Marxism. In relation to research on markets and rural development, the range of structuralist approaches concentrated on the impacts of social power and wealth on inequality and control over the means of production. Research emphasised the historical aspects of social relations, the role of structures along class lines (Plattner, 1989b: 16) and stressed the importance of the expansionary tendency of global capitalism.

In the 1980s, development studies, dominated by Marxist paradigms were said to be at an 'impasse' (Booth, 1985) with discussion forced into restricted channels:

"The major influences that had been influential in recent development sociology were grand simplifications that were either simply wrong (untenable empirically, conceptually unstable or redundant) or were pitched at a level of generality that made them irrelevant to the most important practical issues facing developing countries" (Booth, 1994:5).

Edwards (1989), in his paper on the 'irrelevance of development studies', criticised the approach for being "for the satisfaction of the researcher rather than the researched" (1989: 119).

There were also criticisms that much of development thought and practice used generalised and highly economistic explanatory frameworks and "seemed to neglect or even deny much of what is specifically human about human societies: action and interaction, history, culture and the 'social construction of reality'" (Booth, 1994:5). Long and Van der Ploeg (1989; 1994) criticise the structuralist and neo-structuralist paradigms that focus on regimes of regulation and accumulation for their over concern with central tendencies. Structural and Marxist approaches have also been criticised for their lack of attention to complexity and the realities of local situations, and the reliance for explanation on social structural factors (Long, 1992a; Edwards, 1989; Booth, 1994). Historical materialism is rejected as they "search for a structural

explanation situated in the past. History never relates in a unilinear or uniform way to the present or future” (Long and Van der Ploeg, 1994:80).

There has also been criticism from the populist school as set out by Chambers (1983) and Richards (1985). They stress the self reliance of rural societies that is ignored in both the neo-classical economics tradition and in Marxist approaches to development. However many populist studies tend to ignore the political economic context of such societies with an often idealised conception of virtuous communities as homogeneous societies without competing powerful interests (Scoones and Thompson, 1994; Peet and Watts, 1993).

2.5 Towards a framework for understanding social relations in the market system

Neither neo-classical economics nor more structuralist approaches allow for a rich description and explanation of social and economic activity. The need to tackle the issue of heterogeneity and diversity on the one hand, and the explanation of structures on the other, has led to a range of approaches that explore structural diversity as well as the diversity of actors’ actions. These approaches examine the different institutional arrangements across regions and countries which may be explained by reference to, and comparison with other structural differences (Marsden and Arce, 1996; Jarosz, 1996; Buttel and McMichael, 1994). *These are similar to the methodologies of ‘structuration’ (Giddens, 1984) and actor oriented approaches (Long and Long, 1992).* Giddens’ concept of structuration acknowledges that individuals are knowledgeable and capable while recognising the structural constraints on individual action. The actor oriented perspective is similar in that it stresses that social relations of production are constructed and changed by micro level action that is embedded in the social and cultural context (Long and Van der Ploeg, 1994). These micro-processes also explain structures. Such approaches require that the researcher take an inductive approach, and this will be discussed below and in the next chapter.

Actor oriented approaches have evolved from anthropological research that developed in the 1960s and 1970s. Within economic anthropology there has been a long running debate between substantivists, who stress the issue of cultural relativity, and the formalists who analyse choice as the product of rational decisions. Criticism of these approaches was based on the fact that some formalist anthropologists had taken a 'voluntaristic' approach that "gave insufficient attention to how individual choices were shaped by larger frames of meaning and action" (Long, 1992b: 21). Formalists were also criticised for being ethnocentric and reductionist by offering a "model of social behaviour based upon the individualism of 'utilitarian man' which rides roughshod over the specificities of culture and context" (Long, 1992b: 22). A similar debate occurred in sociology with critiques of both the over and under-socialised concepts of economic behaviour (Granovetter, 1985).

On the other hand, critics of the actor oriented approach point out that these studies tend to be at the micro level with a poor awareness of wider implications at the regional and national level. The research is therefore seen as an end in itself, rather than having some use and implication for policy and practice (Booth, 1994: 306). Actor oriented approaches tend to reject the analytical categories such as agrarian capitalism or rural proletariat in favour of "actors' self description" in an attempt to reach a level of cultural relativism. However, there may be certain aspects of differentiation that can reflect the main tendencies of our time such as inequality and the relations of power that exist within national and international orders of the world (Booth, 1994: 304). Gardner and Lewis (1996:25) point out the need for "post modern 'stopping points' rather than endless cultural relativism ... one such point is gender ... another is the politics of poverty".

A further problem of the actor oriented perspective, as set out by Long (1992b), is that the inductive method does not give adequate attention to the role of the researcher in shaping the research encounter and the influence of their existing theoretical backgrounds on the building of theory (Drinkwater, 1992: 367).

2.6 New economic sociology and socio-economics

The application of the actor oriented approach to economic action enhances the understanding of how individuals operate within markets while at the same time having their action embedded in social structure. Granovetter (1985) shows that a sophisticated account of economic action must consider the embeddedness of such structures and he criticises the New Institutional Economics approach for attempting to understand societies, now and in the past, as “resulting from the pursuit of self-interest by rational, more or less atomized individuals” (ibid: 482). He also warns of the dangers of taking an over-socialised view as put forward by many of the substantivists in economic anthropology (and structuralists) (Granovetter (1985).

The social structures that shape the actions of agents include power relations, institutional frameworks, habits and cultural patterns. These, in turn, shape and are shaped by cultural aspects such as norms, and networks of actors. History also plays a role in shaping power relations and institutional frameworks in any particular time or place. Much of the writing on New Institutional Economics has assumed that institutions develop through the minimising of transaction costs by profit maximising individuals. However, an analysis of transaction costs can be insufficient to explain certain social phenomena especially when history and power relations are not considered. In this respect the ‘Old Institutional Economics’ attempts to move away from methodological individualism, where the individual is taken as given (Hodgson, 1998: 177), and look at institutions as formed and sustained by habits as well. Habits are defined here as “a form of self-sustaining, non reflective behaviour that arises in repetitive situations” (Hodgson, 1998: 178).

The theory of embeddedness of markets has been an issue at the centre of what has been termed New Economic Sociology. New Economic Sociology accepts that the social cannot be deduced from the economic, and that each transaction is embedded in social relations. Moore (1997) reviews much of the literature relevant to less developed countries and asks why this approach has not been taken in the past. He suggests that researchers were too influenced by the ‘modernisation’ paradigm that assumed that personalisation of economic relations declined with ‘development’ and

that business and society were separate spheres (Moore, 1997: 313). He shows that much business is based on social interaction and creates social relations where they did not exist before. These alternative approaches to understanding institutions and economic change also stress the role of social relations and civil society that mediate the space between state and market (Woolcock, 1998: 153), and lead to what Amin (1996:309) refers to as a 'third way' between state and market centred approaches.

Social relations are defined in this research as connections, affiliations or bonds between people or groups of people. Class is often seen as the most important aspect in shaping social relations although others stress ethnic, religious or community groupings. These can be seen on a variety of scales. This research concentrates on the micro level relations and especially those shaped by trust and power. Individuals can build these relations up through their own actions, although their actions are already shaped by existing social relations.

These relations and links are referred to by some as 'social capital'. This has been defined by Robert Putnam in his analysis of governance and economic development in Italy as "features of social organisation, such as networks, norms and trust, that facilitate coordination and cooperation for mutual benefit" (Putnam, 1993: 167). The balance of attention given to each of these concepts varies according to the researcher's viewpoint. Social capital can be seen at different scales, from the micro-institutional level to more macro scales of analysis that examine its role in the formation of state-civil society relations and economic development in certain regions². This study will examine the nature of social capital at the micro-scale. Woolcock (1998:156) identifies a weakness in the theorising of the concept of social capital, namely that some see it as a combination of ties and norms while others see it

² Much of the interest in this area has been fuelled by Robert Putnam's (1993) book 'Making Democracy Work'. Critiques of Putnam point out that the reasons for differences between north and south Italy can also be ascribed to different explanations based on social relations and the semi colonial status of the south of Italy or the role of the state in the development of civil society (Tarrow, 1996: 394; Harriss and de Renzio, 1997). In such cases the reasons are political as much as cultural. Harriss and de Renzio quote Portes and Landolt (1996) who give the example of ghetto areas in the USA where there is much social capital but no assets attainable through it to allow participants to rise above their poverty.

as a 'moral resource' such as 'trust'. He asks whether "social capital is the infrastructure or the content of social relations, the 'medium' ...or the 'message.' Is it both?". Attempts have not been made to quantify social capital and its impact, as the objective of the research is to get a clearer understanding of the processes involved and to develop appropriate research methodologies³.

2.6.1 Networks

Networks are the most visible and clearly definable outcome of social relations and part of social capital. For this reason they have received much attention in studies of social capital and in theories of sociology. Social network theory has been a major part of the discipline of sociology since the 1950s. Much of this work has ignored the qualitative nature of the links, although Granovetter (1973) discussed the nature of links with his discussion of the difference between strong and weak ties. Putnam's thesis rests on the role taken up by *the networks that lead to what he terms 'civic engagement'* (Putnam, 1993). Many analyses, especially those that attempt to quantify social capital, concentrate on networks with an assumption that the quality and quantity of associational life can be used as a proxy for social capital (Narayan and Pritchett, 1997: 2). However, the links between networks and norms or trust are rarely made clear.

Attempts to look at different forms of social capital have tended to concentrate on the different scales of networks (Harriss and de Renzio, 1997). Woolcock (1998: 162-178) distinguishes between the macro level (formal business, political and social organisation of society) and the micro level (intra- and inter-community ties). He also distinguishes between those links that are highly embedded in a community, and those that are autonomous.

³ For studies on the measurement of the effect of social capital see Narayan and Pritchett (1997) and Putnam (1993)

While it is accepted that networks are important for the creation of social capital, there is a danger of taking a romanticised view of networks, or ‘the community’. Amin (1996: 327) warns of the danger of ignoring the fact that civil society is an arena for social contestation. Power struggles exist and affect which groups control which resources and what they do with them. This raises the issue of who is included and excluded in certain groups or networks. Levi (1996: 51) notes that neighbourhoods are a source of trust and distrust as they “promote trust of those you know and distrust of those you do not, those not in the neighbourhood or outside the networks.” Woolcock (1998:158-171) also warns of the limitations of certain networks such as those based on close ties. This he sees as “being characterised by an ‘excess of community’ built on such fierce loyalties and familial attachments that members are discouraged from advancing economically, moving geographically, and engaging in amicable dispute resolution with outsiders” (Ibid: 171). Members of such communities may therefore be restricted in participating in wider networks because of obligations. There is a need for inter as well as intra-community ties, what Granovetter and Putnam term weak ties of horizontal networks.

2.6.2 Norms

Discussions on the nature and formation of norms of generalised morality are restricted as they are intangible and difficult to observe. Norms define what actions are deemed to be right or wrong, and include customs of cooperation, reciprocity and interaction with strangers. Furthermore, norms cannot be produced at will and their creation or shaping depends on the cultural background to the relationship, including market exchange contexts. Platteau (1994b: 795) states that

“to function effectively, at least in a long term perspective, the market requires the society to be structured in a way that ensures a wide-spread prevalence of abstract impersonal relationships among agents as well as the pervasive influence of norms of generalised morality”.

Portes and Sensenbrenner (1993) also recognise the importance of what they term ‘value introjection’ as a source of social capital, as it “prompts individuals to behave in ways other than naked greed; such behaviour then becomes appropriable by others

or by the collectivity as a resource” (ibid: 1323-4). This becomes beneficial for economic development as risks are reduced and this in turn reduces enforcement costs.

I make the distinction between ‘norms of generalised morality’ and ‘trust’, although some use the term ‘trust’ to refer to both. Putnam states that “trust itself is an emergent property of the social system, as much as a personal attribute. Individuals are able to be trusting (and not merely gullible) because of the social norms and networks within which their actions are embedded” (Putnam, 1993: 177). However, Levi (1996: 46-7) criticises Putnam for his loose definitions of the concept of trust as he uses the term to refer to *both* expectations due to knowledge, institutional arrangements and incentive systems that enable an individual to predict behaviour, *and* to refer to general morality in the community itself. Humphrey and Schmitz (1996:10-12) make the distinction between generalised and selective trust, where generalised trust includes both generalised morality and institutional-based forms of trust (Zucker, 1986). Coleman distinguishes between forms of social capital that are for all members of a group, created and destroyed as a by-product of other activities, and other forms of social capital that are created by agents for their own benefit (Coleman, 1990:317).

One of the basic norms on which personalised trust is built is that of generalised reciprocity and the custom of co-operation. This can be seen as part of social structure or a habit that allows the agents to assume away a certain amount of risk (Hodgson, 1988: 167). Levi (1996: 47) explains trust in strangers as coming from cognitive mechanisms where the agents follow a rule without having to calculate each time. This is similar to the concept of habit in institutional economics as defined by Hodgson (1998: 178) and discussed in section 2.6. Norms are derived from cultural patterns and habits in society as well as being reinforced by the use of trust. Norms shape the actions of agents as reciprocity is the basis of personalised relations based on trust. Some norms are more consciously applied. In such cases, norms of generalised morality are based on the need for a social consensus that can enforce sanctions on norm violators and thereby allow agents to trust each other.

2.6.3 The dimensions of trust

As mentioned earlier, trust is an integral part of what is termed social capital. The concept of trust has been studied in several of the social sciences in differing contexts leading to a mixture of approaches and perspectives (Misztal, 1996: 13). A dictionary definition of trust is “a firm belief in the reliability, truth or strength of a person; a confident expectation; and a reliance on the truth of a statement without examination” (Oxford English Dictionary, 1995). Shared expectation of good or likely behaviour is the central issue in trust (Gambetta, 1988: 217; Humphrey and Schmitz, 1996: 5; Zucker, 1986: 54; Fukuyama, 1995). Trust operates when there is confidence in other agents, despite uncertainty, risk and the possibility for them to act opportunistically (Misztal, 1996: 18; Gambetta, 1988: 218). The concept of trust has been ignored in much economic research as, under the assumptions of conditions of perfect competition, the issue of trust does not arise since links between agents are not seen to be affected by interpersonal behavioural traits and they do not have the opportunity for dishonest behaviour (Furlong, 1996:3; Platteau, 1994a: 541). In the Twi or Brong language, used by most of the farmers, traders and input sellers in the study area, the English word ‘trust’ can be translated as *gyedi*. However, this can also mean confidence, knowledge of a person’s ability, belief and faith, and so the subtle differences between these terms in English cannot easily be explored in Twi.

Trust can come from both generalised norms of morality and more personalised sources embedded in social networks. Agents do not always aim to maximise the profit, but may consider the minimising of risks and maximising access through developing personal relationships with other agents. This is especially important in a situation characterised by imperfect information and a lack of effective legal mechanisms (Davis, 1972:211). It is central to any market transaction when agents are not willing to rely on norms or institutional arrangements alone (Granovetter, 1985:490) or where the risk of other agents being opportunistic cannot be controlled by legal means without prohibitively high transaction costs in terms of monitoring contracts (Platteau, 1994b:756). Moore (1994: 819) states that “many transactions are so complex that law cannot possibly cover all contingent circumstances”, and in

many countries there is no formal system of contracts anyway. Trust plays a major role in reducing such transaction costs, especially when there is complex long distance trade, through reducing the need for monitoring and information.

The close relationship between agents at different levels of marketing chains allows them to have the benefits of vertical integration without the rigidities of hierarchical structures (Clark, 1994:230; Braadbaart, 1994: 148). Personalised trading relationships have been identified in a number of studies and should be differentiated from close kinship links. Davis (1973) documents the *suki* relationships in the Philippines, Mintz (1964) refers to the *pratik* relationships in Haiti, Finan (1988) describes the *fregues* strategies in Northeast Brazil, Trager (1981b) documents the *onibara* relationships in Nigeria and Clark (1994) describes the “customer” relationships in Ghana. Trager (1981b) and Alexander and Alexander (1991:465-6) report on the wide variation in the content of trading relationships and claim that previous research such as that of Mintz (1964) and Davis (1973) ignores this.

The employment of trust depends on the probability that other agents will behave in a way that is expected (Gambetta, 1988:217). An action based on trust can therefore be described as a calculation (Williamson, 1993). There is debate over the extent to which agents act under ‘rational’ choice or calculation, and the extent to which their actions are embedded structures of social relations (Granovetter, 1985). Luhmann (1979) sees trust as a way of reducing the complexity that comes from the freedom of others and trust can make the calculation easier or not even necessary. Decisions on whether to trust are not only based on calculations that consider information on other agents and enforceable sanctions. There is a non-calculative side as well, in that habits allow agents to assume away some of the risks. By reducing the number of variables, calculation is possible (Hodgson, 1988: 167)

Zucker (1986: 60-65) has set out three “central modes of trust production” that are based around selective trust. These are:

1. *Process-based*, where trust is tied to past or expected exchange such as in reputation and gift exchange;

2. *Characteristic-based*, where trust is tied to a person, depending on characteristics such as family background or ethnicity;

3. *Institutionally-based*, where trust is tied to broad societal institutions. This can be subdivided into person or firm-specific attributes such as membership of associations, and, secondly, into intermediary mechanisms such as bureaucracy, banks and other formal mechanisms that can be seen to protect the interests of all parties to the exchange. Zucker also notes that there is not an “evolutionary progression” from process-based to characteristic-based, to institutional-based trust, as all are present in all societies. Ethnographic studies have identified factors that shape the production of trust, but none have explored the issue in detail.

2.6.4 Power relations

Cooperation can come about through both trust and coercion. Power relations are a central feature in the formation of contracts, so the challenge for research is to look at the power relations within cooperation and determine how trust production is affected by unequal access to resources. Burchell and Wilkinson (1996: 6) found that in their study:

“trading partners derive mutual benefits from cooperation in production from which their incomes are ultimately derived, but they compete over the proceeds of production because what one gets the others cannot have. Each business relationship is therefore by its nature both rivalrous and cooperative”.

Power relations have wide implications as they shape the outcomes of all trade. Differences in bargaining power result in differing prices and returns, and therefore have a large impact on income generation. They shape the social relations in which economic action is embedded, which in turn shape the access to certain key resources and the bargaining power of agents.

Harriss (1993) has analysed the power relations in markets in West Bengal. These include control over land and storage, generation and control of information, power

through finance and credit, and political power. The control of capital can lead to an increase in bargaining power and even exploitation of one party by another. This can come from the interlocking of traders and producers with credit given in the pre-harvest period and from the distress sales of farmers. Other sources of bargaining power are the control of transport (Davis, 1973:202; Guyer, 1987:46; Saul, 1987:79), knowledge of marketing procedures (Clark, 1994) and the organisation of the market. Bargaining power through organisation of the market is often exerted through market associations which may act to exclude others, exert control over the members and non-members (Harriss-White, 1993) and minimise the transaction costs for members (Smith and Luttrell, 1994).

Despite the considerable discussion of the term 'power' in the social sciences, the ability to use it as analytical category is highly problematic because of the varied definitions and interpretations. Complications in the use of the term power arise because of the differences between 'power *from*', 'power *to*', 'power *with*', and 'power *over*' (Rowlands, 1997). In this study, I am most interested in understanding how actors are able to affect others or secure outcomes *over* others. In this way they have power *over* others, and power is seen as part of a zero-sum game where one side gains at the others' expense (Allen, 1997). The power *over* is based on three other forms of power: social structures or power *from* position and control of resources; agency or power *to* affect outcomes; and collective power or power *with* others.

Much attention has been paid to the structural bases of power, most notably those related to the issues of class and control of capital over the means of production, gender, ethnicity and age. This base of power is seen as something that is an inscribed capacity, or a position that is held or possessed. It should also be recognised that individuals, whatever their position can affect the outcome by creating some room for manoeuvring. The exception to this is some forms of slavery.

Exercise of power can be through individual and collective action and is produced or generated through mobilising resources rather than being inscribed (Allen, 1997). I refer to use of power as agency and include gaining power through both 'micro strategies', and resistance. The micro strategies are similar to what Foucault (1977)

referred to as 'disciplinary practices' such as surveillance of others. Surveillance in organisations comes in the form of supervision, establishment of routines and legislation to control members' behaviour (Clegg, 1989: 190). In this way the methods of surveillance are a form of gaining power as well as allowing trust to build up. Surveillance can have an effect through the watched being aware of the gaze or it can be internalised with individuals assuming that they are always being watched (Crang, 1994). Power can also be built up through what Latour (1986) refers to as enrolment. Each actor has their interests and they attempt to get others to follow them and fight for the same outcome. In this way power can be seen to have a negotiated character of competing definitions and is built up by being reproduced both consciously and unwittingly (Clegg, 1989). Power is also produced through resistance. The simplest form of this is the threat to create delays, work slowly and pilfer and in this way even the weakest parties can build up some power over dominating agents (Scott, 1985). An understanding of agency involves analysis of how the processes work, both consciously and through habits of thought.

The power *over* other agents is *exerted* through tangible threats or action, and/or norms of behaviour. The norms include moral obligations and routine, habitual or unquestioning compliance. These may result in agents accepting power over themselves and also shape the nature of the threats and actions that can be undertaken. The moral obligations are internalised and can be seen as a form of moral economy (Thompson, 1971; Scott, 1976). Those with power are able to set the rules of the moral economy through processes of socialisation and acculturation. Lukes (1974) refers to this as the third dimension of power, where the values of the dominant become internalised. Norms shape the power relations by restricting the scope for complaints, and being able to avoid decisions and leave issues off the agenda (Lukes, 1974). These issues are closely related to the ability of the more powerful to exert authority.

The threats and actions that can be used to exert power over others are more visible and easier to identify through empirical research. I have divided them into three factors - strength, authority and peer pressure - which lead to a range of possible sanctions; violence, exclusion, penalisation, shame and reputation loss. How power is

exerted will be explored in the empirical chapters and discussed in detail in chapter eight.

2.7 Conclusion

This chapter has outlined the major lines of academic debate that have shaped the studies of social relations of marketing in less developed countries. The review of alternative approaches suggests that there is an advantage to be gained from taking an actor oriented approach that examines the coping strategies of agents and the context within which economic action takes place. Research emerging in socio-economics and economic sociology provide some tools which can be used to start understanding market relations. Of particular interest for this study are the concepts of trust in economic behaviour and the networks that support this. The analysis of power relations in the market system is also important as it allows a deeper awareness of how market agents can shape their outcomes.

The following chapters will build on this theoretical framework. The next chapter sets out the methodology that has been used to investigate the research questions. It also provides a methodological approach to understanding the embeddedness of economic action in general. Chapter four will give a background to the case study: it explores the historical and cultural underpinnings of markets in Ghana and introduces the study area itself. The theoretical framework outlined in this chapter will be developed in the following chapters by presenting the empirical work and relating it to a wider literature on social relations within the production and marketing process. Chapter eight draws together the various implications and proposes a framework for understanding social relations in markets.

Chapter 3. Research Methodology

3.1 Introduction

Chapters one and two set out the research questions and the theoretical approach to be taken. To reiterate, the central questions tackled by this thesis were stated in section 1.3 as: *what are the interactions of farmers and traders that allow them access to resources for production and marketing and what is the nature of these links?* In order to investigate this, a theoretical approach was outlined that allows for an understanding of the embeddedness of economic action in relations of trust and power.

The methodological challenge for the thesis was to find a means by which the theoretical issues could be illuminated ‘on the ground’. In view of the complexity of the task, a multiple method approach was embraced that uses both qualitative and quantitative approaches, individual and group meetings, and a range of methods including interviews, focus groups, and other participatory methods. This allowed for cross checking, increased reliability and greater depth and richness of explanation.

The research took place over 22 months, the first 18 months of which was during an attachment to the Integrated Food Crop Systems Project in Brong Ahafo, managed by the Natural Resources Institute in UK and funded by the Overseas Development Administration (now the Department for International Development)¹. During this period I was working with Ghanaian counterparts from the Ministry of Food and Agriculture, Ghanaian universities and research institutes. Being attached to the Ministry of Food and Agriculture had its advantages in that I had contacts in a wide range of rural places, but also had its disadvantages as it may have affected how I was perceived. In cases where links to the Ministry would have been damaging, I distanced myself from them and stressed links to the universities.

¹ The methods used were also influenced by the context within which the research took place. Initial studies were part of a research project and data collection relevant to this thesis linked to other research activities. These activities included providing the

Following a brief survey using Rapid Rural Appraisal techniques in five settlements, data was collected over 18 months in Brong Ahafo. I started the research by staying in two villages (Susuanso and Dwomo) in the first few months and then made regular visits to them during the rest of the fieldwork (see map 3.1 and 3.2). Eight other villages (Abesim, Techimentia, Derma, Tuobodum, Manso, Offuman, Awisa and Nchiraa) were also visited regularly, while the research on urban markets concentrated on intensive studies in Kumasi Central Market and Sunyani market. The second phase of the research was dedicated to the intensive collection of material for the thesis. During this period, I lived in four settlements in Brong Ahafo (Derma, Tanoso, Kokoago and Akete) and supervised surveys in Tano Boase, Pamdu and Techimentia. Subsequent repeat visits have been made to the producing areas and urban markets while on visits to Ghana for other consultancy research work. In this phase of the research, I was linked to the University of Ghana, Legon.

3.2 The Research Strategy

The research questions have been set out in the introductory chapter and theoretical approaches needed to explore the institutional context of the farmer-trader and trader - trader relationships were presented in chapter two. The theoretical framework draws on actor oriented approaches (Long, 1992b) that allow for a rich description of diversity of actions that are situated within social structures. Such an approach requires an inductive approach that is based on qualitative data and local conceptions or interpretations of economic behaviour.

Pelto and Pelto (1978) refer to the 'inductive' approach as a process that:

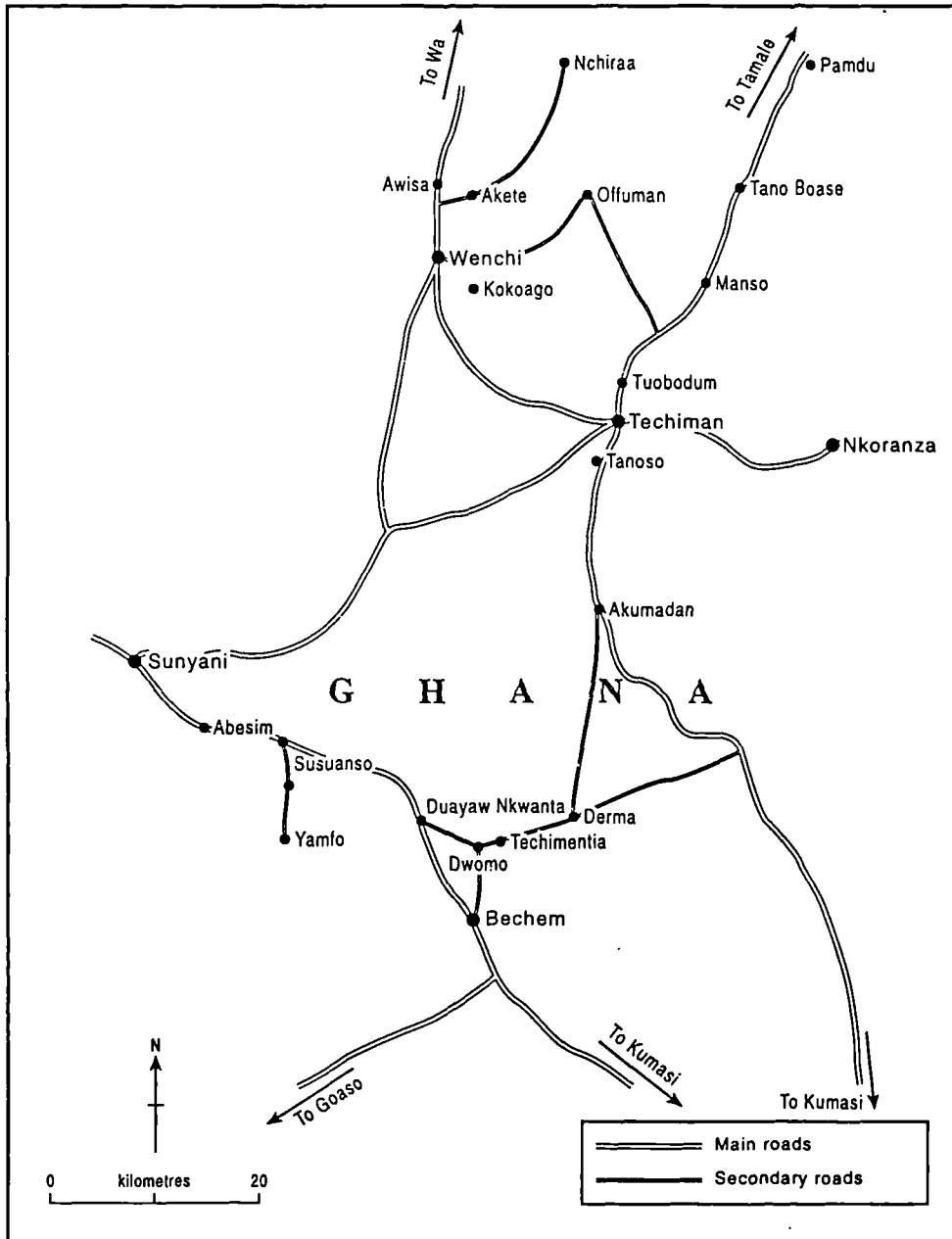
"begins with the empirical observations, developing and testing concrete hypotheses about them, and then linking those supportable hypotheses with similar constructions or propositions in higher order, more abstracted systems"
(Pelto and Pelto, 1978: 253-4).

socio-economic input into a farmer participatory research programme with a plant breeding project, and with an agro-processing technology development programme.

Map 3.1 Ghana and its regions



Map 3.2 The study area



Glaser and Strauss (1967) introduced the term 'grounded theory' as an approach to inductive research where theory is developed from close observation of the empirical world. In my research I am interested in exploring local interpretations of capitalism and development that may challenge eurocentric models of economic behaviour. It was therefore necessary to set research questions that did not exclude novel interpretations. Strauss and Corbin write about the need for:

“a research question or questions that will give us the flexibility and freedom to explore a phenomenon in depth. Also underlying this approach to qualitative research is the assumption that all of the concepts pertaining to a given phenomenon have not yet been identified, at least not in this population or place....This reasoning creates the need for asking the type of question that will enable us to find answers to issues that seem important but remain unanswered.” (Strauss and Corbin, 1990: 37).

The aim of the research was to explore local conceptions of economic behaviour and strategies, as perceived by the various actors. The approach taken attempted to ensure that the hypotheses, frameworks and theories that were developed, were based on the farmers' concepts, rather than specified by outsiders. This allowed me to challenge analytical categories and theoretical positions by the “elucidation of actors' interpretations and strategies” and the “understanding of everyday life situations” (Long, 1992a: 5-6).

Pelto and Pelto (1978) make the distinction between 'emic' and 'etic' approaches. The emic approach which is taken in this study, is seen as being based on 'their' concepts and categories of meanings, with local definitions discovered through inductive research. The etic analytical stand point takes a more externalist viewpoint whereby the researcher “stands 'far enough away' to see it as a separate event, primarily in relation to their similarities and their differences, as compared to other cultures, rather than in reference to the sequences of classes of events within that one particular culture” (Pike, 1954; 10, quoted in Pelto and Pelto, 1978).

The ethnographic approach of this research relied on the collection of qualitative data, although there was opportunity to collect quantitative data towards the end of the field work when the key questions had been identified. Much of the research on marketing has taken a quantitative approach by looking at the 'structure, conduct and performance' through prices (Scarborough and Kydd, 1992), despite the low quality of data available. In this study, as in Hollier (1985: 400) the price data used was collected through micro scale studies of daily prices wherever possible. However, a reliance on quantitative data would have restricted my explanations of the marketing relationships that this thesis sets out to explore. Quantitative approaches, used to examine issues of networks and social capital, rely on finding proxy indicators which are measurable and quantifiable. This hides the nature of the social relations and their methodological assumptions have wide-reaching policy implications as they perpetuate the belief that the measurable aspects of trust and social capital are more important than the qualitative aspects (Lyon, in press).

The exploratory and inductive approach to relationships, attitudes and beliefs also necessitated a case study approach (Casey and Lury, 1987). The ability to draw wider conclusions can be restricted by the use of a narrow subject, such as a single crop, as a case study. However, attempts to have a broader subject would have meant sacrificing the detailed study that is needed to explore the complexities of economic action embedded in social relations. McDowell (1992) makes the distinction between intensive and extensive research, with intensive methods involving in-depth investigations being:

“essential to reveal the underlying causal mechanisms and structures that lie behind observed behaviour. Whereas extensive research - of the type commonly based on the identification of descriptive patterns through large scale data analysis - has its place in the initial identification of empirical regularities, it rarely meets the criteria of real explanatory power.” (McDowell, 1992: 213).

The selection of the tomato production and marketing system for central and southern Ghana as a case was determined by the direction of the wider research project within which I worked. This case gave me the opportunity to explore local, regional and national scales of the Ghanaian food system. The localised studies of villages and

markets, combined with explorations of the interactions of traders and farmers, were used to understand regional processes.

The desire to explore local conceptions and to understand social processes from the respondents point of view was facilitated by the use of participatory methodologies. In recent years there have been a range of alternative research methods that have gained popularity and acceptance. In the areas of rural development, the use of rapid rural appraisal (RRA) and participatory rural appraisal (PRA) have become increasingly popularised (Binns et al, 1997; Chambers, 1992; Chambers, 1997; Kapila and Lyon, 1994; see also RRA/PLA Notes 1988-1998) and are now being used for market studies (Kar and Datta, 1998). These approaches are based on informal research approaches that have developed in response to the limitations of conventional questionnaire surveys that failed to pay attention to the concepts and knowledge of those participating in the research.

The type of participation varies in each case although much of the writing on the subject has stressed the importance of rapid rural appraisal over participatory rural appraisal as the latter is seen as being 'extractive' (Chambers 1993). However, this ignores the uses of RRA for academic research that may not have long-term participation as an objective of the research in itself, but rather wishes to use the methods to complement conventional research approaches (Schreckenber, 1995: 77). Participatory approaches that stress the role of group research activities and visualisation are limited as they under-play difference, allow certain group members to dominate and may lose detail since it is not be possible to represent some knowledge pictorially (Twyman, 1998; Mosse, 1994).

3.3 The dynamics of the research process and role of the researcher

An inductive approach cannot rely on claims of objectivity, and it should be explicitly accepted that the role of the researcher is central to all parts of the research process. It is therefore necessary to question how knowledge is produced, both at the stage of

data collection (England, 1994) and in the analysis and writing (Clifford and Marcus, 1986).

England (1994) calls for a geography that accepts its inter-subjectivity and the need for reflexivity:

“Reflexivity is critical to the conduct of fieldwork; it induces self-discovery and can lead to insights and new hypotheses about the research questions. A more reflexive and flexible approach to fieldwork allows the researcher to be more open to any challenges to their theoretical position that fieldwork almost inevitably raises” (England, 1994: 82).

Much social science research has taken a detached scientific approach and claims a degree of objectivity in order to legitimise the research to the ‘scientific community’. However, this ignores the role that the researcher plays in the outcome of the research and the data collected. Giddens (1984) refers to the concept of ‘double hermeneutics’ where the actors interpret the social world around them and this can include the researcher and the research process. Drinkwater (1992) criticises those researchers who study human agency but do not apply the concept reflexively to the researcher;

“If one lauds the ability of the participant to make a difference to his or her own world, then it is inconsistent not to acknowledge the equally active nature of the researcher in shaping the field work encounter and hence the role the researcher plays in the selection and interpretation of field material” (Drinkwater, 1992: 367).

‘Grounded theory’ also fails to acknowledge adequately the role of researcher as the data collection is considered to be value free and the analysis that emerges from the empirical data is objective. Strauss and Corbin (1990) claim that:

“The illustrative material [quotations from interview notes] are meant to give a sense of what the real world is really like; while the researcher’s interpretation are meant to represent more detached conceptualisation of that reality” (Strauss and Corbin, 1990: 22).

When doing social research it is necessary to examine whose knowledge perception and priorities are made known and taken seriously (Scoones and Thompson, 1992), what data is taken down in notes, what comments are included in the text (Seur, 1992:142; England, 1994: 86) and what data is trivialised as it does not fit into the theoretical framework (de Vries, 1992). Every researcher is affected by their prior assumptions and “cannot escape their cultural backgrounds and conceptual frameworks” (Seur, 1992). Habermas writes that this must be recognised and analysed:

“ The social scientist has to draw on a competence and knowledge that he has intuitively at his disposal as a layman. So long, however, as he does not identify and thoroughly analyse this pre-theoretical knowledge, he cannot control the extent to which, and the consequences with which, he also influences as a participant - and thereby alters - the process of communication into which he has entered only to understand” (Habermas, 1984: 111-112).

Drawing on feminist research methodologies, England (1994: 86) calls for greater recognition of the inherently hierarchical nature of the research relationship and Madge (1993: 295) sees the need for greater consideration of the role of the ‘self’, showing how the researcher’s positionality may influence the ‘data’ collected and thus the information that becomes encoded as ‘knowledge’ ”. Herod (1993) supports this view, citing a range of research reports that show the impact of gender on the data collected and even the ability to get an interview in the first place. Furthermore, positions of the researcher are continually reinterpreted by the researched, especially when working in the ‘third world’. Sidaway (1992:403) discusses how class, cultural, racial and gender contexts are altered and shifted as researchers from the “first world move into the hierarchies of the ‘third world’ ”.

Reflexivity in the research process, attention to the positionality of the researcher and deconstructivist post-modern writings can be taken to extremes where the research becomes centred on the researcher and as Lancaster (1996: 161) states “other cultures and other people” become the “backdrops for authorial self discovery”. While I support the attempts to make the role of the researcher transparent and visible, I reject the view that cultural relativity means the ‘outsider’ has to abandon the concept of

'facts' although there is a need to accept that "all facts are necessarily selected and interpreted from the moment we decide to count one thing and ignore another" (Scheper-Hughes, 1992: 23)². The outsider is always an outsider but this does not invalidate the issues of the research. There is an ethical and moral obligation to present the concerns and strategies, as I have perceived and recorded them, of the farmers and traders who were interviewed and the reader must take my positionality into account when reading my interpretation.

3.4 The research experience

My perceived position was shaped by the initial impression I gave to the farmers and traders, and by whom I was seen to be aligned to. These issues were constantly shifting through the research process. In each interview, I was demanding time and often confidential information. Cooperation from the farmers and traders, and the outcome of the interview, was based on their trust in me, and the power relations between us. The similarity between the research process and the subject of my research was often referred to by the farmers and traders:

"I got 1.5 million Cedis [£375] from a customer trader I work with traders, it depends on trust ... Like I came to you because I have trust in you. This is because I got a message from my mother who knows you" (Kwabena, Derma, Interview 12).

It is very hard to know how anyone perceives an outsider although, in my case, several issues about my identity were referred to at various times; as white and British in an ex-colonial country; as a younger man working at times among groups that are almost all women who are older than me; and as relatively rich, from a country with many job opportunities once I have done my studies. This raises a series of important issues in relation to my research experience.

²Janesick (1994) views credibility coming from asking yourself, what techniques are used to ensure accuracy and validity, what is the experience and qualification of the researcher, and what undergirds the study.

Being an outsider restricted my understanding of the cultural context and the experience of everyday life, although Ghanaian colleagues also saw my extreme difference as a potential benefit in certain circumstances. This was especially apparent with traders as I was perceived not to be a threat to their businesses being male, young and foreign. I was therefore able to tackle issues, such as economic activities, that others found difficult to broach. There were no cases of opposition to my working with women, although my ability to discuss issues to do with women's home life was limited. Gender relations shaped how the research relationship was built up with people who were visited regularly. With men, I could draw on common gendered roles and customs, while with women, I could distance myself from Ghanaian men because of my ethnicity and at the same time joke about my interest as a man coming to see them. The beginning of many interviews consisted of relaxed and informal conversation and joking, often centred around questions of my marital status, whether I was looking for a wife and whether I would take them (or their daughter) back to UK.

My race and ethnicity were constantly referred to and played a major role in how I was perceived. I found that it opened many opportunities but often for reasons that I found difficult to accept. Colonial attitudes and discourse about race continue to be widespread with an uncritical respect for white people. This influence is a form of ascribed power as discussed in the previous chapter, and is substantiated through the discourse about race used in much of Ghana, the exception being largely among those with university education. This discourse became evident in conversations that make the distinction of 'you whites' against 'we black'. The labelling of European people, especially British, as 'our colonial masters' also reflects this discourse, although it was often used in an inverted ironic way by those who had studied the impact of colonialism.

How I was perceived was also influenced by who I was seen to be aligned to and how I explained my roles. I spent some time at the beginning of each interview explaining to the interviewee, and the spectators that often gathered around, that my work was part of a wider research project and I could not bring them anything immediately but the project's aim was to raise their income through identifying bottlenecks in the

marketing chain and looking for solutions. Despite our constant repetition of the reasons for the work, a number of rumours spread around the villages that we were gold miners, debt collectors, health visitors or crop exporters. This became less of a problem when I was carrying out repeated visits and we could check that the interviewees understood the research when they introduced me to other people listening. Research also became easier once I and the research assistants were better known in the village or market. Entry into the villages and markets for the first time had to be done carefully, following the local customs of visiting the chief and his elders (or the market queen) to present schnapps and explain our work. While living in the village we were able to get to know people informally in the evenings and through participating in large social events, such as funerals.

Respondents were never paid although I gave some key informants gifts and photographs. An important part of the process of becoming accepted in Kumasi and Sunyani markets was the traders' involvement in participatory selection exercises for new varieties of tomatoes that were being tested by the Overseas Development Administration project. This raised much interest and changed the way I was perceived. I was also able to show early drafts of work to some literate traders and farmers: this was highly valued by the secretary to the traders' association in Kumasi who refused to return the draft with his comments until I had convinced him he could get it back later. Research that aims to question the existing power relations involves working with all relevant groups. In this way, I had to 'enrol' people into my research project, by trying to change the way in which I was perceived, in order to build up cooperation (Latour, 1986). Some of the people who welcomed and trusted me may feel betrayed by my writing; this raises ethical issues on the deception of people being interviewed.

My position was complicated further by working closely with research assistants and 'interpreters'. On the one hand, these individuals are perceived in their own context and this affects how the researcher is perceived. Therefore the issue of gender, race and class of the research assistant can shape the research outcome. The research assistants were all Ghanaian, although still 'outsiders' but to a different degree (Twyman, 1998). The position and background of the research assistants was given as

much importance, if not more, than my background, with most interviewees asking them where they were from and their ethnic origin. I worked with nine assistants during the research process as I decided to work with people who were already known to the communities or markets in which we were working. Six of them were working with the Ministry of Food and Agriculture and three were attached to universities. Only two of these were women, as it was difficult to find women with good English and the appropriate interviewing style who would live away from the towns. I was able to select assistants and I worked with them for some time to assess their ability to take a participatory listening approach (Chambers, 1997). Some of the Ministry staff were not able to put aside the 'lecturing' role that pervades many of those in official government positions.

The role of research assistants as 'interpreters' is also problematic as the translation of a conversation allows room for reinterpretation and the selection of what facts they think the researcher wants to know. My proficiency in Twi, the language understood by the farmers and traders, was adequate for introductions and small talk before and after the interview that was important for building up a rapport. I was not able to conduct in-depth interviews although I was able to understand much of the questioning and replies to check that questions were understood and details of the replies had not been left out.

3.5 Selection of research sites and respondents

3.5.1 Selecting villages and markets

Several case study villages were selected for data collection. The criteria for selecting these included ecological zone, ethnicity, accessibility and proportion of tomato farmers. Information on the area was gathered through preliminary surveys (Warburton and Lyon, 1995) and from discussions with local officials from the Ministry of Food and Agriculture. It was not possible to conduct a random sample and so I followed Polly Hill (1977) in selecting ones that are "not obviously irregular", although it is recognised that definitions of regularity are subjective. The villages

where the research took place are given in Table 3.1. Other villages were visited as part of other surveys and for short visits. In each village care was given to reaching all parts of the community, as there are usually people living in surrounding hamlets or huts close to their land. Many of these people also have houses or rooms in the main settlements.

Table 3.1 Details of villages covered in the surveys

Village	District	Ecological Zone	Relative size of village	Main Ethnic group	Location and road type	Proportion of farmers growing tomatoes
Dwomo	Tano	Forest/Transition	medium	Brong	40 km SE of Sunyani. Good secondary road	medium
Techimentia	Tano	Forest/Transition	large	Brong	45 km SE of Sunyani. Good secondary road	high
Derma	Tano	Forest/Transition	large	Brong	60 km SE of Sunyani. Poor secondary road	high
Susuanso	Tano	Forest/Transition	medium	Brong	15 km SE of Sunyani. Good secondary road	small
Tanoso	Techiman	Forest/Transition	medium	Brong/Ashanti	15 km S of Techiman Trunk road	medium
Tano Boase	Techiman	Savannah/Transition	medium	Brong/Ashanti	10 km NE. of Techiman Trunk road	high
Manso	Nkoranza/Techiman	Savannah/Transition	medium	Brong	15 km NE of Techiman Trunk road	high
Pamdu	Kintampo	Savannah/Transition	medium	Brong	30 km NE of Techiman Trunk road	high
Akete	Wenchi	Savannah/Transition	small	Kulange speakers	5 km NE of Wenchi. Poor secondary road	medium
Kokoago	Wenchi	Savannah/Transition	small	Brong	8 km SE of Wenchi Widened footpath	small

Note: Relative size: small is <3000 people, medium is 3000-6000, large is >6000

The markets that were studied in detail were selected according to their relative importance as a marketing centre for the producers interviewed in the villages. The markets ranged in size from the small periodic village markets located in the villages selected for the farmer survey, to the larger urban markets.

Table 3.2 Details of markets in the study

Location	Administrative status of settlement	Estimated population of towns	Relay function for tomatoes	Ethnicity of traders	Access for non-local traders	Market infrastructure
Village markets (small daily /weekly)	---	<10000	small	Varied	Varied	Wooden framed shelters roofs of palm frond
Wenchi (small daily /weekly)	District capital	30,000	small	Brong /Northerners	Limited	Traders construct wooden frames with roofing sheets
Techiman (small daily /weekly)	District capital	70,000	large	Brong / Ashanti/ Northerners	Open	Traders construct small shelters with roofing sheets
Sunyani (small daily /weekly)	Regional capital	70,000	small	Brong / Northerners	Limited	Traders construct small shelters with roofing sheets
Kumasi Central and Asafo (Daily)	Regional capital	700,000	large	Ashanti	High	None
Accra 31st Dec. Market, (Daily)	National capital	1,300,000	large	Ga	Limited	Purpose built shelters and paved roads (31st Dec.)

3.5.2 Selection of key informants

Research was carried with key informants who were selected for their particular knowledge or position. The development of trust and rapport was important and was built up through living in the settlements and repeated visits that allowed me to establish relationships. Many of these key informants became friends whom we might visit in the evenings or, for the men, meet for drinks in the local bars. Key informants were also 'gatekeepers' to new sites and areas of research and made introductions, creating a 'snow balling' method of sampling. However, in several circumstances this restricted my access to others as I was aligned to one party. I attempted to ensure that I met a range of key informants that were representative of the differences among the traders and farmers. The decision of 'representativeness' was mine, based on categories emerging from earlier research (Strauss and Corbin, 1990) and experience of living among the people I was selecting. Great care was taken to avoid the different forms of bias (Chambers, 1983:13), especially according to gender, age, ethnicity and wealth. Wealth ranking was carried out in order to establish the categories of wealth as identified by those doing the ranking (Sharrock et al, 1993). This gave me a rough indication of the main indicators of wealth and poverty.

3.5.3 Sampling for the semi structured interviews and questionnaires

There were difficulties in finding or creating a list of names of individuals as a sampling frame. Farmers were selected by stratified sample with the stratifications based on areas of the village and outlying settlements identified on sketch maps. A straight line was taken, making sure to cover all areas especially those of non indigenous groups who reside on the edge of the main settlements in areas referred to as *zongos*. Random numbers were used to select houses located along the line. Interviews were always carried out in the evening and early morning when farmers had not left for their farms or other business. The first person who was seen as we entered the compound or house was interviewed, although in two of the settlements, women appeared to be under-represented by this method so I decided to increase the sample size and repeat the sampling method, but only interviewing women.

In all cases, the individual was taken as the unit of research rather than the household, as there are big differences within households based on gender and age which change over time. Furthermore, the matrilineal household system in the study area is highly flexible and complex, with individuals being members of more than one kin group. There is a diverse range of household types with some people able to eat and reside in more than one house. There is no Twi word for 'household', the closest words being house (*fie*), extended family (*abusua*), or their spouse and children. Each of these forms have important implications for access to resources but are not useful as defining a unit of analysis. Hill (1986: 80) criticises economic analyses for the poor quality of data used and Leach (1994:37-38) states that:

“ ‘The household’ has proved a particularly problematic concept to apply to West Africa, where people commonly belong to numerous nested and/or overlapping economic and social institutions. In as much as households can be locally defined, they are invariably nested within groupings of other kinds”.

This issue of defining households is discussed in more detail in section 4. 6, in the context of understanding gender relations.

3.6 Methods used

3.6.1 Semi structured interviews

The main research tool was the semi structured interview that follows a check list of questions while allowing opportunities for open ended questions and digressions into areas of interest for myself and the interviewee. The checklists were constantly adapted and modified as new areas of research were identified. When working with key informants, repeated or serial interviews (Cook and Crang, 1995) allowed for trust to be built up and issues could be further explored. Some of the most interesting interviews occurred when the respondents were most relaxed. The discussions once I had put my notebook away or while we were trapped in a house by a rainstorm were very important for opening up new areas of enquiry that I had not thought to ask about before.

Interviews with farmers took place in their houses in the mornings before they went to farm or in the evening when they had returned and rested. Farm visits were also made at the beginning of the research to understand the production system. Each interview would last between 20 and 40 minutes and would usually take place on benches outside of houses. At times there were problems with large numbers of spectators which may have affected what people said.

Itinerant trader interviews took place whenever I could meet them. Some were conducted in villages while they were waiting for the farmers to harvest the produce, although most took place in the markets. In Kumasi many of the interviews took place in the Vegetable Sellers' Association hut where the market queen sits and itinerant traders wait for their produce to be sold. These interviews could only be carried out in the late morning and early afternoon when they were less busy. I brought small gifts for the market queens such as biscuits or a souvenir from UK and tried to find a way through the ethical dilemma of paying the traders (Robson, 1994) by avoiding gifts but buying drinks for everyone in the hut, especially when the heat inside became unbearable. The conditions in the market were terrible with oppressive heat, very little shade, refuse and dust blowing around and stagnant water. I began to understand the conditions under which the traders had to work during the periods of observation and interviewing. I was only able to withstand working there for three to four hours at a time before the heat and dust became too much and I had to retreat from the market to recover .

Interviews with the sellers of agricultural inputs took place in their shops and occasionally in their homes in the evenings. The interviews would be carried out between customers and while this often broke the flow of the discussion, sitting in the shop allowed opportunities for observation. The shops are usually corrugated iron roofed huts in the markets, and cooler and more shaded than the food traders selling areas. However, several interviews had to be shortened because of nausea from the pesticides surrounding us. Again this gave an insight into the working conditions; one man kindly advised us to eat lots before coming to the agro-chemical shops because we would not eat later due to the nausea.

Table 3.3 Number of interviews

	SSI 1995-6	SSI 1997-9	Questionnaires 1997
Farmers	185	148	159
Input sellers	10	45	42
Tomato traders	75	50	37
Other crop traders	40	40	50
Officials/others	20	20	-
Total	294	303	288

Note: SSIs are semi-structured interviews. Some of the interviewees in 1997 also completed questionnaires.

Longitudinal studies were carried out that followed 60 farmers from two villages through their harvesting period to monitor the changing prices they received and the difference in price within the village on each day. Weekly monitoring was carried out for three months by Ministry of Food and Agriculture staff. An example of a completed form is included in the appendix. This price information research was followed up with detailed questions on the reasons for price differences, the bargaining procedure and the sources of information that allow farmers to bargain effectively. Similar longitudinal studies were carried out in Kumasi and Sunyani markets.

Group interviews and discussions were used to explore certain issues. The advantages of group work are not only the overlapping range of knowledge, and “observable mutual cross checking” (Chambers, 1997: 148) but also “a means to set up a negotiation of meanings through intra- and inter- personal debates” (Cook and Crang, 1995: 56) that may “bring forth material that would not come out in either the participant’s own casual conversations or in response to the researcher’s preconceived questions” (Morgan, 1988: 21). Morgan (1988: 11) found that the use of focus groups was useful for “orienting oneself to a new field, generating hypotheses based on informants insights, evaluating research sites, developing interview schedules and

questionnaires and obtaining participants' interpretations of results from earlier studies". In this way Morgan sees focus groups as a compromise between the strengths and weakness of participant observation and individual interviews (p.22).

I used both formal and informal groups. Informal group interviews and discussions were not planned but took place when there were a number of people together and willing to discuss a certain issue. This may have been in peoples' houses or in public spaces such as bus stops, drinking bars, or the traders association huts. Formal groups were planned in advance and were found to be particularly useful for certain activities such as wealth ranking exercises, getting community level information (Twyman, 1998) and discussion of the meaning of key Twi words. Attention was paid to the composition and the role of the research assistants as moderators (Cook and Crang, 1995: 57) as this affected the behaviour and hence the information given (Herod, 1993: 308; Mosse, 1993 and 1995). I felt that group work marginalised some groups, especially the poor and women farmers who may not be so well organised (Burkey, 1993) or cannot afford the time (Farrington and Bebbington, 1993). The power relations in the group meetings were problematic at times and, as Mosse (1995: 29) found, this affects who is invited, who speaks, and who is excluded, although some information on social relations within a group can be gained by observing the interaction within groups. We faced problems with domineering individuals and elites (Mascarenhas et al, 1991; Norman et al, 1989; Mosse, 1995:28) who put forward opinions that limited discussions (Cook and Crang, 1995:61). However, this could be avoided if such individuals were taken on one side and interviewed alone by myself or one of the research assistants while the group discussions continued.

Data from interviews and group work were recorded in notebooks except for a small number of tape-recorded interviews. Note taking was found to be preferable to recording as it was more informal, people being interviewed were more comfortable and less suspicious, and the large number of interviews would not have been possible if time had to be spent transcribing and translating interviews. Recorded interviews provided more detail and enabled me to analyse expressions and key words in context. Notes and recordings were transcribed during the day when people had gone to the farms or were too busy to be interviewed. This allowed me to identify issues that

needed further exploration or cross checking, and was a vital part of the ongoing analysis.

Analysis of the qualitative data took place continually with comparative analysis (Glaser and Strauss, 1967) where the researcher seeks negative examples in order to constantly rework hypotheses. The reworking of hypotheses was done during the interviews, in discussions between myself and research assistants after the interview, during transcription, through writing up brief reports for supervisors, and talking to anyone willing to listen to me. Much of the preliminary analysis was in the form of writing notes on the side of transcripts, or noting ideas and memos whenever they came to me (Burgess, 1984:174). Once transcribed, data were formally coded for further analysis with the search for relationships and tension (what does not fit) in the data (Strauss and Corbin, 1990; Janesick, 1994).

3.6.2 Questionnaires and structured interviews

Questionnaires were developed only towards the end of the research when the key issues were identified. Details of the number completed are given in table 3.3. I aimed to keep the number of questions to a minimum so that each one could be completed in less than 30 minutes in order to avoid mistakes and ‘non sampling error’ due to boredom on behalf of the respondent, myself and research assistants. I limited the subject matter to those issues that could be accurately collected; I avoided questions referring to income, expenditure, indebtedness and labour time as previous attempts had shown that the people were unwilling to talk openly about these issues and may not know the answers. Most interviewees were comfortable providing answers to questions about credit provided and received. In cases where interviewees appeared to be unwilling to answer, they often claimed that they did not know. Therefore some tables in the later chapters have a combined category of ‘don’t know or unwilling to answer’ as it was not possible to separate the two responses.

The questionnaires were piloted thoroughly and revised. I carried out many of the questionnaires with research assistants when they formed part of the semi structured

interviews. For these interviews I did not use questionnaire sheets as this appeared too formal. I was not able to administer all the questionnaires myself so I designed a short questionnaire (shown in the appendix) and used the staff of the Policy Planning Monitoring and Evaluation Department of the Ministry of Food and Agriculture to carry out the work. I had worked with some of the staff before and so knew which individuals were good interviewers.

3.6.3 Participatory methods

The potential benefits and limitations of participatory approaches such as Participatory Rural Appraisal or Rapid Rural Appraisal were discussed earlier in the chapter. I found that some of the tools were of particular use for academic research especially those that rely on visualisation and diagramming. These tools can allow a broad cross-section of people to participate in the research process and play a role in the collection *and* analysis of the data as the participants have greater control over the research process. Examples of tools and exercises used include mapping of communities to prepare for further in-depth interview sampling, wealth ranking, seasonal calendars and daily activity programmes. (Chambers, 1997; Kapila and Lyon, 1994; Theis and Grady, 1991). These approaches have been popularised by PRA/RRA although many have been part of the geographer's and anthropologist's repertoire for many years (Binns et al, 1997; Chambers, 1983).

3.6.4 Observation

Observation played an important role throughout the fieldwork. This took place continually while living in Ghana, both in the towns and in the villages, and especially during interviews and while waiting for interviews. I cannot refer to this as 'participant observation' as I was not able to actually participate in the trading, financing and building of contracts, although my experience of building research relationships and participating in village events, such as funerals, was useful in understanding how farmers and traders built up trust. In the markets, I followed the

approach of Hollier (1986) who adopted a method of ‘lurking’ which he defines as the “patient, unobtrusive observation of market transactions, recording the prices actually agreed by buyers and sellers”. This enabled me to collect much information by observing negotiations or disputes and then discussing them later with both parties.

3.7 Conclusion

This chapter has set out the methodologies and set of data collection tools required for empirical studies of institutional economics and the embeddedness of economic action in social structures. Building on the theoretical framework presented in chapter two, the methodology was adapted in order to collect and analyse data that can give a rich explanation of what is actually happening in the markets of rural Ghana. I have attempted to develop a mixed methodology, that relies for the greater part on qualitative data. The exploratory nature of the work required an inductive approach that created the opportunity for me to explore new ideas and linkages as they became apparent.

I have tried to present my role through the research experience in order for the reader to understand the context of the data and analysis presented. This context is also shaped by my previous research interests, academic background and how I entered the subject; these issues are discussed in the introduction. I have limited the discussion of my positionality to this chapter. I recognise the role my position has played in the data collection, analysis and presentation. However, I feel there is validity in the information presented and that the farmers’ and traders’ activities and coping strategies are of more interest to the reader than my own.

Discussion of sensitive issues required an approach by myself and research assistants that could build up trust and also recognise the power relations evident in the research exercise. At times these issues were discussed with the interviewees, comparing our relationship to economic relationships that were the subject of the interviews. In most cases, the build up of trust and the power relations was less explicit but played an important role in the research all the same. The analytical framework set out in

chapter two can be used for understanding the relationships within the research encounter as well as for understanding the farmer' and traders' relationships that I will now explore in detail in the following four chapters.

Chapter 4. Tomato production and marketing in Ghana: establishing the social, political, historical and environmental context

4.1 Introduction

Previous chapters have laid out a theoretical framework for analysing the case study material. This chapter explores the background to the case study by examining the history of commercial agriculture in the study area, the environmental factors that shape the location of tomato cropping, the tomato production and marketing system and the differences between the groups of actors involved in the system, namely the growers, input dealers and tomato traders.

Production and marketing of tomatoes differs from that of many other crops because of the tomato's perishability and high input costs. These attributes pose unique problems for tomato farmers (as compared to those growing other crops) and result in a wide range of contractual forms and institutions. It is these institutional aspects that are at the core of this thesis: through their analysis, lessons can be learnt about the wider institutional context of rural economic change in Ghana.

This thesis takes the tomato system as a case study and concentrates on tomato farmers and traders working in Brong Ahafo Region and in the markets that are supplied with tomatoes from this area. The research areas in Brong Ahafo include Wenchi, Techiman and Tano Districts (see maps 3.1 and 3.2). This area lies between latitudes 7.2 and 7.9 degrees north, and longitudes 1.8 and 2.7 degrees west.

4.2 Production context

4.2.1 The history of commercial agriculture in Ghana and the study area

The history of commercial agriculture in Ghana has been characterised by a peasant mode of economic organisation or small commodity producers which has continued to the present day (Hill, 1963; Hill, 1970). By commercial agriculture I refer to the

production of crops mostly for sale, usually outside the community. Much of the history of commercial agriculture in southern Ghana has been centred around the key cash crops of kola nut, rubber, palm oil and, most importantly for the study area, cocoa. The development of these cash crops has laid the foundations for vegetable production in the study area.

There is little written material on the agricultural systems of Ghana in the pre-colonial period (McCaskie, 1995). Subsistence agriculture, combined with the production of gold, was the basis of the Asante society. There is contradictory evidence on the extent to which this form of agriculture was egalitarian or feudal. Hymer (1970) suggests a picture of equality and democracy as “land was distributed equally and most families had full rights to the land they used, paying little or nothing in the way of rent or tax. A fair share of available land was the right of every member of the community and there was no leisure class deriving its income from rents” (ibid: 34). This simplified view of land access ignores the hierarchical political structures that have emerged since the seventeenth century. During this period wealthy individuals or *birempon* moved into new forest lands. There was frequent conflict, with the stronger *birempon* emerging as overlords (Wilks, 1982). The inequality of rural life was exacerbated by the growing use of slaves in many Akan¹ areas. The power of the feudal traditional leaders was exercised in the collection of tributes (Mikell, 1989a) although during this period the village retained much of its autonomy (Amanor, 1994). The absence of large land owners continued until the growth of the cocoa industry in forest areas of Ghana at the beginning of the twentieth century, as attempts by European powers to start plantations had failed (Dickson, 1969).

The earliest large scale cash crop of the peasant farmers in southern Ghana was kola nut. This crop, collected from the forests and forming part of the indigenous, pre-colonial trade across much of West Africa, continued to be the biggest export from Ghana until the beginning of the twentieth century (Dickson, 1969). Palm oil was also an important crop in the south of Ghana, supplying the European markets, although

¹ The Akan areas refers to the Twi speaking people who live in southern Ghana. They include the Ashantis, Brongs, Ahafos in the study area of this thesis as well as other ethnic groups to the south and east of the country.

this trade declined in the 1860s and 1870s because of competition from south east Asian plantations and the increased use of mineral oils (Amanor, 1994: 44). In the forest areas, including the study area, rubber production started in the 1880s (Dickson, 1969) although it did not take off as a major crop until 1898. Prior to that date, the cost of head loading it was too expensive (Gould, 1960). Production increased up to 1913 when the world price collapsed; production was low for the next 10 years (Busia, 1951: 122).

It was the dramatic rise of cocoa that has had the largest and most lasting impact on the rural economy of southern Ghana. It was first exported in 1885 and in the next two decades it became the largest export from Ghana (Dickson, 1969: 165), dramatically changing the structure of the economy (Szereszewski, 1965). By 1900 the export of cocoa stood at 179 (imperial) tons p.a.. This rose to 4,170 tons in 1911 and to 17,939 in 1915. By 1938 exports had risen to 90,000 tons (Busia, 1951: 121). The rapid increase in cocoa production was possible in part because of the institutional systems that evolved, most notably the company system of land purchases and the *abusa* sharecropping systems (Hill, 1963).

Cocoa production led to some neglect of food farms which alarmed both the colonial and traditional authorities (Busia, 1951) although most farmers practised both (Dickson, 1969:312). Cocoa expansion was promoted through the establishment of agricultural stations starting in 1906 that produced seedlings for the farmers. There was no support in the form of institutional credit for peasant farmers; this form of support did not appear until the late 1960s (Akoto, 1987). Government promotion of the expansion was mainly in the form of improving the transport network. New areas for cocoa production were opened up and farmers planted cocoa in the expectation that roads would reach areas soon (Gould, 1960:40). The first lorries were operating in the 1900s (Szereszewski, 1965: 63), although motorised transport only took off after the introduction of American Ford trucks around 1914 (Dickson, 1969: 229). Cocoa farmers played a role in building feeder roads or moved to roadside areas (Gould, 1960: 66). The expansion of cocoa into the forest frontier area of what is now southern Brong Ahafo started after 1925 when the road was built and tarred (Dickson, 1969).

There was large scale migration into cocoa growing areas of south and central Brong Ahafo, as Ashantis moved from Kumasi and Mampong areas and Brongs moved from Wenchi (Hilton, 1960: 29-30). Dickson (1969: 279) reports on the wider depopulation of the transitional zone of central Brong Ahafo because of the attractiveness of cocoa and the decline of trading centres linking the south of Ghana with the north. There was also considerable migration of people from the north of Ghana ('stranger' farmers) who came to work on the cocoa farms, often in share cropping arrangements. These groups set up settlements on the edge of existing villages and today each large village or town has an area where the stranger population live, referred to as the *zongo*. The road network, combined with better security, also resulted in localised movements as farmers moved to more accessible villages and better land (Dickson, 1969: 282).

The agricultural policy for other crops in the first decades after independence was characterised by a push towards experimenting with large scale mechanised agriculture of export crops in the transition and savannah ecological zones (Hansen, 1989; Akoto, 1987: 243). This was part of attempts to move away from the peasant model of production toward Nkrumah's vision of collective and cooperative farms and large scale irrigation projects. The extent of the state farms was limited as the programme suffered from mismanagement (Hansen, 1989) and, as Tonah (1994) found, "dissipated national resources massively, and benefited mainly the commercial farmers and bureaucrats who employed their privileged positions to obtain access to bank loans, credits, subsidised inputs and machinery" (ibid: 120). The farms made considerable losses which led to the collapse of the Agricultural Development Company in 1962. This was replaced by the State Farms Corporation which continued to take up much of the agricultural public expenditure, despite the acknowledgement of the importance of small scale production in the Seven-Year Plan of 1964 (Akoto, 1987: 247-8). The change of government in 1966 to more market friendly policies resulted in a move away from the nationalised State Farms but continued to support large scale agriculture in the private sector through subsidised inputs (Hansen, 1989; Akoto, 1987:248-253).

Government agricultural policy neglected the needs of the small scale farmers until attention to small scale production began in 1972 with 'Operation Feed Yourself'. This policy was introduced as an attempt to reach self-sufficiency in food production as the

economy went into decline. There was a rapid increase in government funding for agriculture, although it had little effect as agriculture was entering a period of contraction (Akoto, 1987: 250). The late 1970s and early 1980s were a period of serious economic decline. The economic situation was exacerbated in 1983 when there was a severe drought, extensive bush fires and the repatriation of one million Ghanaians who had been working in Nigeria. Faced with such problems and with the economy in decline, the government accepted International Monetary Fund and World Bank structural adjustment policies.

The cocoa industry in Ghana dominated the post independence economy although it declined dramatically in the late 1970s and early 1980s. By 1984 production was half the level of 1974 (Mikell, 1989b). This was partly due to the severe forest fires of 1983 when many cocoa trees were destroyed. It was also due to the long term lack of price incentives offered to farmers. Falling world prices and price fixing by the state run marketing body (COCOBOD) resulted in farmers receiving as little as one quarter of the world price (Sarris and Shams, 1989). The difference between world prices and that received by the producers originated as a 'Stabilisation Fund' to maintain farmers' incomes when world prices dropped, but over time this became a major source of government revenue (Sarris and Shams, 1989:135). Farmers responded to the low prices by smuggling the cocoa to Côte d'Ivoire and Togo (Bates, 1981:86; Mikell, 1989b: 460).

Structural adjustment programmes have concentrated Government agricultural policy on increasing export crops and import substitution, although policy documents also state that it is concerned with food security, small holder productivity and balanced regional development (Ministry of Agriculture, 1990). An important part of the policy has been an increase in the price of cocoa to give incentives to farmers. There has been an increase in cocoa production since 1984 although it is limited by the ageing of the existing trees and environmental changes (deforestation and soil fertility decline) in traditional cocoa growing areas such as Brong Ahafo (Amanor, 1993; 47). Therefore most of the new plantations are in the Western Region. The late 1980s and early 1990s saw a shift in policy emphasis to small scale food crop production although this was partly due to the lack of funds for large scale projects since the implementation of the

Economic Recovery Programme (Tonah, 1994: 120). The government has concentrated on increasing the production of staple crops, especially maize. This has been limited by the increasing costs of agricultural inputs as subsidies were removed as part of the Economic Recovery Program. In the past four years agricultural policy has also stressed the need to support rural incomes and to promote other crops such as vegetables. However, there had been very little vegetable research and extension advice to farmers before this shift occurred.

This brief history of agricultural trends in southern Ghana sets the context for the wider discussion of the institutional forms of the vegetable production and marketing system. Of particular interest is the continued importance of small scale agriculture and the poor state of the rural economy.

Most of the Ghanaian cocoa industry has continued to follow a peasant model of rural economic change, rather than that of plantations managed by Ghanaians or Europeans. The peasant model has been found to be cheaper because it uses family labour and the land can also be used for subsistence purposes (Konings, 1986). Hymer (1970: 46-8) suggests that the plantation model did not take off because the colonial government did not make available large tracts of perceived 'vacant lands' to foreign investors. This was based on the policy of preserving indigenous institutions in West Africa and the threat of political resistance following interference with land ownership.

The weak position of the non-cocoa agricultural sector has been blamed on a number of factors. On the one hand, the dependence on the world economy because of the focus on export crops has damaged the rural economy. This has been combined with national government policies that have attempted to extract surpluses through the marketing boards (Ilfie, 1983: 37) and concentrated on export crops that they can tax. There has also been an urban bias in the policies that have been more concerned with keeping urban prices low rather than improving rural livelihoods (Amanor, 1994: 48). Inappropriate technology for food crop farmers (Amanor, 1994) and lack of funds for the national agricultural research programme (Tripp, 1993) have contributed to the poor state of agriculture and the rural economy.

Finally there are arguments that link the poor state of agriculture with cultural explanations. The land tenure situation and the lack of clear property rights are continually criticised in policy documents and are based on a colonial eurocentric discourse. The conclusions of the agriculturalist, La Anyane, sum up the thinking that has been perpetuated into the present day:

“the social and family structure which dominates local agricultural organisation was also largely responsible for the impervious surface offered to new ideas about crops and methods. The Ghanaian land tenure system was the main drawback to agricultural development and would still render futile the efforts of the great transition if it remained unchanged” (La Anyane, 1963).

This view is also supported by those promoting neo-liberal approaches; they see this as a severe constraint to development as it does not create the ‘enabling environment’ that is required to lead to economic change. However, this viewpoint chooses to ignore the amazing growth of the cocoa economy much of which has to be attributed to the social organisation and land tenure system. The extent to which pre-capitalist and culturally specific institutions support or hinder development is discussed in the final chapters.

4.2.2 Environmental factors and location of tomato cropping

The aim of this thesis is to explore the role of social factors in the development of the tomato industry in Brong Ahafo Region but this must be seen in the context of the opportunities and constraints posed by the natural environment. In this section I examine the natural resource base that has shaped the cropping patterns of the past. I also investigate the reports of environmental change, the impact of past cropping patterns on the environment and the impact this has had back on tomato production systems.

The local environmental factors and conditions required for tomato production

Tomato production requires long sunny periods with light evenly distributed rainfall (Purseglove, 1968: 532). There can be problems with excessive rainfall as the plants

are very susceptible to diseases (Phillips, 1977). The amount and patterns of rainfall differ within the study area. In the south the average annual rainfall is 1200 mm and there tends to be a bi-modal pattern with maximum rainfall in April to June (major season) and a minor season from September to October. The northern part of the study area has patterns closer to a savannah climate with less pronounced bi-modal peaks. However, there is much variability especially in relation to the timing of the early rains in March and April (Wills, 1962).

Temperature is an important factor in tomato production as high night time temperatures can affect fruiting (Purseglove, 1968); ideally night temperatures should be between 10°C and 20°C. The minimum temperatures, collected in Wenchi from 1961 to 1990, show mean monthly minimum temperatures ranging between 20°C and 22°C (Holland, 1995). The minimum temperatures in other parts of Ghana are higher for all of the year except the dry season when it is not possible to grow tomatoes unless there is irrigation.

The terrain in the study area is gently sloping and tomato production is found on a range of slopes. It appears that relief is not important except where it affects soil quality (Wills, 1962: 208). The drainage patterns and location of streams has a major influence on dry season production as farmers will locate their farms next to sources of water that will not dry up during the production period. Tomatoes will grow on a wide range of soils although optimal conditions are light loamy soils with good water holding capacity but also free drainage (Phillips, 1977:76; Purseglove, 1968: 532). The soils in the study area are classified as Forest or Savannah Ochrosols (Holland, 1995). These soils are well drained, porous, friable and loamy. Brammer (1962: 94 and 106) states that the greater part of the nutrients are associated with the organic matter and that there is higher organic content in the surface layers under forest environments. The lack of organic matter in the Savannah Ochrosols result in the poor provision of phosphorous and nitrogen (Nye and Stephens, 1962: 142-3). Micro-nutrients may be deficient and cation exchange capacity low, limiting the ability of the soil to hold nutrients in a form available for plant use (Holland, 1995:4).

Many areas are underlain with compact concretions and impermeable iron pans. This is a particular problem in the middle slopes in the undulating terrain and in places erosion has brought these outcrops to the surface. The nature of these concretions range from massive hard iron pans that reduce the soil available to plants, to less detrimental stony beds (Holland, 1995:5). Concretions are also found in the valley bottoms in the Savannah Ochrosols (Brammer, 1962: 105). The valley bottom soils, used intensively for irrigated production in the dry season, remain waterlogged for much of the year and have structureless soils with low organic content. They become slushy when wet and solid clods when dry (Holland, 1995: 5).

Environmental changes and cropping patterns

The changing patterns of rainfall in the south of the study area in the past 20 years include a reduction in the main rains from May to June and an increase in rain during the short dry period of July to August. This could be seen as a benefit to cropping as it increases the periods of cropping. However, the data shown in table 4.1 hides the variations between years and this has affected agriculture dramatically by increasing the uncertainty of planting time (Amanor, 1993: 11). Other important indicators of change are the number of rain days. At Wenchi town, the number of recorded rain days has dropped from 142 between 1961 and 1970, to 130 between 1971 and 1980, and to 110 between 1981 and 1990 (Afikorah-Danquah, 1998).

Table 4.1. Average monthly rainfall totals in Sunyani (mm)

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1930-1975	0.3	2.5	168.7	149.1	199.4	268.5	106.4	13.0	211.8	189.7	30.5	0.0	1339.9
1984-1994	5.4	38.3	118.2	118.6	144.7	178.9	111.4	79.2	184.6	162.9	31.7	22.9	1196.7

Source: Holland (1995)

There are also reports of changing vegetation patterns. The ‘natural’ vegetation in the study area consists of semi-deciduous forest but this ranges from denser forest in the south to savannah transition in the north where there is a mosaic of grassland and forest

areas. The boundary between forest and savannah is shaped by patterns of rainfall, topography and geology. The boundary between forest and transition zones is not clear and many farmers and local officials claim that the forest has become degraded and savannah species are invading. The extent of this 'savannisation' is not clear as there were patches of savannah in forest areas before human interference (Afikorah-Danquah, 1998).

The reasons for the environmental change have not been established. Changing patterns of rainfall may be a cause and also an effect. While the forests do appear degraded, Fairhead and Leach (1998: 65) question the use of poorly stated definitions of forest areas.. They suggest that unsubstantiated statistics have been used in the past to make claims of considerable loss of forest area while historical reports claim that large areas of forest had been destroyed by the turn of the century.

The human impact on the forest reserves has been brought about by farming, logging and bush burning. The logging has been carried out by timber contractors from outside the communities and by tobacco companies requiring fuel wood for curing. The bush burning is a natural phenomenon but farmers reported that the frequency of fires had increased as hunters use it as a way of flushing out game. The extent of farm encroachment varies from area to area. There has been a considerable increase in population density in Brong Ahafo, rising from 19 persons per km² in 1970 to 31 in 1984 and to an estimated 41 persons per km² in 1994 (Amanor, 1993). The impact of this will not necessarily be encroachment on forest land as it may result in a reduction of fallow periods.

This thesis is concerned with changing cropping patterns and environmental changes in the previously cropped areas. Farmers report that, in response to environmental changes, they have adapted their cropping patterns. Throughout the study area, there has been an increase in the proportion of maize, cowpea and vegetables grown and a decline in the production of cocoa, plantain and cassava (Marfo and Wiggins, 1999). The favoured crops are better suited to the changing rainfall patterns. The decline of cocoa is also related to the lack of forest cover needed because of logging of trees from the farm land. The cocoa production has also declined because the trees were destroyed

in the severe fires of 1983 and the farmers did not view replanting as a viable alternative.

4.2.3 The tomato farming systems in Brong Ahafo

The tomato is an important part of the Ghanaian diet and one of the more widely grown crops. It was introduced during the eighteenth or nineteenth century and now is an established part of most traditional southern Ghanaian dishes. None of the farmers in the study area were found to be growing tomatoes as a sole crop; it fits into a wider farming system that includes crops such as maize, cassava, yam, plantain and other vegetables such as garden egg, okra and chilli peppers. Vegetable production started on a commercial basis in Brong Ahafo in the 1960s and it grew dramatically in the 1970s and 1980s as there was increased demand from urban areas and improved transport facilities. Similar changes have been reported by Guyer (1997: 78) in regard to the areas supplying food to Ibadan, Nigeria. Furthermore, as a source of income, tomatoes were a replacement for the cocoa crop after the cocoa trees had been destroyed in the bush fires of 1983. Before tomato was grown commercially, production was carried out on a small scale for subsistence and then any surplus was sent to local markets. Growing for consumption and local markets is still an important part of rural livelihoods, especially for women. The tomato farmers of Brong Ahafo, who produce on a more commercial scale, supply the main urban markets in southern Ghana and account for a large proportion of the tomatoes produced in the country. There is a small export trade to neighbouring countries.

Recent increases in urban demand have led to certain areas becoming specialised tomato growing regions, Brong Ahafo in particular. A survey of 300 farmers in Brong Ahafo in 1994 found that 60% were growing vegetables and, of these vegetable growers, 41% were growing tomatoes. Eighty-five per cent of these vegetable growers had vegetables as their main or second source of income (Sherrington and Suglo, 1994). The main tomato producing areas have benefited, with farmers being able to obtain considerable sums of money to invest in other businesses and in local infrastructure such as housing. Tomato production has also created much employment

for labourers and farmers. The commercial production of tomatoes can give high returns in a short space of time, but it requires significant capital investment, and there are risks in terms of both production and market failure. Therefore farmers consider vegetable production as part of their wider livelihood system that includes other crops and non-agricultural income sources.

Seasonality

Vegetable production takes place throughout the year but certain villages are known by traders to produce at certain times. Many of the farmers in one locality will start their farms at the same time and harvest together so they can attract a large number of traders who are guaranteed to fill their trucks in one location. The timing of tomato production can be restricted by the need to grow other food crops in the main rainy season. Farmers can produce in the dry season, but only with irrigation from streams and rivers. Many farmers try to reduce the amount of irrigation needed by starting to farm before the rains have finished or irrigate the land for the first month and then rely on the rains. Production can also be carried out in the dry season in certain swampy areas as crops rely on the residual moisture in the soil.

Farmers in the study area report that the weather has become more unpredictable and so some are changing the timing of their production. Farmers in Derma reported that they are planting the dry season crop several weeks earlier than they did 10 years ago, as they use the last rains to water the crop and then irrigate later. The late rains have become more uncertain and so farmers may have to irrigate for longer. There are two Government-managed irrigation schemes in the study area, at Subinja and at Tanoso, but in neither of these were farmers growing tomatoes because of soil pest problems. Most of the irrigation is done manually with buckets, although a small number of wealthier farmers have petrol operated irrigation pumps.

Table 4.2 Seasons for growing tomatoes

Season	Timing
<i>Sukan</i>	March-July
<i>Adantem/ sukan kyire</i>	May-September
<i>Fupe</i>	June-October
<i>Fupe kyire</i>	July-November
<i>Petra kan</i>	October-February
<i>Petra paa</i>	December-March

Tomato farm operations

Farming in the rainy season is based on a rotating bush fallow system. The length or density of the rotation varies, depending on the view of the farmer and the pressure on land. In a study in Wenchi District, Afikorah-Danquah (1998) found that the average length of fallow used by indigenous farmers was six years. Farmers have also been reported to make deliberate efforts to leave certain regenerative tree species on the farms (Amanor, 1996). The rotations will include a range of other crops and can use a relay system whereby the tomatoes are planted with cassava that grows after the tomato crop has been harvested. The dry season farms are more intensively used than the rain fed land and are cultivated each year in areas where there is a shortage of land that can be irrigated.

Land is cleared each year using cutlasses. The extent of clearing on tomato farms can be greater than other crops because the crop is not shade tolerant. On some farms the land is ridged using a hoe. This is more common amongst migrant farmers because of their traditional farming practices that were developed in the savannah zone. The land is weeded one or two more times during the growing season. Tractor services are used for ploughing land on the few farms in the savannah and transition zones where the tree stumps have been removed. Tractors are also used for carting produce. Only a small number of farmers were found to be using the tractor ploughing services for their

tomato farms. A survey in Wenchi District of 169 tractors, found that 90% were being hired out, but only 20% were being used for cultivation, with the rest used for carting water, fuel wood and farm produce (anon, n.d.). Each tractor owner employs a driver who gets a monthly salary and who subtracts some money from each day's taking for his food costs.

Ploughing is perceived to be expensive at C25,000-30,000 an acre and farmers can only pay later with the agreement of the owner of the tractor, not the driver. The driver can act as a guarantor for the farmer and pay the owner if the farmer cannot do so. There is also a risk of delays to the onset of transplanting when there is much demand for ploughing or the tractor breaks down. In those villages without tractor owners there are greater constraints and farmers have to rely on tractors from neighbouring towns and villages. The tractor drivers will not travel to villages to plough small areas so small scale farmers have to coordinate with a number of other farmers intending to plough on the same day.

Nurseries are made between 3 and 6 weeks before transplanting. Most farmers use seed that they have extracted from a previous harvest. A survey of 33 tomato farmers in 1996 found that 85 % were using their own seed (Lyon, 1997b). There are a wide range of criteria in deciding which of the many varieties to grow. For those growing for the urban markets, the requirements of the traders are very important. The traders from Ghanaian cities require varieties such as Power and Reno and, consequently, these are the most common varieties grown in the study area. Farmers closer to the Côte d'Ivoire border export to Ivoirian markets which require Pectomech and Tropimech (Wolff, 1998). Farmers will also choose varieties that allow them to achieve a balance between increasing income and reducing risk (Lyon, 1997b). They may, therefore, mix other varieties that are higher yielding but with poor post harvest qualities; traders will allow a certain proportion of these in the crates, although the extent of this changes through the year according to the scarcity of the crop. Farmers prefer varieties that are early maturing and have resistance to water stress, as a shortage of rain is one of the most common causes of crop failure.

Pesticides were introduced by agricultural extension workers for use on cocoa and tobacco, and have been used for the past 20 years in the area. Agro-chemicals were not used on tomatoes until they were grown on a commercial scale but now farmers are reliant on applications of inorganic fertiliser (15:15:15, 23:15:5 and Sulphate of Ammonia), insecticides, fungicides and foliar fertilisers. Farmers who do not have enough money reduce the application rates and doses, or use alternative cheaper agro-chemicals such as the subsidised cocoa and cotton pesticides.

The pesticides are usually mixed into a cocktail with foliar fertiliser. They are applied using motorised blowers and knapsack sprayers. The motorised blowers have been subsidised for the cocoa farmers for many years. They are preferred as it takes a shorter time to spray the farm, although they are not the most appropriate method as they can blow off the flowers. Owners of sprayers do not like to hire out their machines as they are concerned about maintenance. Those without sprayers have to ask an owner to do the spraying for them. In villages with many well established tomato farmers this is not a problem. In two of the less well established tomato producing areas studied, Akete and Kokoago, the farmers have to travel to Wenchi or neighbouring villages, up to 8 km away, to obtain sprayers. Those growing on a small scale and without the resources to get access to a sprayer apply the chemicals using palm fronds (referred to as the 'hosanna' method). Farmers rarely protect themselves from the chemicals and many reported feeling dizzy and sick after spraying.

Chemical fertiliser is used by almost all tomato farmers, despite the doubling of prices (in nominal terms) in the two years after liberalisation in 1991 (Ashitey et al, 1994). The fertilisers are mixed with water before application, or placed next to the plant by hand. It was found that there was a very wide range of prices being paid by farmers in the same area as well as differences between areas (table 4.3). Farmers in areas with less tomato production have to travel to their nearest town to buy agro-chemicals. Prices are lower in Techiman and Kumasi as there are wholesale stores.

Table 4.3 Average prices paid for fertiliser (November 1997).

	Tano Boase	Pamdu	Techi- mentia	Tanoso	Akete/ Kokoago
NPK 15:15:15 50 kg	C32,140	C33,250	C32,500	C34,000	C37,000
Ammonia 50 kg	C25,290	C24,800	----	C26,550	C26,920

Surveys of organic fertiliser use found that very few of the farmers had used manure as livestock is not an important part of the livelihoods for most of the people (Chan et al, 1997). Livestock found in the area are predominantly goats, sheep, pigs and a range of fowls. Chickens are kept by most families in small numbers and there are a growing number of commercial chicken farms. Cattle are kept by a small number of farmers who hire Fulani herdsmen.

Harvesting of tomatoes is done whenever the traders arrive, usually twice a week. The urban market oriented farmers generally sell at the farm gate to traders taking the produce directly to urban markets. Some farms that are far from the road require tractors to transport the harvested produce, especially when the farm tracks are in poor condition in the wet season. Details of the marketing system are discussed in detail in chapter seven.

4.2.4 Disaggregation of tomato growers

There is a range of tomato farmers with differing characteristics. This section examines the range of characteristics that shape each group of actors: issues of crop choice and market orientation, gender, age, ethnicity and wealth.

Cropping and market orientation

Two main categories of farmers can be distinguished according to market orientation and these are shown in table 4.4. This study concentrates on those tomato farmers who grow for the urban markets. These tomato farmers are not the very poorest in the community as they have to have some capital, or the capability to get access to it, in order to start producing on a commercial scale. The categorisation according to market orientation differs from other studies on rural differentiation in Brong Ahafo that have concentrated on maize and cocoa farmers (Konings, 1986; Mikell, 1989a; Milton, 1999). These studies have stressed the dominating role of older men in commercial agriculture. The case of tomato producers is an example of younger men and older women who are able to enter into commercial agriculture and this shows how the relations of production in terms of gender, age and wealth are always shifting. An explanation for these patterns is provided in the following sections.

Details of specific production and marketing issues for the consumption and local market oriented farmers are given in Lyon (1997a; 1997b) and Warburton and Lyon (1995). In this study the term 'tomato farmer' will refer to those farmers growing for the urban markets. This is not to say that tomato production is less important for those growing for consumption and local markets. These farmers may represent a majority of tomato farmers in Ghana; they play an important role in providing vegetables for home consumption which reduces their expenditure on food, increases their nutritional status and improves food security. There are also women who grow for consumption and local markets when their urban market oriented farm has finished.

Table 4.4 Types of tomato producers in Brong Ahafo

	Urban market-oriented	Consumption and local market oriented
People	young men, older women	most women in village
Disposal of produce	farm gate sales to traders serving long distance urban centres	home consumption & headload to local market
Disposal of income	invested back into farming and other enterprises; women may use it for household requirements	used for household requirements, school fees etc.
Farm size	up to 3 acres (1.2 ha.), often about 1 acre (0.4 ha.)	usually small (under 1/4 acre or 0.1 ha.) and scattered plots
Scale	crates	bowls and baskets
Inputs	use of fungicide, insecticide & inorganic fertiliser. Limited use of tractors for ploughing and irrigation pumps	little use of fertiliser & chemicals; no tractors or pumps
Labour	own, hired, communal work groups (<i>nnoboa</i>)	own, family members
Cropping	mostly monocrop with some intercrops;	more intercrops with other vegetables or staple crops
Seasons	all	usually major & minor rainy seasons
Land tenure	family land, personal land, hired, sharecropped	family land, personal land

(developed from Warburton and Lyon, 1995)

Gender

An understanding of gender differences is central to the explanation of differential access to resources and participation in the range of contracts and institutions in the

tomato production and marketing systems. The unit of analysis in this study is the individual rather than the household for a number of reasons. Firstly, there are great differences in wealth and access to resources, especially along gender lines, between individuals living in the same house. In most Akan (Brong and Ashanti) marriages, husbands and wives have separate budgets (Vallenga, 1983:147; Abu, 1983: 162). Household structure is highly varied and there is no Twi word for it. An individual may have their own house, stay in their matrilineal family house (*abusua*), stay in their father's house or stay with relatives. It is relatively common to find duolocal residence where husbands and wives live separately before they have their own house. Abu (1983: 159) found that only 45% of women in an Ashanti town lived with their husband, although the extent to which this pattern is found in rural parts of the survey area is not known. It is difficult to define a household as 'eating from the same pot' as food can be prepared in one house and carried to another; women may also cook and eat in one house and then sleep in another. Mikell (1989a) found that those women that do move to their husbands' house maintain partial residence with their *abusua*.

There are more men than women growing tomatoes for urban markets. There tends to be a larger proportion of urban market oriented women vegetable producers in the villages with a reputation for growing tomatoes. This is because they are assured of a better market and so can sell small quantities easily compared to those living in areas that are not frequented by traders. They also find it is easier to obtain loans and finance in these areas. It is not clear whether the participation of women in tomato production is increasing or decreasing. In cocoa production, it is reported that women's involvement is decreasing as the trees tend to be inherited by men and few women are planting new cocoa farms (Mikell, 1989a; Okali, 1983; Milton, 1999).

Women who produce tomatoes tend to have smaller farms The average sized tomato farm (based on farmers' estimations of their most recent farm) for men was found to be 1.1 acres (0.44 ha.) and the average size for women was 0.7 acres (0.28 ha.). Women require more money than men in order to hire the labour to do the manual tasks that women very rarely undertake, such as clearing the land and making the ridges. On the one hand this is based on the traditional gender division of labour but most women and men with whom I discussed this issue, claimed that it was also due to the differences in

physical strength (*ahodden*). The hiring of labour for these tasks is reduced if women have access to labour through their husbands, children, other relatives and friends. The poverty of individual women is linked to a lack of support from husbands who may have died, left home or refuse to provide assistance.

Women may also find it difficult to get access to capital. To build up the capital necessary for vegetable farming, they may have to work with their husbands for several seasons, work on other people's vegetable farms for a share of the profit at the end of the season, or use other non-agricultural income sources such as trading and selling cooked food. Women are also restricted by social pressures that can limit their income generation. This may come from husbands who do not want their wives to become too independent, and also from other villagers who are envious of their wealth.

Women are restricted in tomato production to an even greater extent as the profit from previous seasons has to be used for household expenditure or education of children, rather than reinvesting in agriculture. Women have to devote more of their time to domestic duties and subsistence food crop production. As women take on greater part of the responsibility for growing crops for subsistence, the timing of tomato production also has to fit around the timing of other farm activities for staple foods. Finally, many men and women reported that women suffer more from illness (although this claim was not followed up in detail in this research). This restricts the amount of work done on the farms and reduces their ability to complete vital agricultural tasks on time.

Wealth

Access to resources for farmers is also shaped by their wealth. Details on wealth differentials are based on wealth ranking exercises carried out with individuals, that showed that non agricultural income and links to those with resources are the most common sources and indicators of wealth. There are a wide range of non-agricultural income generating activities that are used by a large proportion of the farmers. For men these include: carpentry, owning a corn mill, tailoring, driving, charcoal making, basket making, blacksmithing, chain-saw (*dorma*) operating, owning lottery booths or

bars, managing a store, masonry, hunting, palm wine tapping, *akpeteshi* (local gin) distilling and travelling out of the village to parts of Ghana and neighbouring countries for mining and other employment. Women are restricted by lack of time, and their domestic obligations mean that it is harder for them to travel. They rely on trading in foodstuffs, second hand clothes and selling cooked food to other villagers. Women from northern Ghanaian ethnic groups are restricted by cultural mores to a few opportunities, the most important being the brewing of *pito* (sorghum beer). Remittances from family members in cities and overseas can also be important. However, almost all people living in the rural areas have farms as well as their non-agricultural income generating activities.

The agricultural indicators or sources of wealth included ownership of palm, orange and, most importantly, cocoa plantations. Ownership of livestock and poultry was also mentioned. Maize is the major cash crop in the area, so most farmers will sell maize in order to pay for labour and agro-chemicals for their tomato farms. Some farmers are able to store maize over several months and realise large price increases, while others will be forced into distress sales soon after harvest. For the latter, dry season production of tomatoes is limited. Crops such as cassava and chilli pepper are popular with vegetable farmers as they allow a continuous supply of harvested produce and income over a length of time that can be invested into an on-going vegetable farm. Other income sources include labouring on other people's farms. Access to land also differentiates farmers as those without have to hire or do sharecropping. Wealth is also closely linked to health and strength that allows people to farm larger areas.

Individuals in the villages who were participating in the formal economy tended to be ranked in the richest categories. The formal economy refers to government employees or pensioners, especially teachers, and those who have access to loans from the banks. These two factors are closely linked, as most of those who obtain loans and credit are those who draw a salary from a bank. Most of the women ranked in the highest categories of wealth are teachers as well as having other income sources.

The extent of class formation in rural Ghana has been studied in detail (Mikell, 1989a; Konings, 1986). There certainly was differentiation in the pre-colonial period with

divisions between the small number of Akan aristocracy and the peasants. There were also large numbers of slaves working for the elites. There has been considerable intermarrying and, while 40 years ago there was some discrimination in communities against those originating from slave families, now there are very few people who can remember the origins of families. The differentiation was altered with the development of the cocoa industry and the resulting shortage of land in some areas. Divisions grew between strangers and those who had access to land through being members of the community. It also allowed a small number of the elites such as the chiefs to accumulate large amounts of capital (Konings, 1986: 26; Dunn and Robertson, 1973: 50). However, it is not possible to identify the formation of a capital class based on differential access to land as the process of obtaining land differs dramatically between places and is also a matter of negotiation (Berry, 1993; 1997). Milton (1999) draws on Berry's work and finds that social differentiation is fluid and depends on networks that give access to resources and social institutions. He criticises the Marxist approaches for their over-simplification of the concept of class and proposes that differentiation in Brong Ahafo is based on the exclusion of certain groups from certain areas. Exclusion is often based on ethnicity leading to Hill's (1986: 161) conclusion that "stangerhood, not class, was the basis of differentiation".

Age and life-cycle

Age is a factor suggested by farmers to explain differences in vegetable production and wealth more generally. There tend to be more young men growing tomatoes for urban markets. This is partly due to the physical nature of the work involved. Young men are attracted by the quick turn over of money and see it as a way of earning enough money to have independence from elders, move into other employment or travel. The greater number of younger men, as compared to older men, involved in commercial production is relatively unique to vegetable farming as, in other sectors of the agricultural economy, older men dominate the control of productive resources (Milton, 1999). Older men concentrate on other crops because of the strenuous nature of the tomato crop and the perception by the older generation that tomatoes are not a "man's" crop. The main crops grown by older men are maize and cocoa. Older women are more

common than younger women in tomato production as they have greater independence and access to investment capital. They often have lower labour costs as they can rely on their sons for some of the major tasks (c.f. Chayanov, 1966). Examining changes through life-cycles demonstrates how the number of dependants changes over the years as children grow up and support parents with labour and other resources.

The tomato farms are usually managed by one person, although some young men have joint farms with brothers and friends. Married couples may farm together in a variety of arrangements. In the simplest form the men will provide the capital to hire labour and buy inputs and the women contribute labour and are given a gift of cash or kind at harvest. In more complex forms men clear land (either their own or their wife's) for their wives who manage the farm and the income. These forms will change through an individual's life-cycle. The decision by women to have their own farm usually follows disputes with their husbands over the sharing of profit. Age is also linked to health and wealth; many referred to the poor as those who became "too weak to weed a large enough area".

Ethnicity

The important distinction concerning ethnicity is whether farmers are 'strangers' ('migrants') or whether they are descendants of the original Akan settlers. There is difficulty in making this distinction as many have been resident for several generations and have taken Akan names, and so the quantitative data was not disaggregated in this way. The ethnic composition of tomato farmers is biased towards the Akan population, who were the original settlers. While some areas have been settled for centuries, many of the communities where the survey was carried out were only settled in the past 100 years. Most of the descendants of the original settlers are Brong, a politically autonomous part of the Akan. The ethnic groups that make up the Akan speak mutually intelligible dialects of Twi, and have common cultural institutions, such as a matrilineal descent system (Warren, 1975). Christianity is more common amongst the Akan and Islam amongst many of those originating from the north of Ghana.

Traditional beliefs are common in all groups and coexist comfortably with the other religions.

There are several villages in the study area with a mixed population of both Brong and Ashanti (the dominant Akan ethnic group). The difference between these ethnic groups residing in the same village can be hard to ascertain without exploring their history or knowing which chief they pay allegiance to. There was a serious conflict between these two Akan groups in villages around Techiman during the period of the research. There were many deaths (officially six) and considerable damage following a chieftaincy dispute over whether the *Techimanhene* (paramount chief of Techiman) should pay allegiance to the *Asantehene* (leader of the Ashanti people). One village in which the study took place was populated by Nkoran/Kulange speakers who have similar rights as the Akan groups but moved to the village in the past century. A large proportion of this group are now in Côte d'Ivoire.

There are large numbers of 'strangers', mainly from the north of Ghana. These ethnic groups include Mo Dagarti, Kusasi, Banda, Dagomba, Frafra, Wangara, Moshi, Kanjagar, Sissala, Wala, Gonja, Kokomba, Mamprusi and Lobi. Many of them came to Brong Ahafo in the cocoa growing era to do sharecropping and tend the farms. There are early reports of large numbers of 'strangers' working in the study area in Tano District dating from 1910. This led to some tension with riots breaking out in Bechem and Tapa in 1916 (Dunn and Robertson, 1973). They have settled, usually in sections of villages or towns referred to as *zongos*. Individuals from these groups were usually classified in the lower ranks of the wealth ranking exercises. A large proportion of their income comes from labouring on other people's farms.

The migrant farmers are limited in their participation in vegetable farming as they are in other agricultural enterprises. They rarely own any land and can only get land by sharecropping (*abusa*), renting or intermarriage. Migrant women are at an even greater disadvantage as they are restricted in entering into negotiations for land with owners (Amanor, 1996: 32). Migrants are also limited as they tend to be the poorer members of the farming community and cannot get funds for farming from their relations and friends. However, the number of 'strangers' growing vegetables is increasing as they

build up their own capital and learn from other farmers. Most stranger farmers concentrate their resources on maize production and they allocate a larger proportion of their labour to agriculture than other farmers. This may be due to their lack of non-agricultural income generating opportunities.

4.3 The agricultural inputs supply context

4.3.1 The agro-chemical supply system

The tomato business involves a range of actors that support the producers. The most important support services are provided by the traders and agro-chemical sellers. This section will provide a background to the role of the agricultural input sellers and the differences between the types of sellers. The interactions and institutional links between agro-chemical sellers and farmers are discussed in detail in the following chapter.

Agro-chemicals, such as fertiliser and pesticides, have been mainly sold in the private sector since the input supply system was privatised in 1987. Most farmers buy from small stores in the village or local town, although some of the larger farmers prefer to buy in bulk in Kumasi or Techiman. There are a range of selling operations, the smallest being small stores or table top sellers in settlements in the main producing areas. In each of the larger tomato growing settlements there are between three and nine selling outlets that are owned by local men, most of whom are tomato farmers themselves.

Agro-chemical shops obtain their supplies from wholesalers who may also be retailers at the same time. Shop keepers of the small stores in the villages may go to Techiman to buy or to Kumasi. The bigger wholesale/retail shops in Techiman and Kumasi buy their goods from the importing companies. The fertiliser trade is dominated by a few companies especially Weenco and FASCOM. Pesticides tend to come from smaller companies who import from Nigeria, Côte d'Ivoire, and other countries or from the major producers such as ICI that have offices in Accra or Tema. Some have also

bought supplies from the Ministry of Food and Agriculture. Most retailers have built up close business relationships with the wholesalers. This allows them to make orders over the telephone or by sending someone with a message. They can also be assured of quality as there are cases of imitation goods, changing the labels of bottles and dilution. These customer relationships also bring access to credit; this will be discussed in section 5.6.2.

Some retailers have received training from the Ministry of Food and Agriculture through courses in Accra and talks from the staff of the Plant Protection and Regulatory Services Department or the Agricultural Extension Agents. Training was also given as part of the NGO supported Global 2000 programme on bookkeeping and storing chemicals in shops. Training for sellers is very important, as farmers reported that they are the main source of information on agro-chemical usage, although only one seller referred to visiting farms. There is a more formal association of agro-chemical sellers but it is not very active. Its establishment was encouraged by the Global 2000 programme and maize seed programmes. The association acts as a forum for giving advice to members and was also set up for the purpose of obtaining a group loan. This has not happened to date. Among the sellers there is often cooperation when one seller is short of a certain chemical. They also give donations to other sellers when they are bereaved.

4.3.2 Disaggregation of agro-chemical sellers

There is a higher turn over of businesses in villages compared to larger towns (table 4.5). The reasons given for the collapse of business are poor financial management, over extending credit followed by a crop failure, and the owner moving out of the village.

Table 4.5 Number of years selling agro-chemicals

Years	Village (12 sellers)	Small towns (17 sellers)	Sunyani (5 sellers)	Kumasi (8 sellers)	Total (42 Sellers)
Less than 1.5	41.7%	0	0	25.0%	16.7%
1.5-4	33.3%	41.2%	40.0%	25.0%	35.7%
More than 4	25.0%	58.8%	40.0%	50.0%	45.2%
Don't Know	0	0	20.0%	0	2.4%
Av. number of years	3.6 years	5.8 years	6.0 years	6.8 years	5.4 years

In the district capitals there are larger shops and some of these have warehouses. The managers of these shops are mainly men, although there are several women entering the business. They also sell certified maize seed, pesticides for maize storage and fertiliser to maize farmers. The ability to expand is constrained by poor access to loans; shop managers felt that it was necessary to have personal links to the bank staff as well as collateral such as buildings. Administrative delays and costs were also cited as a problem. Very few of the shops in the Brong Ahafo Region had access to loans. One seller had received a loan of C200,000 from a rural bank using two salaried workers as guarantors, and another had received a loan for C500,000 from the Ghana Commercial Bank. The owner of one of the larger agro-chemical retailing enterprises had preferred to obtain a loan from the Roman Catholic Credit Union as the interest rates are low. Almost all were saving with the commercial or rural banks.

Those sellers who have more than one shop, or other work, will have staff to man the store. The number of outlets is shown in table 4.6. The staff are often relatives who are chosen because they are trusted and are literate. The owner is still responsible for deciding who should be given credit. Four cases were found where shop owners left the management of the shop to the person working there. These workers acted as salesmen working on a commission basis, whereby the owner of the shop bought the chemicals for the agent to sell. The agents also bought some of their own chemicals and sold these as their own business.

Table 4.6 Number of sales outlets for each business

Years	Village (12 sellers)	Small towns (17 sellers)	Sunyani (5 sellers)	Kumasi (8 sellers)	Total (42 Sellers)
1	83.3%	47.1%	60.0%	75.0%	64.3%
2	8.3%	17.6%	20.0%	25.0%	16.7%
3+	8.3%	17.6%	0	0	9.5%
Don't Know	0	17.6%	20.0%	0	9.5%
Average number	1.3 outlets	2.0 outlets	1.3 outlets	1.3 outlets	1.5 outlets

The working conditions for the sellers are poor and several complained of feeling ill while working with chemicals; many had not been trained in handling chemicals.

“I got some knowledge while working for my brother ... (I learnt that) you must make sure you eat before you come to work ... the chemicals are powerful and they make you go dizzy”(Philip, Tanoso, Interview 1).

4.4 The marketing context

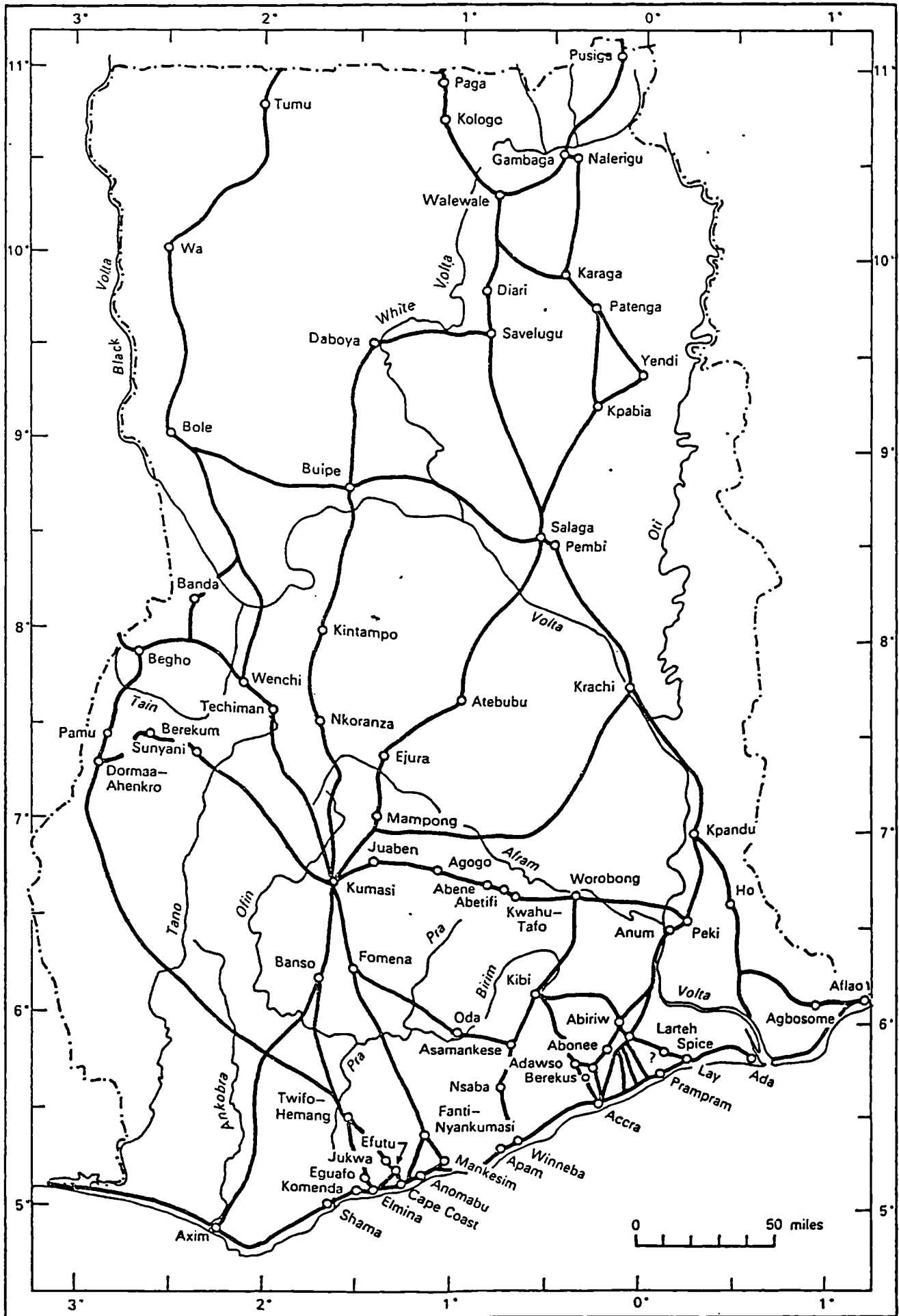
To understand the present vegetable marketing system it is first necessary to have a background to the historical processes of marketing and the development of trade. This heritage now shapes the existing marketing system in Ghana. This section describes the changing trading system of the pre-colonial era and relates that to recent changes and the development of markets that are supplied by the tomato producers. I will then describe the vegetable marketing chain and the different types of traders involved. The types of traders will be disaggregated according to their position in the marketing chain as well as according to gender, age, wealth and ethnicity. I will also draw comparisons with other marketing systems described in the literature.

4.4.1 Historical context of agricultural marketing in Ghana

There has been evidence of trade in Ghana for the past 1000 years. This has led to dramatic social changes over time and the development of economic activity that involved long distance trade and the development of trading networks that stretched throughout West and North Africa. The earliest trade in the region is reported in ancient Mali in the first century AD (McIntosh and McIntosh, 1993: 638) and later growth of trade followed the Arab conquests. Trade to the north of the study area involved gold, slaves and pepper being exchanged for cotton and salt (Hymer, 1970: 39; Lovejoy, 1974). The Bono-Manso and Begho Kingdoms (in what is now central Brong Ahafo) of the fourteenth and fifteenth centuries were established through the trans-Saharan trade (Mikell, 1989a).

The arrival of Portuguese traders on the southern coast of Ghana in the fifteenth century reduced the dependence on trade routes to the north and diverted many of the traded goods to the south. Previously there had been some agricultural trade along the coast but without the growth of trading settlements (Hymer, 1970: 39; Chamlee-Wright, 1997: 14). Other European powers saw the commercial advantages of trade in the region and began to establish trading centres on the coasts. The early trade to the coast was dependent on head portering along small bush paths which were frequently closed because of wars and coastal politics (Szerezewski, 1965: 11; Reynolds, 1974: 26). The early European coastal traders did not penetrate far inland and there developed a system of brokers from the Fanti ethnic group who were the intermediaries between the trading ships and those supplying gold, ivory and, in later periods, slaves (Hymer, 1970: 42; Gould, 1960: 11). The major trade routes in 1702 are shown in map 4.1.

Map 4.1 Major trade routes, c. 1702 (from Dickson, 1969:110).



These brokers continued to play an important role and there developed credit systems that started in the seventeenth century (Daaku, 1970: 42). These credit systems may have been necessary to secure the goodwill of chiefs and important merchants in the face of the intense rivalry between competing Europeans (Reynolds, 1974: 15). The credit system was passed to traders going inland. In 1853 Cruikshank wrote of the trading system that it had:

“become one of simple credit. The natural result of this system of trust, was the extensive diffusion of property throughout every class of society, to a degree which can hardly be comprehended by one unacquainted with the peculiar partiality of the natives”(Cruikshank, 1853: 35-36).

He goes on to describe debt repayments through pawning and selling relatives into slavery. This practice was widely practised especially in the Ashanti areas (McCaskie, 1995:40). There was a range of currencies in the pre-colonial period that substituted for barter. Initially gold dust was used although there were problems with weighing (Reynolds, 1974: 155), while cowrie shells were established currency in areas near the coast but not accepted in Ashanti areas.

The marketing system further inland was dominated by the Ashanti Confederacy, with connected Akan states, which was established at the beginning of the seventeenth century and lasted until the 1850s. Through its control of the trade routes, a large majority of the trade was diverted through its capital, Kumasi (Dickson, 1969: 112). This has had a lasting effect on the patterns of road development even to the present day (see map 4.1). The trade of gold and ivory was controlled by the state merchants and wealthy private traders (Mikell, 1989a; Iliffe, 1983: 14) and the slave trade controlled by the chiefs (Daaku, 1971). Capital accumulation was further restricted by high death duties and unpredictable exactions by the state (Iliffe, 1983: 14). However, the Ashanti state encouraged Muslim traders as they had developed extensive trade networks across West and North Africa (Wilks, 1971: 132-3).

The military ruling elite developed a form of state that was also a trading institution with taxes raised to pay for armies that protected the trade routes (Hymer, 1970. 36, 42-3). The amount of taxes collected increased as the Ashanti developed a monopoly on the trading routes to the coast. The expansion of the Ashanti state was made

possible by the proliferation of guns in the second half of the seventeenth century (Daaku, 1970). A by-product of the expansion was the slave trade which grew dramatically with the increased demand from the New World. The end of the official slave trade in the first decades of the nineteenth century resulted in a decline in the powers of the Akan chiefs as they had lost their main source of wealth and the profits required to buy firearms (Reynolds, 1974: 114). The control of trade by the Ashanti came to an end in 1874 with the destruction of Kumasi by the British and the exile of the *Asantehene* (Chief of the Ashantis).

Agricultural produce marketing has existed in a localised form since settlements began to specialise in trade and which could not grow all their own food. However, exports increased dramatically after the end of the slave trade as traders looked for alternatives to complement the trade in ivory and gold (Reynolds, 1974: 51). This came in the form of palm oil in southern Ghana and by 1853 this had replaced gold as the principle export (Dickson, 1969: 143). The Ashanti traders replaced the slave trade with the increased export of kola nut (Wilks, 1971: 129-130; Reynolds, 1974: 70). This traditional export crop was collected in the forests of Ashanti and Brong Ahafo and exported to North Africa or other West African areas. There had been a long history of kola trade across the Sahara to Western Sudan before European traders arrived. The extent of the overland trade reduced in the second half of the nineteenth century as kola nuts were exported through the ports (Dickson, 1969: 151).

Food marketing started when towns emerged and there are reports by Pieter de Marees in 1602 of men selling sugar cane and women selling their produce in the trading ports along the coast, and buying fish;

“By the time these Peasants have sold their Sugar-cane, the Peasant Women are beginning to come to Market with their goods, one bringing a Basket of Oranges or Limes, another Bananas and Bachovens, [sweet] potatoes and Yams, a third Millie, Maize, Rice, Manigette, a forth chickens, Eggs, bread and such necessities as people in the Coastal towns need to buy These women And peasants’ wives very often buy fish and carry it to towns in other Countries, in order to make some profit: thus the fish caught in the sea is carried well over 100 or 200 miles into the Interior” (De Marees, 1987: 63).

The letters of Bosman in 1702 quoted in Dickson (1969: 98) describe the marketing of food to the mining towns of south western Ghana as well as trade along the coast and fish marketing to the Ashanti areas. The reports of Kumasi in the 1880s show there to be a large market place although much of the food came from the dependent settlements in the suburbs (McCaskie, 1995: 35-6).

Food marketing increased in the colonial period with rapid urbanisation. There had been a long history of food provision for Kumasi and the coastal towns (McCaskie, 1995, Clark, 1994, Dickson, 1969) but new markets appeared with the growth of small mining towns such as Tarkwa and Obuasi. The urban populations in southern Ghana grew at a much faster rate than rural areas due to large scale emigration by rural duellers. Accra expanded because of its status as a capital city and centre of many infrastructural projects, and other smaller towns grew as they became administrative centres².

Kumasi has been an urban centre since pre colonial times with an ethnically varied population because of the large numbers of traders sometimes residing there. It has been the hub of commercial arteries since the nineteenth century when the Ashanti Confederacy forced all trade to pass through the town. The population of the town itself was estimated to be between 12,000 and 15,000 in 1817 although a figure of 100-200,000 was given to include those living in the suburbs and outlying farming villages (Dickson, 1969: 247). The city was destroyed by the British in 1874 although it was able to regain its dominant trading position later (Gould, 1960). The population dropped to an estimated 5,500 in 1899 and was reported at 6,250 in 1906. After this the population grew rapidly to 18,853 in 1911 and has expanded rapidly since then. The

² The towns in the study area have been important market and political centres for centuries and developed under pre-colonial trade patterns and also as the seat of the paramount chiefs. The exception to this is the regional capital, Sunyani, which became established because of its role as a colonial administrative centre and a cocoa buying centre. In the pre-colonial period a large proportion of population of these towns were 'strangers', living in areas of the towns called *zongos* although their number declined between 1931 and 1948 because of declining trade (Hilton, 1960: 30). However, this trend was reversed after the building of the Akosombo dam and creation of Lake Volta as the major roads to the north of Ghana passed through central Brong Ahafo.

building of the railway galvanised Kumasi's, and Accra's, central position in the trading system especially for kola nut and cocoa (Chamlee-Wright, 1997: 115; Dickson, 1969). The latter crop was a key factor in the rapid growth of Kumasi between 1921 and 1948. The collapse of cocoa and the declining terms of trade for rural producers has led to increasing urbanisation since the 1960s (Mikell, 1989a; 1989b).

Table 4.7 Population of Ghana and major towns

	1921	1931	1948	1960	1970	1984	1993 (est.)
Sunyani	3,000	-	-	15,810	27,500	36,100	45,000
Wenchi	5,309	3,812	-	10,672	14,364	18,400	22,500
Techiman	-	-	-	8,755	12,463	25,200	-
Kumasi	23,694	35,829	70,705	180,642	260,286	399,300	475,000
Accra	38,000	60,000	135,000	388,000	-	956,000	1,264,000
Population of Ghana	2,200,000	-	4,100,000	6,730,000	-	-	16,000,000
Percentage urban	7.9%	-	13.0%	23.1%	-	31.0%	32.0 %

Sources: IDC (1989), Ghana Statistical Service (1994), Benneh (1990), Population Impact Project (1994), Hilton (1960), Chamlee-Wright (1997).

Note: The percentage of urban population refers to those living in settlements of more than 5000 people.

Head loading was the predominant transport mode until the 1920s. The railway system was used for supplying certain towns, although road transport predominated after 1945 (Gould, 1960: 90). Much of the urban food supply continued to come from near the towns, except for onions that were grown in Keta District, in the south of Volta region and taken to much of southern Ghana. A large proportion of the local trade was carried out by women who sold the produce of husbands or fathers (Robertson, 1984: 93),

Techiman has now become one of the largest trading centres in Ghana, acting as a relay market. The population of the town has risen very dramatically because of this.

although urban itinerant traders started to trade as the cities grew and supplies became more distant.

The early British policies which related to marketing concerned the improvement of the trading routes following British political control of the country and the establishment of administrative posts (Gould, 1960: 13). McCaskie (1995: 10) comments on the *nkwantempon* or 'great roads' radiating out of Kumasi and states that:

"on the one hand they were triumphs of muscle power, organisation and ingenuity. On the other, they were a fragile, technologically underdeveloped communications system, subject to recurrent disruption and to very rapid deterioration if and when they were neglected"

These 'great roads' followed the traditional trading routes set by the previous policies of the Ashanti Confederacy and there were smaller 'hammock tracks' used by officials and traders to reach villages. Palm oil was transported by rolling barrels and all other goods were transported by head loading as load-bearing animals were inappropriate because of the prevalence of tsetse fly; this increased costs and only high value and low weight goods were profitable (Gould, 1960: 15).

The railways were started in 1898 and dominated other forms of transport in the south of Ghana until the 1920s. They were established to extract raw materials from mining areas and were funded by some of the mining companies (Szereszewski, 1965: 41). By 1920 there were links from Sekondi to Kumasi and Kumasi to Accra: expenditure on railways accounted for 24% of government expenditure and 88% of expenditure on economic services (Kay, 1972: 41). The railways also played a key role in the marketing of cocoa and other cash crops.

Motorable roads were also developed with the introduction of vehicles. These acted as feeder roads to the railway although roads started to rival the railways after the 1920s (Gould, 1960: 44). There were also roads built in the north of Ghana (Ormsby-Gore, 1926). Some of the old routes were lost but the patterns of roads still centred on Kumasi, reflecting its historical trading importance. The main trade routes were under the Public Works Departments and the bush roads under the District Commissioners. There are also reports of chiefs organising the building of roads on their own initiative

(Ormsby-Gore, 1926) and villagers building feeder roads, copying Public Works Department roads elsewhere (Gould, 1960). The costs of road transport were halved once the main roads had been improved as part of the Tarmet programme that started in 1922 and provided a cheap and relatively durable road surface (Gould, 1960: 66).

Other colonial policies included the control of marketing in order to meet the demand for export crops (Hansen, 1989). Cocoa prices were brought under state control in 1928 when the Ghana Cocoa Marketing Board or COCOBOD was established. There were local brokers involved as well who sold to the main European companies. The discontent of the farmers led to the four cocoa hold ups or boycotts between 1921 and 1938, and laid the foundations for the political uprisings leading to independence. There was also some Government support for the formation of cooperatives.

In the post independence period many of the same policies continued, although there was increasing political interference with the cooperatives eventually leading to them being dissolved by Nkrumah in 1961 (Mikell, 1989b: 458). The cocoa marketing system was concentrated in the hands of state buying agencies and the marketing board was used as a way of generating funds for investing in industrial growth. The state played an increasing role in the marketing of staple food crops from the 1960s in the belief that “inefficient distribution and marketing was the cause of the food problem” (Hansen, 1989).

Growing constraints were placed on the informal marketing system as market traders were seen as the cause of agricultural decline. There developed an antagonistic relationship between the state and women traders. On the one hand this came in the form of what Robertson (1983) refers to as ‘malevolent neglect’, although the confrontation could be more explicit. This came to the fore in the early period of Rawlings’ regime (1979-1983) when traders came under continuing attack from the army and civilian mobs (Clark, 1994; Robertson, 1983).

Investment in roads was reduced as the economic decline in the 1970s and 1980s restricted government expenditure and eventually reached the level of 6% of expenditure in 1979-80 after being at 24.7% in 1953-4 (Akoto, 1987: 249). Road

building and maintenance has increased in the past 10 years with funding from the International Monetary Fund (IMF), World Bank and bilateral donors. The marketing policies of the past 15 years have been dominated by the need to follow the IMF and World Bank Structural Adjustment Programme. This has led to massive privatisation and liberalisation of marketing, although the impact in terms of increased production, higher producer prices for food crops and lower consumer costs has not been felt by the majority of the population.

4.4.2 The present vegetable marketing system

The marketing system for vegetables, including tomatoes, is handled by the private sector. Public sector institutions such as the Ghana Food Distribution Corporation have never been involved in vegetable marketing. The system is characterised by a very large number of small scale traders who are all women. The size of their marketing enterprises is limited by capital and the hardships encountered in trading vegetables. Traders who do well often move out of vegetable marketing when they have enough capital to invest in other trading businesses that do not require travelling.

The marketing systems have similarities with other staple crops in Ghana although there are differences due to the perishability of the vegetables. The main difference is that a large proportion of the produce does not pass through any assembly market but is sold to traders who take it straight to retailers. This can reduce the time taken to reach the consumers and the risk of having losses.

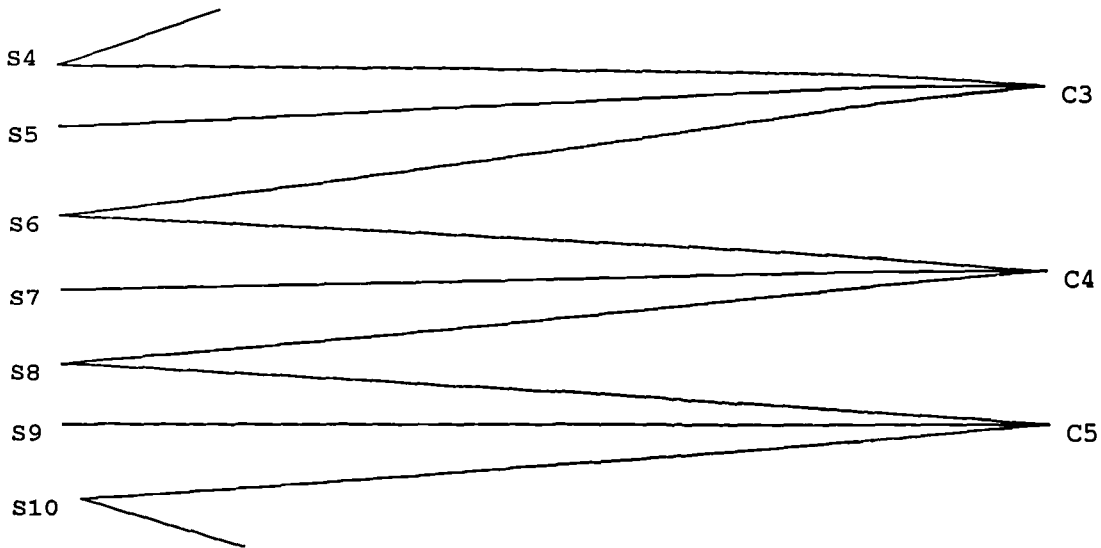
The marketing system for vegetables today appears similar to the two level system described by Jones (1972), in that traders link between their rural buying point and their urban market. Therefore they tend to only have direct knowledge of the supply conditions in any one area and demand conditions in any one town. This is in contrast with the redistributive system (see figure 4.1) where the produce is collected and bulked by assemblers in rural markets before being sold to urban wholesalers at relay markets. At the nodes of this system - the relay markets - buyers and sellers from several supply and consuming centres meet (Warburton and Lyon, 1995).

Figure 4.1 Redistributive and two-level system (after Jones, 1972)

Redistributive System



Two-Level System



Notes: S = centre of supply
C = centre of consumption
I, K = relay markets

Source: Jones 1972, Chart 1, p112

The advantage of the two level system for perishable products such as vegetables, is that the produce can be taken directly to markets without delays associated with passing through a hierarchy of markets. Thus marketing costs of intermediaries, handling, inspecting, repackaging and physical losses are reduced. However, there is a risk that the demand and supply information may be widely distributed and fragmented, leading to poor spatial price adjustments and therefore an economically inefficient marketing system. However, analysis of monthly market prices shows high correlation coefficients between markets which Floyd, Warburton and Gray (1996) suggest is due to some exchange of information among traders about country-wide production conditions.

There are a range of market types and these are described in table 4.8. The household and village markets³ are based around women who are growing for consumption and local markets. They grow a small quantity and what they cannot consume or give away, they sell locally. In each village there are some full time retailers of vegetables and they may travel short distances to other villages or markets to buy produce that is not being grown in the village at that time.

Rural towns have daily markets and weekly markets. The daily markets are often in permanent buildings and there has been some limited investment in market buildings over the past few years. There is some restriction on entry to these markets and farmers often have to sell through, or sell to, a resident trader. Some retailers will buy their produce direct from the farm gate. They often buy the lower quality produce that the itinerant traders going to the urban markets do not want to buy.

³ The present rural settlement patterns are characterised by large villages, especially on the main roads and small hamlets in the remoter rural areas. Some farmers have houses in both and move depending on the agricultural work in progress. The Brong and Ashanti population prefer to live in these large villages while 'stranger' farmers from the north of Ghana dominate the hamlets. The villages in the cocoa growing areas are characterised by the colonial style houses built at the peak of the cocoa period and now becoming dilapidated - a sign of the changing fortunes of the rural economy in the past 60 years.

Table 4.8 Types of markets

Market type	Description
Village household stalls and hawkers	Farmers or their relatives selling small quantities that they cannot consume themselves but not enough to take to the market. Also sell lower quality.
Village markets	Usually <i>small daily retail sales, but may also have a weekly market</i> which can act as a first level assembly point for produce from the surrounding area.
Roadside markets	Daily retail markets which have developed along the main trunk roads. Sell higher quality produce to travelling urban consumers
Small town market - daily	For retail sales. Located in the middle of the town with permanent structures
Small town market- weekly	For retail and also an assembly point with transport coming in from surrounding villages. Usually out of the centre of the town with only a few permanent stalls
Large Urban Markets	Large daily markets with both wholesale and retail sales. Supplies retailers in the rest of the city
Neighbourhood urban markets	Small retail markets

The weekly village markets are open to any one to sell and attract farmers from a wide area. They occasionally act as an assembly point where tomatoes are collected before transfer to the large urban centres. These markets are especially important for okra and pepper and for produce grown in areas where there is not enough supply to attract the itinerant traders. Initial investigations showed that there was no difference in prices between the daily and weekly markets. Periodic markets in the study are not important

for the supply of tomatoes to urban markets. They have played a key role in local supply systems throughout much of Africa (Hodder and Ukwu, 1969), although Siddle and Swindell (1990: 97) claim that most periodic market systems are also part of a “dendretic-mercantile system” similar to Jones’ (1972) two level system.

The large urban markets are the selling points of the itinerant traders. The largest market in Ghana is Kumasi Central Market with an estimated 9000 stalls and 250,000 customers a day in 1989 (IDC, 1989). The large urban markets have a big influence on those farming areas that have a big enough supply of a certain crop to attract them. They are also the supply point for a large proportion of the Ghanaian population and so are politically very powerful.

The physical structures in the large urban markets are permanent although there has been large scale unplanned expansion making them highly congested. This is especially the case in Kumasi. These markets are also renowned for the complex systems of market conduct based around powerful market traders’ associations. There is limited storage in all the markets due to lack of space. In addition, traders are keen to sell the produce as soon as possible so that there is less risk of the produce declining in quality and their capital is not tied up. Retailers may store goods for a few days as they can put small quantities of produce under the stalls. For example, tomato retailers may buy two boxes and not be able to sell them all in the same day. Most markets have security guards, although traders also like to employ their own guards. Storage by those who do not have a stall in the main market is limited to the quantity that they can carry home, unless they are able to make an arrangement to leave produce in a secure place such as a shop.

4.4.3 Disaggregation of traders

As with tomato production, gender, wealth, age and ethnicity shape the marketing system and the position participants have within it. One of the most striking aspects of the vegetable marketing system is the dominance of women, although this is reported in other sectors in Ghana and many African countries (Attah et al, 1996; Clark, 1994;

Handwerker, 1981; Harts-Broekhuis and Verkoren, 1987; Horn, 1994; Onyemelukwe, 1970; Porter, 1988; Sudarkasa, 1973; Trager, 1981a; 1981b; 1985). Trager found that the “market place is historically the domain of women in Yoruba society. Beliefs and institutions recognise women’s importance in the market” (Trager, 1985:280). Horn (1994:46) argues that “in Zimbabwe, the link between women [traders] and specific food commodities is rooted in traditional beliefs about the nature of women and their roles as family food provisioners”. Babb (1985:295) stresses the lack of alternatives available to women in urban areas with trading preferable to domestic work because of the degree of independence and flexibility it offers. Attah et al (1996:7) state that in urban Ghana the large numbers of female headed households result in women being highly economically active although they are often limited to trading.

The early reports of pre-colonial Ghana show that women played a major role in food supply (De Marees, 1602). However, Clark (1994: 6) found that there had been relatively recent shifts in the gender divisions in Kumasi market;

“scholarly accounts of West African market women had often portrayed the markets as supposedly timeless, ‘traditional’ female occupational sector [But] Asante men had moved out of market trading in many commodities now considered stereotypical for women around 1910, shortly after colonial conquest, and had moved into cocoa farming, which then brought them higher incomes and better upward mobility prospects”.

Women did not have access to the same land and resources and so could not participate in cocoa production to the same extent as men (Clark, 1994: 95,115). The next section examines the roles and positions of traders in different parts of the marketing chain.

Urban based itinerant traders

Almost all the itinerant tomato traders met were women, a trend that is found throughout the long distance foodstuff trading system. The men involved are usually from rural areas and can survive because they have close contacts with the producers (Clark, 1994:42). There are limitations on women’s trading opportunities in Islamic areas where local gender ideals can restrict women’s roles. Clark (1994:85) found that

in the past, “male savannah long distance networks made it difficult for Asante women to trade effectively to the north, so women went south to the coast more often”.

Itinerant traders tend to start as retailers or take over from their mothers or aunts. Many obtain start-up capital from their husbands. They learn by accompanying other traders and being given small amounts of money to trade with. Most of the itinerant traders work on their own, although some work in groups, with one person taking the goods of other traders to the market. These groups are made up of relations or long-term friends. However, the dramatic price changes in the market mean that most traders prefer to go themselves so that they can judge the price and bargain.

The urban based itinerant traders (*nkwainsofo*) come from the main cities in Ghana: Accra, Kumasi, Cape Coast, Takoradi, Tema, Koforidua, Obuasi, Sunyani, Techiman, Tamale and Wa. At times they also come from Togo and Côte d’Ivoire. The traders take the produce back to their market, although some traders are registered as members in several markets which allows them more selling outlets.

Urban based traders buy in bulk, assemble smaller quantities, or buy from local assemblers. They only go to areas where they can be guaranteed to find an adequate supply. They hire vehicles, either vans or small lorries, often getting together in groups, although those going to nearby towns usually buy smaller quantities and may rely on using passenger cars or taxis. They pay for the transport according to the number of boxes or bags and so have to fill the vehicle to make a profit. They will drive overnight or arrive in the village the night before and then wait for the farmers to harvest.

Rural-based itinerant traders

These traders live in villages or small towns in areas where the vegetables are produced and buy from farmers to take to the urban markets. There are often restrictions on selling in urban markets imposed by the traders’ associations, with the strictest controls in Accra markets. In other markets they may become part of the association after paying the necessary fees, although many will still have to sell through commission

agents. They have the advantage over urban based traders in that they know the farmers well and so are often able to take farmers' produce to the market and pay them on the return, thereby removing the restrictions placed by not having the necessary capital.

There tend to be more rural-based traders in the villages that have been growing vegetables for a long time as they have been able to build up capital, they have knowledge of the marketing systems and they are known in the main urban markets. Traders from villages such as Abesim and Tuobodum were often reported to be buying from the villages around them and then selling in the city. In many cases they are vegetable growers themselves or wives of vegetable growers.

Rural local assemblers

In the villages there are assemblers: women who buy up small quantities and bulk them before selling to itinerant traders or going to an urban market themselves if the price is attractive. They buy in baskets rather than the usual crates and may also buy damaged tomatoes and sell them locally. They also play a role in guiding the itinerant traders as they know the farms that are ready for harvest. They can be paid a commission from the itinerant traders or they will be given boxes to fill, even when there is a large demand from other farmers. Many of the farmers who supply these assemblers are the consumption and local market oriented farmers who do not have a farm big enough to fill a whole box of tomatoes.

Rural retailers

Some women farmers who grow for home consumption and local markets may sell their own produce locally. This can be done in the weekly village market, or the daily market, if the settlement is big enough. Some retailers will put the produce on a table outside their house or send a young girl to hawk it from house to house. In Techire and Manso, there are special markets that cater for people passing along the main trunk roads in cars and busses. There is a custom in Ghana of bringing gifts of high quality

vegetables and other food when visiting family and friends in urban areas. The quality of the produce is very high and the retailers buy it from farmers at a higher price on the condition that they can harvest it themselves and be selective. The quantities sold each day appear to be small.

Urban sedentary wholesalers and commission agents

Wholesalers and commission agents for tomatoes are not common, although they were found in some of the larger markets. They buy from itinerant traders who do not sell themselves as they are not members of the particular market association, or they do not want to be delayed by waiting for retailers to buy from them. These women tend to be older, wealthier and often have senior positions in the market associations which are discussed in detail in chapter seven. Access to wealth shapes the options available to traders, as some of the more lucrative business niches require access to capital and credit. This is closely linked to age as older women may have built up capital and have networks that allow them to expand their operations.

Retailers

The retailers tend to start with their mothers and will share the profit while working together. A large majority of the traders operating in the urban markets are retailers. These women make minimal profits but retailing is popular because of the small amount of capital required to start. They will buy from itinerant traders coming to the market or the wholesale traders who sell on behalf of itinerant traders. They will usually buy one box at a time and take between one and three days to sell the contents. These women have much less working capital than the itinerant traders and many are reliant on receiving the boxes of tomatoes on credit each time and paying the itinerant traders after one or two days. The organisation of this system is discussed in chapter seven. There are also hawkers who buy from the retailers, or work with their retailing mother or aunt, and carry produce around the market on their heads. This is a way for teenage girls to learn how to trade.

There is much debate in the literature over whether traders are “petite bourgeoisie” or “disguised proletariat” (Clark, 1994: 75-6). Class position depends on the control of the means of production and the means of exchange; this is difficult to ascertain when different actors are closely interlinked in credit agreements. The debates around the informal/formal and petty commodity sector have explored the reasons why there are so many small scale traders in the food supply system. Studies have shown that links to large firms in the formal sector support the large numbers of small distributors, especially for consumer goods (Dannhaeuser, 1985: 181 for a study in the Philippines; Sudarkasa, 1973:37 in Nigeria). Early studies on the subject have also shown that the large numbers of traders is due to the lack of choice for employment in urban areas where there is a shortage of capital and the only resource that traders have is their own labour (Bauer, 1954;18; Mintz, 1964;266).

4.5 Conclusion

This chapter has set out the context within which the tomato farmers and traders operate. I have attempted to integrate the historical, political, environmental and social aspects that shape the patterns of production and marketing. There is diversity within the system and a need to understand the different geographies of tomatoes. The history of how the commercial agricultural sector of Brong Ahafo evolved is useful for understanding how the present institutions operate, based on historical precedent or what North (1990) refers to as ‘path dependency’.

This history of cropping patterns in the study area is shaped by a range of economic, social, political and environmental factors. The environmental conditions, such as the suitability of the forest areas for cocoa production, have also been shifting over time due to a range of factors both natural and human induced. The extent of recent environmental degradation is not clear as the measurements of indicators of environmental change are limited and many of the reports of degradation are unsubstantiated (Fairhead and Leach, 1998). The environmental changes have influenced the growth of tomato production in the case study area as farmers have

reduced their reliance on alternative crops, notably cocoa. Past cropping patterns have played a role in changing the local environment and the present cropping system - that includes tomatoes as well as a wide range of other crops - also has environmental impacts. This study has not been able to explore the environmental implications of an expansion of tomato production in terms of pesticide pollution, soil degradation and removal of vegetation along the river banks. However, the ability of farmers to invest in environmentally sustainable farming practices is dependent on a range of factors including a dynamic local economy and profitable agriculture.

The following three chapters explore the range of institutions that have evolved in the tomato production and marketing system in the study area. This chapter has shed some light on the historical precedents, environmental context, and the background to the different actors involved in the system. Particular attention has been given to the differences amongst the farmers, traders and input sellers. In chapter five I examine the access to land, finance, labour and inputs. This involves a range of contracts between farmers, traders and agricultural input sellers. Chapter six explores the marketing system in the rural areas, looking at the roles of traders and farmers in organising the transport system, buying and selling institutions, information systems and finance for trade. Chapter seven follows the marketing chain to the urban areas to examine the traders' associations and institutions of retailing.

Chapter 5. Social relations, contracts and institutional aspects of the vegetable production system

5.1 Introduction

Previous chapters have laid out the theoretical and methodological framework for looking at the social relations that shape production and marketing. The historical processes in the study area that are the basis of the present production and marketing system have also been described. The next chapters will explore in detail the range of contracts and marketing systems which have evolved in Ghana. These show that the production system is not based on economic and environmental attributes alone but is also shaped by social relations. A detailed description of the range of contract types and access to land, finance, labour and agricultural inputs allows subsequent exploration of the social relations that underpin these contracts in greater detail in chapter eight. A rich description of existing systems provides the foundation on which an understanding of the specific social relations can be formed.

5.2 Access to land

There is a wide range of tenure arrangements that allow farmers to obtain access to the type of land they require. Those growing tomatoes for urban market traders need land close to vehicle access and, in the dry season, near a good source of water. Access to land depends on kinship ties and the history of the settlement. Rights to particular plots are still negotiable within kinship groups and so depend on social relations. The renting of land is more common for tomato production than other crops. The study of land access and ownership provides an insight into the basic family and kinship groups within which farmers (and traders) operate.

5.2.1 Land ownership

Most farmers use their own or family land. Under customary law in Akan areas, the land is 'vested' in the stool (chiefly offices) and held in trust for the community who have claims to be the original settlers or the first to cultivate the land (Berry, 1997: 1233; Amanor, 1993:16; Afikorah-Danquah, 1998). Citizens in the past were allocated land to clear but had an obligation to contribute to the local state (Amanor, 1993:16). Land can also be received from other stools as a gift or through inheritance.

Citizens of the community do not have outright ownership but have usufructary rights¹ if they cleared the land² and keep it within a long duration cycle of cultivation (Amanor, 1993:16). Today much of the land is considered 'family land' and farmers have the rights to the proceeds of their labour but this does not include the trees, timber or minerals. The stools still have allodial³ rights to this land although, in practice, the chiefs do not have the power to take control without threatening their position (Berry, 1997: 1233). This right to land can be inherited and farmers can gain access by virtue of their membership of a kinship group. These matrilineal kinship groups, or *abusua*, are based on matrilineal inheritance, with men passing land to their sisters' sons and, to a lesser extent, daughters. Women have smaller farms and tend to pass them onto their daughters or granddaughters. The head of the lineage, or *abusua panin*, is the custodian of the family land and he ensures all family members have a portion of land (Afikorah-Danquah, 1998). There are also large tracts of land which go with the position of the stool and are not

¹ Usufructory rights refer to the "right of enjoying the use and advantages of another's property short of the destruction or waste of its substance" (OED). The right is held by a member of the land holding group while a stranger can have the usufruct on a contractual basis (Kasanga, 1996).

² Amanor (1993: 16) reported that large tracts of land in Wenchi District were cleared by tractors in the 1960s allowing a few citizens to have holdings of 100-300 acres while only farming an insignificant portion of the land. Land along the river banks has only been cultivated intensively in recent years. In Nchyera village, Wenchi District, the claims on this land were gained by pegging an area of land and if no one removed the pegs, the land could be cleared (Yvon, 1997: 48).

allocated to lineages. This land is separate from the *abusua* land of the chief's lineage and it allows the chief to have a good income and, therefore, greater independence in settling disputes.

The boundaries of land are not clear unless there is a stream or natural boundary and there are many disputes within and between *abusua*. Berry (1997: 1233) shows that access to land is based on negotiation and the historical precedent:

"In most cases individuals' claims stand or fall with the recollections and reputations of their witnesses. In practice land rights are subject to intermittent or on-going negotiation, and tenure security depends more on a person's standing with his/her relatives and neighbors than on the way in which the claim was originally acquired."

This information is used at all levels of dispute settlement from the family level to the High Courts in Kumasi. Most disputes are settled at the *abusua* level or with the stool (the chief assisted by a council of elders).

Today there are increasing amounts of land that are bequeathed directly to spouses and children. This custom grew because cocoa farmers relied on the labour of spouses and children to develop their cocoa assets. The expansion of cocoa had wide implications for social structure; it accelerated changes towards private ownership, reduced the power of lineages and the *abusua panin*, and gave precedent to the male line (Mikell, 1989; Okali, 1983; Busia, 1951: 127). Bequeathing land to spouses and children involves sending symbolic drinks to the *abusua panin* and elders. These inheritance rights have been strengthened with legislation that gives spouses and children the legal right to property and aims to stop the practice of wives and children being driven from their homes by the nephews and nieces of the deceased husband. However, this only applies to self acquired property written into a will.

Farmers may also obtain land from their husband, wife or *abusua* member. Women are often reliant on using their husband's land and this tends to be in less fertile

³ Allodial Title implies an ultimate authority in land matters. It is also known as the

areas. When given land from someone in the *abusua*, the farmer is under some moral obligation to give something to the ‘owner’ of the land, although this is not necessarily fulfilled. ‘Stranger farmers’ or migrants⁴ have experienced increasingly restricted access to land as it becomes more scarce. Some have been able to pay chiefs for the usufruct right and this is referred to as a ‘purchase’ (Okali, 1983: 13). Other strangers have built up close social relationships with indigenous families from the time when they came to labour on the cocoa farms. These farmers now have limited access to family lands which are granted to them as a gift (Amanor, 1993: 21). However, most migrant farmers have to rent or sharecrop, even if they have been resident in the area for two generations.

5.2.2 Renting land

The pattern of land tenure for commercial tomato farmers differs from other crops grown in the study area as there are certain requirements such as good access to roads for marketing and access to water supplies for dry season production. Therefore, there is a large amount of renting in certain villages (see table 5.1), although this depends on the season. The high proportion of rented land is reported in other areas of tomato production and other market-oriented agricultural production systems (Amanor, 1996: 31; Berry, 1997: 1232). However, the high costs and returns for tomato farms compared to other crops, means that the rent for tomato farms is only a small proportion of the total costs involved and not perceived as a restriction on farm size as is the case in maize production.

Non-indigenous farmers often have to rent land and this is one of the reasons for the differences between villages, since some villages have a larger number of non-indigenous settlers than others. The extent of renting also depends on the amount of land in the village and the relative importance of vegetable production. The size of

Paramount, Absolute or Radical Title (Kasanga, 1996)

⁴ There are difficulties in defining a ‘migrant’, ‘stranger’ or ‘northerner’ which creates problems when trying to disaggregate data. There are different types of strangers

rented farms was found to be larger than the average tomato farms. This may be due to the fact that those renting tend to be farmers concentrating on tomatoes rather than other crops.

Table 5.1 Land tenure for present or most recent tomato farm in study villages

	Tano Boase	Pamdu	Techi- mentia	Tanoso	Akete	Kokoago	Total
Number interviewed	20	20	40	28	27	24	159
Percentage renting	20.0%	35.0%	50.0%	10.7%	3.7%	20.8%	25.8%
Average size of rented farms (acres)	1.1	0.7	1.6	1.3	1.0	1.0	1.3
Average size of all farms (acres)	1.2	0.6	1.2	1.0	0.5	0.6	0.9

Table 5.2 Land tenure for present or most recent tomato farms according to gender

	Women	Men	Total
Number interviewed	46	113	159
Percentage renting	21.7%	27.4%	25.8%
Average size of rented farms (acres)	1.1	1.4	1.3
Average farm size (acres)	0.7	1.0	0.9
Average rent per acre per season (Cedis)	18233	25980	23841

Note: In November 1997 £1 was 3800 Cedis.

The rental period for vegetable farms is usually three months, but some farmers may rent larger areas for rainy season production for up to three years, for all their crops, with only a small part of the land being given over to vegetables. The rent is paid

depending on where they originated from. Those who come from ethnic groups close to the Akan tend to have better access.



before production starts and, for the more desirable land, farmers have to pay many months in advance to reserve it. The cost depends on the agreement with the landlord and varies dramatically with the terms of these contracts depending on both the social relations built between parties and their relative bargaining power. Some non-indigenous settlers, especially those from the north, claim that they have to pay higher rents than indigenous people. Women appear to be paying lower rents but this may be due to the lower rents in those villages where there are more women farming tomatoes, or the lower quality of the land women farm.

In a very few cases, farmers were found to be entering into share cropping agreements for the use of land. In these cases the farmer will take two thirds of crop sales and the land owner will take one third. This is referred to as *abusa*. This system evolved with, and was a central part of, the remarkable indigenous growth of the cocoa industry in Ghana. The system has confounded many economists over the years as the integration of farmers into the economy has not resulted in increased landlessness and renting as might be expected in a change to capitalist production relations (Hill, 1963; 1970; Robertson, 1982). *Abusa* is not as common amongst tomato farmers as amongst producers of other crops, especially maize, as tomato farmers prefer to rent the land. In an *abusa* arrangement, the value of the amount shared with the land owner may be several times higher than the rent. However, this will depend on the size of the harvest and the market price; the land owners will also share the risk of crop failure. Farmers prefer *abusa* to labouring on other people's farms as they can have a higher income if they are successful, there is less employee control and they can combine it with being a labourer at other times. Those doing the farming tend to be young men who do not have land or capital to start themselves. There is also sharecropping with the additional provision of capital, rather than just land. This is discussed in section 5.3.4.

5.3 Access to finance for production

There is a wide range of financial sources drawn on by farmers for financing tomato farms. This is a sensitive issue about which it was difficult to collect information

through questionnaires. Therefore, the questionnaire survey did not attempt to find the extent and importance of each source. Finance is based on a range of ties, from the very local to more distant sources such as traders. According to interviews with farmers, their most important source of finance is from their own farming and non-farming activities. Farmers will also plan their cropping calendar around the financial needs of the more costly crops such as tomatoes. Those receiving loans rely on non-bank sources. This study did not look at loans for non-agricultural purposes, although these activities were found to be closely interlinked with agricultural production and marketing in the farmers' livelihood strategies.

5.3.1 Loans from private individuals

Farmers can receive loans from other villagers. The most common source is from husbands or wives who have savings from their own farming or other employment. In such cases the farmer can give them some extra money after a successful harvest or use the profit of the farm to finance their spouse's business. Loans often come from uncles in the *abusua* (matrilineal kinship group) who are under obligation to assist their 'children' (nephews and nieces) with soft loans. Money can also come from other individuals in or connected to the village. The survey of tomato farmers found that 39% of farmers were giving loans (see table 5.3). It was not possible to collect details of loans received from other people as there is a social stigma attached to admitting this.

To get loans, the farmer must know the person giving the loan personally, so this limits the ability of farmers in remoter, poorer areas to obtain loans. The people giving loans tend to be richer farmers, salaried workers such as teachers, traders and those who have received loans from the bank. These individuals have advantages over formal lending institutions as they have the information on the borrowers and can enforce repayment (Aryeetey, 1992:5). This can open up opportunities for severe exploitation, although the extent of long-term indebtedness could not be examined in detail in the study.

Table 5.3 Farmers' loans to other farmers in the past year.

Size (acres)	Number of farmers	Percentage of farmers giving loans	Average amount given in Cedis
<0.5	7	0%	0
0.5	28	43%	37667
0.6-1.4	25	44%	52909
1.5-2	10	40%	220000
> 2	10	40%	145000
Total	80	39%	80452

Note: Tano Boase, Techimentia and Pamdu only.

The study found three cases of tomato farmers on-lending bank loans, and two of these were loans given by banks for maize farming. Tomato farming can be much more profitable than maize production when there are good production conditions and market prices. This has been reported in other countries as well as in Ghana, although in most cases those getting bank credit cannot admit to the bank that they are on-lending (Aryeetey, 1992:21-22).

There is a long recorded history of lending in southern Ghana. Rural lending increased with the expansion of cocoa and oil palm as farmers could mortgage their plantations (La Anyane, 1963: 64; Dunn and Robertson, 1973: 49; Becket, 1944). In such cases the owners became tenants to the money lenders for a fixed period of time⁵. There are no cases of mortgaging crops other than cocoa as they are not such fixed assets and farmers cannot mortgage land as they may only have the usufruct right to it, rather than clear ownership. Furthermore, for tomato farmers there is a

⁵ Opoku-Owusu (1971: 2-3) states that "the very strong antagonism by the state and public against money lenders in Ghana currently derives from the very sharp and nearly always unkind practices adopted by the money lenders". (Debrunner (1959:69) documents the indebtedness of cocoa farmers to brokers of European firms: "This wretched advance system is an evil heritage from the slave trade". However, Hill (1986: 84) questions the attitudes of the officials to debt and argues that credit is a sign of a lively economy.

high risk of production failure (pests, drought or excessive rainfall) or lack of a market during gluts. The interest payments on the loans are variable and can be renegotiated after a bad harvest. In such cases the interest can be reduced and the repayment delayed until the next harvest or another crop is ready. Farmers giving loans were not willing to give details on the interest payments they expected to receive.

5.3.2 Loans from banks

The formal financial sector consists of commercial banks (such as Ghana Commercial Bank, Standard Chartered, Barclays, Social Security Bank), development banks (such as the Agricultural Development Bank) and rural banks (locally managed banks that are guaranteed by the Bank of Ghana). The rural banks were set up in 1976 and by 1995 there were 125 in Ghana. There are also semi-formal financial institutions such as credit unions. The survey found that only 5% of farmers were obtaining bank loans, which supports the finding of Amanor (1993) that only 8 % of his sample of farmers in Wenchi District had loans from the bank. This study found a range of cases where loans for maize production were being diverted to tomato production, which was seen to be more profitable. Banks are unwilling to lend to tomato producers because it is a high risk crop.

Banks are reducing the number of loans they give to small scale farmers as the repayment rates are very low and, they claim, there is much diversion of money away from the stated purpose. The low repayment rates occur because bank loans are seen as gifts from the government due to previous programmes that concentrated on reaching disbursement targets with little concern for collection. Despite a range of government programmes to support the growth of rural banks, they have not delivered the expected benefits to poorer farmers (Aryeetey et al, 1994: 29). Now most of the banks' loans are given to non agricultural operations or to government workers whose salary passes through the banks (Jones et al, 1997).

The difficulties of lending to resource poor farmers with very little collateral has been a problem experienced in all less developed countries (Hulme and Mosley, 1996). It was highlighted by Brown (1972: 67) in his discussion of the risks of lending to those without tangible assets. Alternative models of credit delivery have been successfully developed that use groups and the trust that exists between members to ensure repayment. These approaches model their structure and draw on the success of cases in south Asia, most notably the Grameen Bank of Bangladesh. The International Fund for Agricultural Development (IFAD) Smallholder Credit, Infrastructure and Marketing Project (SCIMP) was modelled on such a micro-finance institution and has been operating for several years. It has only helped a very small number of tomato farmers since it concentrates on maize farmers.

The SCIMP project covers parts of Brong Ahafo, Ashanti and Volta Regions and is channelled through 11 rural banks and branches of the Agricultural Development Bank, with local NGOs responsible for group mobilisation and education. To date 30,000 farmers have received credit at least once, although there is low repayment. These rates vary with poor repayment in Brong Ahafo, where it is only 62%, while in Ashanti region it is 85% (details collected from SCIMP files, October 1997).

Further problems of this system relate to the ways in which groups make fellow members repay their loans when in difficulty. Without the possibility of declaring bankruptcy, the collapse of small enterprises has the potential to force people into considerable debt as they are forced to sell key livelihood assets or owe large amounts to other group members (Lyon, 1999a).

The restrictions on getting a bank loan include the time and cost of the application procedures, the requirement to have saved there for some time and the need for two guarantors who draw their salary from the bank. This restricts access for poorer farmers, especially women and 'strangers'. For larger quantities they need collateral such as a car or a house. The difficulty in assessing ownership of farm land restricts many farmers from using land as collateral as banks do not recognise their usufructary rights and cannot use the threat of repossession of land in case of default.

Compared to loans from other sources, there is less flexibility with bank loans and a long procedure for getting loans that can delay the loan until it is no longer needed. Farmers also complain about the high interest rates, although, at 42% per year (as of October 1997), these are lower than many of the informal sources of finance and have to be seen in the context of a high and varying rate of inflation. The ability of the rural banks to give loans is further hampered by the mismanagement that has been reported in a very large proportion of them, as this erodes the confidence of savers and encourages them to save elsewhere.

5.3.3 *Susu* collectors

Susu collectors manage informal saving systems and they also give a limited amount of credit in the form of advances. There is a range of systems in Ghana with similarities to the rotating savings and credit organisations (ROSCOs) found throughout the world (Ardener, 1995; Bortei-Doku and Aryeetey, 1995; Steel and Aryeetey, 1994; Lyon, 1999). The rotating *sususu* tend to be smaller with one member responsible for organising the daily or weekly collections which are given to a different member each week. The other form of *susu* involves an individual who sets up the *susu* as an enterprise. They collect daily deposits from the work place of the saver and then give a lump sum at the end of the month. The deposit is the same each time and each month the collector takes one day's deposit as a fee. No interest is given on these savings. This is the preferred form of saving as it is very easy to deposit and withdraw.

The depositors are usually female traders, although many male and female farmers also save with *susu* collectors. Collectors set themselves up as a business and print savings cards. Individual collectors are well known in the communities where they work and have to build a reputation so that they are trusted. The *susu* collectors interviewed were all men which is a common finding throughout Ghana; Aryeetey (1992: 26) found that only 16 of the 151 *susu* collectors interviewed in his survey were women. Two of the collectors in my survey had shops in the town and two of

them also held important positions in their village. One had also built a smart office and a house to show that he was settled and would not run off with the money. There have been many cases of *susu* collectors disappearing. The Ghana Cooperative *Susu* Collectors Association has been established to register collectors and reduce this risk, although none of the collectors interviewed referred to it.

Susu collectors of the monthly rather than rotational system, give credit to increase the amount saved and to attract new customers. One collector uses the credit as a way of both keeping saving customers and building trust. The credit given is only a small proportion of the money deposited with them as clients could withdraw their money at any time and the collectors have to protect their reputation by always being able to dispense savings. The *susu* collector in Derma village reported that he does not use any of the contributions for lending, preferring to use his own money. The loans will usually be up to one month's contribution and the money will be repaid in daily contributions in the following month. *Susu* collectors only give loans to those whom they trust to continue saving with them. There were no cases of *susu* collectors acting as intermediaries of banks as the links between the informal and formal financial sectors are limited (Aryeetey, 1992: 29; Sakyi-Dawson et al, 1997; Steel et al, 1997)

Table 5.4 Details of *susu* collectors interviewed

<i>Susu</i> collectors	Number of savers	Average daily contribution (estimate)	Number of contributors who borrow money	Total lent at one time
Ricaman <i>Susu</i> Co.	306	C1500	50	C2,250,000
Mensco <i>Susu</i> Co.	200	C2000	15+	C900,000 est.
Manso <i>Susu</i>	80	C1500	10	C450,000 est.

Note: These *sususes* were monthly withdrawals rather than the rotational system.

5.3.4 Sponsoring and share cropping

Those with no capital can enter into tomato farming by being ‘sponsored’ or doing *ye ma yenkye* (let’s do and share). One person provides the money for land and chemicals while the other will do all the labouring. The crop at the end will be shared. This system has evolved out of other share cropping systems that have become established for other crops, most notably cocoa (Robertson, 1982; Hill, 1956; 1963). The management decisions tend to be made by the person doing the labouring, so it is more a way of financing agriculture than a form of labouring and being paid after harvest. Farmers use this as a way of getting finance for farming while sharing the risk of failure. If the crop fails they will not be in debt. However, if the crop is successful they will end up sharing a far greater amount of money with the sponsor than if they had borrowed the money.

The financiers like this form of contract as it requires less monitoring of labourers and allows them to have income while reducing the risk of having one farm. Only one farmer considered this as a form of exploitation, as there are no other sources of capital available to these farmers and they cannot afford to take the risk of failure. Two of the input sellers had large numbers of share croppers, one having 12. Some financiers start farms at different times with different share croppers in order to reduce the risk further.

Those providing finance are the richer members of the community such as salaried workers, traders, input suppliers and rich farmers. Some farmers were found to be using the loans from the bank that were given for maize production. Farmers with irrigation pumps can enter these agreements with people who cannot afford to hire the pump during the production period. It is also popular with farmers who do not have the money to hire labour and cannot do the work themselves:

“I spent a lot of money on my sukan (early rainy season) farm and lost almost everything. So I wasn’t having much money to do adantem (late rainy season) on my own. I asked a Dargarti man to do a farm with me and share the proceeds” (Faustina Brenya, Dwomo farmer, Interview 25)

Other share cropping agreements were found when farmers had cleared and prepared a large area to farm but could not use it all:

“It was my own farm but after all the tasks had been completed I gave about half to my good friend to be managed by him. The proceeds were shared into two” (Charles Opoku, Tanoso farmer, Interview 28).

The farmers providing the labour are all young men who are well known to the sponsor. They are often family members or someone who lives in the same house. The sponsor knows them to be hard working either by having used them as labourers in the past or by asking others:

“Farmers come to ask me and I get more requests than I can sponsor. I tell them to wait a week and I do investigations without the farmer knowing. I go to the family house and I ask others about the farmer” (Addae Boakye, Agro-chemical seller, Bechem, Interview 4).

The sponsor and farmer will agree on the contract before production starts and fix how they will share the harvest. The sponsor will provide all the chemicals and can also provide money for other aspects such as hiring land, clearing the land, buying cutlasses and boots, hiring spraying machines and even some money for food for the farmer. The extra spending usually happens when the farmer is a family member.

Several forms of contract were found. They follow similar contracts that exist for the share cropping of land for cultivation of maize, cocoa and cassava. Maize is often sharecropped using *abusa* where the owner gets two thirds and the caretaker farmer gets one third. Cassava is sharecropped using *abunu* where the proceeds are shared equally. In each case the land owner only provides the land. The range of contracts for tomato production are given in table 5.5.

The amount of money taken by the sponsor depends on the harvest, with some willing to reduce the amount they take if there is a bad harvest, especially if they are working with a family member. Some sponsors also allow the farmer to take the first harvest without sharing it.

Table 5.5 Contract form in sponsoring

Contract form	Description
<i>Abunu</i> after subtracting costs.	Sponsor subtracts chemical costs from harvest proceeds and then divides remaining proceeds into two. Sponsor provides land, boots and cutlasses.
<i>Abunu</i> without subtracting costs.	Sponsor buys chemicals and hires land. Harvest shared between two and sold separately.
<i>Abunu</i> after subtracting half of costs.	Sponsor will deduct half of costs from proceeds and then divide the rest of the money into two.
<i>Abusa</i> after subtracting costs.	Sponsor pays for labour for clearing and ridging, and buys chemicals. Farmer weeds it and tends it. After deducting sponsor's costs from the harvest proceeds, divide into three and sponsor takes one third.
<i>Abusa</i> before subtracting costs.	Sponsor provides land and buys chemicals. Harvest proceeds divided into three and farmer pays sponsor for chemical costs out of his two thirds.
<i>Abusa</i> for two farmers and a sponsor with an irrigation pumping machine.	Sponsor pays for chemicals and has a pumping machine. Subtracts cost of machine and chemicals from proceeds and divides the remainder into three. One part to the sponsor and one part to each of the farmers.

The sponsors have little involvement except when applying agro-chemicals, as the farmer can sell the agro-chemicals and claim that the farm has been damaged by sun or rain, and at harvest time when there is a risk that the farmer will harvest without the sponsor knowing and not share the proceeds.. Therefore the sponsors need to monitor the work and know about growing tomatoes themselves. Farmers are required to tell the sponsor when they will be harvesting and the sponsor may send a family member to harvest with them to check that none of the harvest is diverted. Sponsors also rely on farmers in the surrounding areas to inform them when the farmer is harvesting and report to the sponsor. One chemical dealer who is

sponsoring several farms collects the boxes with the farmer so that he knows how much has been harvested.

When the farmer breaks the agreement there is little that can be done:

“I harvested once without informing them and was sent to some elders. I had to apologise and give some drink as compensation” (Mallam Muniru, Dagarti farmer, Tanoso, Interview 38)

“My farmer harvested and did not tell me, but others saw him ... I did not get him arrested because I did not want to get a bad name” (Agya Yeboah, Derma farmer, Interview 22)

However, the farmer may suffer because of the damage to their reputation and the difficulty in obtaining sponsorship in the future.

5.4 Access to trader credit

The marketing system plays an important role in shaping tomato production patterns and activities. A central part of marketing activities for both farmers and traders is the creation of customer relationships. These will be discussed in greater detail in the next chapter, but one aspect of these relations is the provision of credit to farmers.

5.4.1 The extent of trader credit

The number of survey farmers benefiting from credit from traders is shown in the tables 5.6 and 5.7. There has been a long history of trader credit in Ghana's major cash cropping areas. The cocoa middlemen were particularly active in the colonial period and Becket (1944: 35) found that 32% of farmers received credit and this accounted for 19% of the total cocoa output of the area. Nyangteng and van Apeldoorn (1971: 104) also recognise the extent of trader credit and its advantages over banking institutions in terms of ease of administration and timeliness.

Table 5.6 Credit from traders

	Number interviewed	Percentage of farmers receiving credit
Men	113	13.3%
Women	46	4.3%
Size of farm		
estimate in acres		
< 0.5	23	13.0%
0.5	52	13.5%
0.6-1	42	9.5%
1.1-2	18	0.0%
>2	8	12.5%
Don't know	16	12.5%
Total	159	10.7%

Table 5.7 Farmers receiving credit from each village

	Number interviewed	Percentage of farmers receiving credit
Tano Boase	20	15.0%
Pamdu	20	15.0%
Techimentia	40	0.0%
Tanoso	28	7.1%
Akete	27	29.6%
Kokoago	24	4.2%
Total	159	10.7%

The farmers have to be able to build up close working relations with the traders and so this restricts farmers who have only been growing for a short time. A larger proportion of men were found to be receiving credit. The traders perceive men to have a lower risk of having a poor harvest. They claimed this was due fewer labour

shortages as men can do more of the tasks themselves and have fewer obligations to farm other crops.

There are more customer relationships in some villages than others. The average proportion of farmers receiving credit from traders was found to be 11%, although in the village of Akete in Wenchi District 22% received loans from buyers. A survey in Domasua near Sunyani also found that 22% of tomato farmers obtained loans from the tomato traders (Asomah, 1990). Amanor (1993) found that only 4% of farmers of all crops in his survey in Wenchi obtained loans from traders, which suggests that these forms of contracts are more common for tomato farmers.

The number of farmers receiving credit from traders in Akete village is higher than elsewhere, due to the lack of any alternative finance there. Traders are less keen to give credit in those villages with many traders coming to buy because there is more competition and a greater chance of the farmers selling to other traders. This is more of a problem when there are Accra traders buying in the village at the same time, since they tend to offer the farmers higher prices. The lack of competition in less well known villages also allows the traders to have greater bargaining power. There is only a small number of farmers receiving trader credit in Kokuago because they do not have close links to the traders.

Larger scale farmers appear less likely to receive trader credit. This may be due to the fact that there is less trader credit in Tanoso and Techimentia where the size of tomato farms is double that of Pamdu, Akete and Kokoago. However, Tano-Boase has a high average farm size (1.2 acres) and high proportion of farmers receiving credit.

Sixty-five percent of traders interviewed reported that they extend credit to farmers, but the number of customers, and the amount given at one time, differs between markets. This can be seen in tables 5.8 and table 5.9. The small number of Accra traders interviewed reported an average of 9.3 customers in the past year and an average total amount given at one time of C1,770,000. The traders in the district capitals give to an average of 5 farmers, which is much more than those in Kumasi

markets. However, the average amount of money given to all farmer customers by traders in district capitals is smaller than the amount given by traders in bigger cities because the traders do business on a smaller scale. Smaller traders are restricted in giving credit by the shortage of capital (*dwetire*) and the high costs of trading operations:

“At first I used to help some farmers but now the transport costs are so high so there is not enough profit to help them. I also have 8 children so no money for other things” (Ama Mansa, Brong Trader, Tanoso, Interview 4).

Using a rough estimate of the number of different types of traders buying in Brong Ahafo and selling in the different markets, it can be estimated that the total credit from traders to tomato farmers at one time is perhaps C162,000,000. The Accra traders also reported that they give large amounts of credit to tomato farmers in Ada (Greater Accra Region) and in Tono, Bolgatanga (Upper East Region).

Table 5.8 Number of farmer customers receiving credit from traders in the past year

Number of customers	Small towns 16 interviewed	Kumasi Central Market 12 interviewed	Asafo market, Kumasi 4 interviewed	Accra: 31st December/ Agbogbloshi 5 interviewed	Total 37 interviewed
0	31.3%	33.3%	25.0%	20.0%	29.7%
1-5	43.8%	50.0%	75.0%	0	43.2%
6-10	12.5%	16.7%	0	40.0%	16.2%
11+	6.3%	0	0	20.0%	5.4%
Don't know/ Unwilling to answer ⁶	6.3%	0	0	20.0%	5.4%
Average number of customers per trader	5.0	2.7	3	9.3	4.6

⁶ Some traders were not willing to discuss details and claimed that they did not know the answer. Therefore the category of don't know and unwilling to answer are combined. This issue is discussed in chapter three.

Table 5.9 Average amount each trader gives to all customers at one time

Amount given (Cedis)	Small towns 16 interviewed	Kumasi Central Market 12 interviewed	Asafo market, Kumasi 4 interviewed	Accra: 31st December/ Agbogbloshi 5 interviewed	Total 37 interviewed
0	31.3%	33.3%	25.0%	20.0%	29.7%
C1-200,000	31.3%	25.0%	50.0%	0	27.0%
C201 -500,000	18.8%	16.7%	25.0%	0	16.2%
C501-1,000,000	12.5%	0	0	0	5.4%
C1,001-1,500,000	0	8.3%	0	40.0%	8.1%
More than C1500,000	0	0	0	40.0%	5.4%
Don't know/ Unwilling to answer	6.3%	16.7%	0	0	8.1%
Average	C224,000	C239,000	C163,000	C1,770,000	C449,000

5.4.2 Lending and repayment procedures

Traders do not always give cash directly to farmers. Some Accra and Kumasi traders will lend to farmers or traders who lend on to other farmers whom they know in the village:

“I have three farmer customers at three villages. They assist me in purchasing tomatoes from other farmers in the village. I gave C800,000 to one customer to be given to five other farmers” (Akosua Boatemma, Ashanti trader, Kumasi, Interview 44).

Some traders prefer to give inputs to farmers or will act as the guarantor for when farmers receive goods on credit from the agro-chemical dealers. In the latter case, both farmer and trader go to the agro-chemical seller when the inputs are purchased and both go when the farmer repays. Traders also help many of the farmers with seed. Traders are an important route for the dissemination of new varieties and they will give seed to farmers in order to improve the quality of the crop (Lyon, 1997b).

Traders will be repaid after the start of the tomato harvests. The trader knows when the harvest should start so will come at that time. Some farmers send messages to the traders telling them to come. Tomatoes are harvested between one and three times a week over several weeks. Therefore there is a number of forms of repayment as shown in table 5.10.

Table 5.10 Forms of repayment

Form	Description
Near the beginning of harvest	Farmer pays off loan after first few harvests.
In instalments	Farmer pays part of the loan back each harvest.
At end	Trader pays the farmer for each harvest and then the farmer repays the loan with cash when all the harvests are finished.
At end after selling on credit	Farmer gives harvested tomatoes to the trader and collects money when they have settled the balance after the last harvest.

Traders can fail to obtain their money if the farmer sells the produce to another trader or 'runs away'. This is the reason given by those traders who choose not to have customers. However, the most common reason for failure to pay on time is crop failure. In such circumstances, the traders may give again so that the farmer can make another farm:

"I gave C3 million to farmers in four villages ... they are yet to complete paying due to poor yields last year. When the harvest is poor you have to give an additional amount before you can be paid back." (Comfort Ouao, Ga Trader, Accra, Interview 42)

The flexibility of these loans and the ease with which they are renegotiable in times of trouble are the main reasons for the preference many farmers have for trader credit. This was also observed by Becket (1944: 36) who reported that interest was reduced by half and new loans given when a cocoa farmer was in difficulties.

These contracts are not backed by any formal documentation. This section examines how the traders know that the farmers will repay them and how they select those farmers they are going to lend to. Traders can use their existing networks in deciding who to lend to. The best established network is the community in which they live, and their relatives. The traders living near the producing areas often had more of these links:

“We have lived in the same house for one year. He [the borrower] later moved to Nkansia to farm there ... each time he harvested he came for our boxes and a year later he came for a loan” (Yaayaa Mame, Mo trader, Wenchi, Interview 18).

As existing networks are restricted to kinship links and knowing people in the same community, most traders develop customer relations built on long term trading links. These links will allow the trader to build up information about farmers and their capacity to produce tomatoes:

“Before I give a loan to a farmer, I look at how often and regular he produces and sells to me, how trustful he is and the quantity he can harvest at a time as a measure of his ability to repay” (Cecilia Asamoah, Ashanti trader, Kumasi, Interview 37).

They may also learn where the farmer’s house is so that they know where to go to get the money. Many traders visit the farm to see the size and to check that they are really going to start a farm and not divert the money. However, this will give them confidence in the farmer’s ability rather than trust in their actions:

“I do not help anyone I do not trust. Some traders go to look at other people’s farms and help them if they find the farm to be good but I do not do that” (Afua Adisa, Ashanti trader, Kumasi, Interview 25).

Through long term interaction with the farmers, they decide who can be trusted:

“Before I help a farmer, I know he is a customer who will not hide his tomato from me and sell to others when it is scarce and prices are high. I study the farmers for a long time and know those who sell to me throughout the year” (Nana Adwoa, Brong trader, Wenchi, Interview 16)

“Before you give a farmer money, you have to know his work, his life. Some speak the truth and others do not. So you have to work with him for some time” (Yaayaa Mame, Mo Trader, Wenchi, Interview 18)

Traders can also test farmers with small amounts to start with and then reduce the numbers when they know whom they can trust :

“You know who is bad as you give to them first time and they do not repay you” (Lydia Beyaa, Dagarti trader, Wenchi, Interview 11).

“At first I used to give to most customers but now I give to the very few who are truthful” (Stella Konadu, Ashanti trader, Kumasi, Interview 38).

Trust can be built out of long term relationships with each side reciprocating. Traders will therefore lend to farmers who have given to them on credit or who have asked the traders to keep some of their money from sales before collecting it at a later date.

“I first gave to him three years ago. When he came before (to sell tomatoes to her) he would leave money with me before he came to collect it so I detected that he was good” (Nukumu Adua, Brong Trader, Techiman, Interview 24).

In many cases the trader-farmer relationship goes beyond that of business into further social ties. Farmers and traders may send gifts of food stuffs to each other and visit each other when one of them is sick or when a close relative is sick. In one case a farmer had sent his daughter to stay with his trader customer:

“My customer (a trader in Accra) has been so good to me that for the past 5 years, my daughter, born in 1982, has been staying with her as a house help and she pays for her education” (Agya Yeboah, Derma farmer, Interview 22).

“In the fupe (season) I got a loan from my customer ... I work with the traders but it depends on trust. They (the customers) know me and they have trusted me. They know my mother and have friendship. Any time they come to Techimentia to buy they will pass here to say hello even if they are not buying here. They bring food and bread to my mother when they come. When I am less busy I go to stay with them for 2-3 days in Accra” (Kwabena Twum, Derma farmer, Interview 12).

A final way of building trust is through the use of guarantors and witnesses. When a farmer who is not well known to the trader asks for a loan, the trader may ask them to find an ‘*agynamu*’ or intermediary known to both of them. They can also play a role as guarantor in case of default, witness to a person’s character or simply witness to the deal. This allows the trader to lend money in areas where she does not know the farmers:

“When I give money, I go to the chief and I have an agynamu - he knows the farmers well ... he is my sisters’ husband” (Effia Afiefie, Brong trader, Techiman, Interview 23).

5.4.3 Costs, interest payments and the extent of ‘exploitation’

Many of the traders charged an implicit rate of interest by offering a lower tomato price to the farmer than the farmers could get from other traders. However, the wide variation in prices in one village each day means it is difficult to calculate how much less the farmers are paid.

Once a farmer has taken credit from the trader, they are in a much weaker bargaining position. The traders will request a lower price and the farmer will have to agree :

“I got C350,000 from a Derma trader settled in Kumasi. When helped, the trader will base the price she gives me on her starting price rather than the village price” (Kwabena Amankwa, Derma farmer, Interview 10).

“I got a loan of C25000 and paid at harvest. The price was the same as other traders but my customer (a trader) came to beg me to reduce the price for her by C5000 per box each time”. In this case the farmer lost C55,000 through selling to this trader rather than others (Obour Johnson, Tanoso farmer, Interview 9).

The traders justified the reduced price by claiming it is a sign of appreciation from the farmers receiving assistance in starting the farm:

“Some farmers try to be nice and offer C1000 less for the boxes. When Accra traders come with a higher price, some farmers who are customers will let me buy half of that harvest at the lower price. Farmers recognise that I have helped them so they have to help me” (Ama Boahema, Brong trader, Tanoso, Interview 1).

“We do not take extra money from the farmers when we give them loans because they sell their produce to us. They try to reduce the price for each box by say C2000 because we have helped them” (Yaayaa Mame, Mo trader Wenchi, Interview 18).

“After harvesting, she deducts the money she gave me from the total sales and then give the rest to me. I then give her something from my heart in appreciation for the good done to me” (Ayenim Boateng, Akete farmer, Interview 3).

While the amount to be given to the traders is at the discretion of the farmers, they may be forced to give in order to secure credit for the following year. Some farmers also reported that they reduced the price when the traders claimed they had made a loss on the previous trip.

Traders selling in the smaller markets always pay lower prices than the traders coming from larger urban centres, especially Accra. When farmers have obtained loans from these traders they are committed to sell at these lower prices, although the option of selling to other traders may not always be there. These traders give the loans to ensure that they can keep customers who will sell at a price that allows them to sell in the smaller markets. Many farmers are forced to take these loans if they want to go into tomato production as they have no other sources of money. This was found in the village of Akete where the number of farmers obtaining loans from traders is higher than elsewhere and they sell a larger proportion of their harvests in the nearby market of Wenchi than neighbouring villages do:

“Other villages make arrangements by going to Accra and Kumasi. Here they can do it but each farmer has a different customer in Wenchi who gives money. If they stop selling in Wenchi then the traders will not give money” (Musa Yaya, Akete farmer, Interview 11).

This shows that obtaining a loan does not necessarily mean less bargaining power because the traders lend to individuals with low bargaining power already. This supports the hypothesis of Poulton et al (1997), that interlocking is more likely to occur when there is more market control, few marketing channels and no alternative credit sources.

The actual cost associated with selling to customers at a lower price depends on how much of the harvest the farmer has agreed to sell at the lower prices. In most cases of traders giving credit, the farmer is supposed to give all the produce to the trader or as much as the trader can buy:

“The farmers give me all that I have the strength (ahoɔden) to buy. If there is more I will tell other traders to buy” (Akosua Kromo, Brong trader, Wenchi, Interview 12)

The customer relationships are not completely binding and the farmer is not always tied to accepting the traders’ price irrespective of other offers. Under many agreements, if a better price is offered then the farmer can accept it while reserving some of their produce for their regular customer. Some traders allow the farmer to sell to other traders once the farmer has asked for permission:

“Some long distant traders come and pay more. The farmer sends a message to me (in Techiman market) and I can say that I will buy for the same price or they can sell it to the Accra traders” (Madam ‘Ernest Senior’, Brong trader, Techiman, Interview 15).

“When Accra people come with higher prices, I inform her (the trader) but if she does not offer me this higher price, I divert a portion to the buyers from Accra and give her a small portion” (Agyemin Boateng, Akete farmer, Interview 3).

Farmers may try to sell secretly, especially if the trader who gave credit is not from the same village.

As well as selling at a lower price some traders demand some boxes of tomato in addition:

“Each time they harvested, the traders want to buy at a lower price ... 2-3000 below the village price ... and for every 10 boxes they take 2 as interest”
(Samuel Adjei, Tuobodum farmer, Interview 2)

There are a wide range of costs of getting credit from traders, as some traders use credit to guarantee supplies while others use it as a way of reducing the price and increasing their profit. Clough (1981: 277) and Watts (1987:89) describe similar systems of advances in northern Nigeria for obtaining cheaper grain. As mentioned earlier, the number of farmers having to repay extra and the amount the farmer loses is hard to calculate because there is a range of prices in the village. Many traders stated that they give to farmers to assure themselves of a good supply and did not mention the lower prices. The survey identified 13 cases where actual figures of interest rates could be calculated. These are still estimates as there may have been other costs and gifts involved that were not reported. For the three month period, the implicit rates of interest range from 6% to 220% while half of the figures reported are in the range of 20-25% for three months which gives a rate of 107-144% for one year. The range of costs for farmers and the contracts they enter into depends on their bargaining power vis-à-vis the traders.

The extent to which this is exploitation depends on the actual cost of providing credit to farmers and the ability of the farmers to move into other less capital intensive crops if they want to. Calculating the cost of providing credit could not be done in this survey. Banks reported that they were not willing to lend to small scale agriculture because of the costs in collecting money and the risk of crop failure, which indicates that the official rates of interest did not cover their costs.

Studies elsewhere have found that traders can trap farmers into servitude. Elmekki and Barker (1993:70) quote surveys in Sudan that show that 75 per cent of peasants were indebted to *shail* lenders. Verduissje (1984) refers to the Ghanaian fish traders who keep fishermen in long term dependency by extending credit and Ouedraogo (1983, quoted in Saul, 1987:86) gives evidence of the advanced grain sales that trap farmers. Bhaduri (1986) refers to the term “forced commerce” when producers in eastern India are indebted and tied to one trader, and Janakarajan (1993) gives

similar examples from South India. The lack of resources can lead to a mechanism where producers have to increase their wage labour and debt:

“the longer the period of wage labour, the less the possibility of working on their own land, the lower the yield on self cultivated fields, the greater the deficit, the greater the need to sell at harvest and buy preharvest, the greater the need to work as wage labour, migrating seasonally if necessary” (Harriss, 1982:44, drawing on the work of Clough in northern Nigeria).

The extent of exploitation depends on how the repayment system is organised, whether farmers are forced to take out loans, and the competition amongst buyers. In the study area there were no cases of the quantity of tomatoes being set in advance. This is too risky for the traders as the prices fluctuate. It is common amongst farmers in Ghana receiving loans for maize and, as Elmekki and Barker (1993: 70) found in Sudan, it opens up the opportunity for exploitation:

“borrowers mortgage their cash crops to lenders in advance of harvest time. The crop is valued at a price as low as 20 percent of the market price of the crop at harvest time”.

Farmers selling staple crops can also be forced by traders into distress sales when the price is low rather than storing the crops until the price. However, farmers selling perishable crops have very little choice of when they sell.

Richards (1990:275) in his comparison of coping strategies in Sierra Leone and Nigeria questions whether hungry season loans-in-kind result in usurious interest rates or production benefits. Taking a ‘production’ perspective, as opposed to the ‘distribution’ perspective followed by Clough (1981) and Watts (1983), he concludes that the input-output ratio of crop production means that the producers are better off taking the loan and it is not considered as usurious. This conclusion may relate more to his case study area and assumes that the producers have a choice of lenders and are not tied to one merchant.

Clark (1994:243-5) found there was little evidence of farmers becoming dependent on distress sales and pre-harvest food purchases in Ghana. This is linked to the large number of trader channels in the market system and the inability of the Kumasi

market traders to manipulate relations and set up an oligopolistic system. She states that:

“for dependency to become exploitation, asymmetries in the relation would have to give the dominant customer the ability to control the terms of the transaction, establishing a patron/client relationship” (Clark, 1994:239).

However, patron-client relationships need not be exploitative. In many cases, there are seasonal reversals in credit as farmers who had received credit from traders earlier in the season were later giving produce on credit to their customer traders. This is discussed in section 6.5.

5.5 Access to labour

Tomato production is a very labour intensive activity with only minimal mechanisation: the main activities are listed in table 5.11. Most farmers rely on their own or family labour except for the harder tasks such as clearing, ridging and weeding. However the difficulty of the tasks means that, as some farmers grow older, they move to other crops that need less work. Other farmers try to reduce the labour bottlenecks by spreading the planting and have several crops in relay. Those with physical strength can therefore reduce their costs and farm a bigger area. This is another factor that reportedly limits the size of women’s tomato farms.

Family labour is usually used for transplanting and harvesting, and those who can call on family members to work on their land are at an advantage. The farmer will pay something, or give a gift at the end of the season, if labourers are not part of the immediate family. Wives and children may work on a husband’s farm. The husband usually controls the income and the wife is given a gift in kind or money. This often leads to friction and wives setting up their own farms if they have the resources. However, this is not possible for women from ethnic groups originating in the north of Ghana because of cultural restrictions. In villages where there are few traders visiting and very poor roads, such as Kokoago, the family members (especially the women) carry the produce six kilometres to the nearest market. Older women can rely on labour from adult sons for more demanding tasks like clearing and ridging.

Married women can often rely on their husbands for clearing the land, especially if some of the crop or proceeds of the sales will be used for home consumption.

Table 5.11 Labour activities

Task	Twi word	Type of labour commonly used
burning and clearing	<i>adɔ</i>	hired/own
collecting debris after burning	<i>apam</i>	hired/own
stumping/uprooting grasses		hired/own
making ridges	<i>nkɔfie</i>	hired/own
transplanting		own/family
watering after transplanting and in dry season		own/family
applying fertiliser		own/family
re-mounding/re-ridging around each plant	<i>mmoɔgho</i>	hired/own
weeding (not necessary if re-mounding done)	<i>adɔ</i>	own/family
applying chemicals		men use own and women use sons
harvesting		own/family/hired
carrying harvest		own/family, hired when full crates

Cooperative *nnoboa* labour arrangements are still very common amongst both male and female vegetable farmers and have been widely reported in the anthropological literature covering West Africa (Arhin, 1983:472; Saul, 1983; Richards, 1986:70). Some studies found it to be declining as farming becomes more commercialised and farmers rely more on wage labour (Dei, 1992:110; Patten and Nukunya, 1982:72; Swindell, 1985:145).

In these arrangements, a group of two to ten farmers work on each others' farms in rotation. It is mainly used for the more demanding tasks such as clearing and ridging. When these groups function well more work gets done, people work harder and they enjoy the company. The owner of the farm is often responsible for providing drinks and, occasionally, food. Many farmers do not use *nnoboa* as there

is a risk that members will leave the group or not work so hard once the work is done on their own farm. This is avoided by selecting members of the group who are known and trusted already:

“ Before we form a group, we look at how best you can work and how best you can be with the group; we know who cheats” (Ibrahim Mallam, Akete farmer, Interview 25).

It is easy to monitor each others' cooperation and put pressure on those who are not willing to turn up for work. There is also a risk that some may not work as hard as others although other members can monitor them at work and such individuals would be forced out of the group. Groups are single sex and made up of people with the same ability although there was one report of a mixed ability group with those who were not so strong included in a group as a form of assistance to them.

The 'strangers' from the north of Ghana will work together with people from their own tribe or other Muslims, and commonly refer to the bonds of "brotherly love" (*nnuadɔ*). Other *nnoboa* were found among members of the same church. These groups work as they are flexible and they are preferred to joint farms as one farmer commented:

“Though we are a nnoboa group, we can't use that to make a group farm because we have different financial strength, different needs and different agendas” (Kofi Mensah, Tanoso farmer, Interview 23).

Hired labour is used for the more demanding tasks and when the farmer has other farms needing attention at the same time. The labourers are usually men and many are migrants from the north of Ghana. There is a long history of hiring migrant labour in the study area. It was present in the pre-colonial period although closely linked to slavery. It increased rapidly with the expansion of cocoa in the 1920s (Berry, 1993: 139). Some of the migrant labourers are permanently resident, while others come for a short period and do not have any farms of their own. Local people will also do labouring, especially when they are in need of money to buy chemicals for their tomato farms. In smaller settlements away from the main villages, the tomato farmers find it harder to get labourers as all the residents in the settlement

are farmers themselves. There are also reports of scarcity in other areas with prices of labour rising (Afikorah-Danquah, 1998; Amanor, 1993).

Two forms of hiring contract are found. Firstly there is the “*by-day*” system where labourers are taken on for a day’s work, either a “*single*” or “*double*” day depending on the length of time. The farmer will have to provide some food or give money for them to buy food themselves. The labourers are paid in cash although, at harvest time, this may be replaced or supplemented with tomatoes that the harvesters can sell. The second form of hiring is the “*contract*”, where the farmer and labourers will negotiate a price for the work to be done. This was found to be more common for clearing and ridging in the bigger farms. This is popular with farmers as it requires less supervision. Some of the money can be paid in advance and the rest on completion. The work is done by groups of young migrant men, often working in cooperative groups that are a continuation of *nnoboa*.

Farmers can delay payment to the labourers if they do not have money. The length of the delay ranges from a few days to the end of harvest. *Although this is not widespread, it is an important way that farmers can reduce the need for capital during the farming season. Most labourers will not accept this since they are usually the poorer members of the community and need the money for immediate investment or consumption. However, they are able to charge extra when accepting late payment:*

“I hired labourers who worked on contract for clearing and ridges. The ridges cost C150,000 but I was not having much money to settle everything so I paid C20,000 and the rest paid at the beginning of harvest if I had paid ready cash they would have charged less, about C110,000” (David Nsiah, Derma farmer, Interview 23).

The extra amount charged by the labourers in this case amounts to 36% over three months. (This has to be considered in the context of annual inflation of over 40% p.a.). There were no cases of farmers writing down what is owed, so the repayment of the debt is based on trust. In the case cited above the farmer stated that the labourers were well known and “close to me”. In other cases the farmers can get

help from labourers when the labourers live in the same house. Other forms of payment after harvest occur when young women or men work on one farm for a season and are paid a fixed amount or a share of the harvest at the end. This can be done with family members or well known people.

5.6 Access to inputs

A large proportion of the costs in tomato production come from inputs such as agro-chemicals, seeds, tractor services, agro-chemical spray machines and water pumps. Estimations from farmers' budgets put these at approximately 55% of variable costs. This section looks in detail at the financing of agro-chemical purchases by dealers. With the large amount of competition between sellers of inputs, the building of customer relations with farmers is a vital part of a successful business. Farmers also spend time building up these relations so that they can use them in the future to get credit, if they need it, and also to get better advice and the best quality chemicals.

5.6.1 Agro-chemical supplies to farmers on credit

The number of farmers in the survey that receive agricultural inputs on credit, and the total amount given is shown in tables 5.12 and 5.13. The average agro-chemical seller is giving goods on credit totalling C1,236,000 at one time. With an estimated 92 sellers in the 4 study districts, this makes a total amount of credit from chemical dealers at approximately C113,700,000 million at any one time. As one of the only sources of finance for the farmers, this is very important for the production of tomatoes in the area.

Table 5.12 Number of farmers receiving credit from each chemical dealer.

Number of farmer customers per dealer	Village 12 interviews	Small towns 17 interviews	Sunyani 5 interviews	Kumasi 8 interviews	Total 42 interviews
0	8.3%	0	60.0%	37.5%	16.7%
1-10	0	23.5%	40.0%	25.0%	19.0%
11-30	66.7%	23.5%	0	0	28.6%
31-50	0	23.5%	0	0	9.5%
51-100	25.0%	17.6%	0	0	14.3%
100+	0	11.8%	0	0	4.8%
Don't Know	0	0	0	37.5%	7.1%
Average number of farmer customers	14.7	62.3	1.4	2.8	32.2

Table 5. 13 Amount of credit given by chemical dealers selling to farmers

Amount given -'000's of Cedis	Village dealers 12 interviews	Small town dealers 17 interviews	Sunyani dealers 5 interviews	Kumasi dealers 8 interviews	Total 42 interviews
0	8.3%	0	60.0%	37.5%	16.7%
1-200	16.7%	11.8%	0	0	9.5%
201-500	8.3%	35.3%	20.0%	0	19.0%
501-1,000	25.0%	17.6%	20.0%	12.5%	19.0%
1,001-1,500	8.3%	5.9%	0	0	4.8%
1,5001+	25.0%	11.8%	0	0	11.9%
Don't know/ Unwilling to answer	8.3%	17.6%	0	50.0%	19.0%
Average	C977,000	C2,104,000	C250,000	C150,000	C1,236,000

When credit is given, the amount, date and the name of farmer is recorded in a note book by the seller. For this reason the shop owners make sure that their workers are literate. No cases of signed contracts were found and there were cases of conflict with both sellers and farmers claiming the other party were cheating.

Not all input dealers are keen to give credit as it comes with risks of default, especially given the nature of tomato production. The risks come from the dramatically changing prices, the uncertain market and the possibility of crop failure

because of pest damage, shortage or excess of rainfall and too much sun. When credit has been given, the agro-chemical dealers have to accept that farmers may not be able to pay back if there is a crop or market failure and they cannot force payment in such circumstances:

“I no more do it like I used to do it at first because it sent me into a hard situation. They did tomatoes on a very large scale but they could not get a market. So every farmers’ tomatoes got rotten in the bush and as a result all my money got stuck” (Mallam Abu, Agro-chemical dealer, Tanoso and Techiman, Interview 3).

To give credit to farmers also requires a certain amount of trading capital (*dwetire*) so that the business is not restricted by shortages of capital to buy chemicals. Those enterprises that are not able to get credit from their suppliers tend to have greater restrictions. Even those who have credit are put under pressure from their suppliers not to give credit to farmers as it may delay repayment. This can become a problem, as credit to farmers is usually for the farming season of up to three months, while credit from their suppliers is for a few days or up to 2 weeks and rarely any more. Some of the larger suppliers will examine the stock of the sellers to check that they have not given too much out on credit and the sellers will try to ensure that they can repay the “deposit” to the supplier.

As input sellers are part of the community in which they sell, they often have a moral obligation to help other farmers, especially if they are close friends or family and those farmers that are referred to as ‘real customers’:

“All trade in the village is based on credit. You have to have the same mercy on others I was getting inputs on credit before I had my shop ... so it is good not to keep too much in the shop or else it is very hard not to give on credit” (Aduisi Mensa, *Susu* collector and previously an agro-chemical dealer, Derma, Interview 30)

“When my customer comes and says he is in hardship then I have to help him. If I don’t help him he will force me, beg me - other than that his yield will fail. He is a customer so he comes to you with money or without” (Opoku Barnie, Bansco Trading Ent., Wenchi, Interview 12)

Friends and family demand credit and often the sellers are unable to refuse. Therefore, those farmers with no chemical shop in their village are at a disadvantage. The migrant farmers are also at a disadvantage:

“Chemical sellers usually give credit to people who have something and also to regular customers and others near them or siblings. If I also had a northerner with a chemical shop, he could give credit to me because it is between brothers” (Seidu Kotoko, Derma farmer, Interview 38).

The ability to give credit depends on the ability to ensure that you are repaid and a knowledge of which farmers are creditworthy. It therefore helps if the dealer lives in the producing village or nearby and knows the farmers in the area.

The proportion of farmers obtaining credit from agro-chemical dealers is shown in the table 5.14. The survey of farmers found that 27% were taking goods on credit and this covered an average of 55% of their total agro-chemical costs. The number of farmers benefiting was found to be lower in certain villages where there is less production and fewer chemical shops. Equal numbers of men and women are benefiting. The data is for tomato producers, but agro-chemical dealers also provide some credit for garden egg and okra farmers as well as maize and cowpea seed growers, although the number of these farmers benefiting from these is very small. They avoid giving credit for maize production as it takes longer to get their money back.

Before giving credit, the agro-chemical dealers have to be confident that they will get their money back. They prefer those who have been tomato farming for a long time as they are known to be good farmers and are likely to continue growing, even if they fail one season. Sellers prefer to give to those with other crops to sell, or other income sources, so that they can be paid if the tomato crop fails. Government workers who are also part-time farmers have better access to credit as they have a guaranteed income at the end of the month, so there is less risk for the input seller and the repayment period is shorter.

Table 5.14 Farmers obtaining agro-chemicals on credit

	Number interviewed	Percentage of farmers receiving agro-chemicals on credit	Proportion of agro-chemical costs met by credit (Data only from those farmers obtaining inputs on credit)
Men	113	26.5%	54.1%
Women	46	28.3%	56.4%
Total	159	27.0%	54.8%
Estimated size of farm in acres			
Below 0.5	23	8.7%	71.8%
0.5	52	19.2%	54.1%
0.6-1.4	42	33.3%	46.0%
1.5-2	18	38.9%	81.2%
More than 2	8	12.5%	17.6%
Don't know	16	56.3%	62.1%
Total	159	27.0%	54.8%
Total amount spent on chemicals (000s Cedis)			
0-50	38	28.9%	68.1%
51-100	55	27.3%	49.7%
101-250	37	35.1%	46.2%
251+	12	33.3%	62.8%
Don't know/ unwilling to answer	17	0%	0%
Total	159	27.0%	54.8%
Tano Boase	20	40.0%	75.6%
Pamdu	20	15.0%	59.7%
Techimentia	40	30.0%	46.1%
Tanoso	28	39.3%	60.9%
Akete	27	14.8%	38.2%
Kokoago	24	20.8%	35.3%
Total	159	27.0%	54.8%

Some farmers do not want to build up customer relations. They prefer to shop around for the cheapest price and do not ask for credit. They also complain that the sellers keep changing or they are not in the shop when they visit, so there is no point

investing in building up customer relations. Finally, there are some farmers, especially non-indigenous ones, who do not want to be in debt.

“ I don't take a loan or buy any chemicals on credit because I am a stranger and afraid of owing someone ” (Akua Mawa, Derma woman farmer originally from the Volta Region, Interview 33).

“ I don't get credit Strangers fear to be in debt and do not want to get themselves in court cases ” (Sumaila Isiak, Kusasi farmer in Derma, Interview 28).

The length of time that the goods are given on credit is agreed at the start of the arrangement. There is some flexibility regarding at what point in the harvest the money is paid, with many waiting until the third harvest, and others paying after the final harvest. Farmers can pay in instalments with a small part of each harvest's sales. Government workers are expected to pay at the end of the month when salaries arrive. If sellers need money, they can ask the farmer to repay sooner by selling other crops or doing other work.

If the crop fails, the seller will usually give some more time to pay. They will ask the farmer to repay using other income or give the farmer more inputs to farm the next season and pay for both lots of chemicals from that harvest. Details of the default rate are not available. The sellers can give details of unpaid bills for the past few years but these are a small fraction of the credit they give out at one time. However, some sellers have suffered much more than others and the quantities lost can be a large proportion of their capital. These enterprises have reduced the amount that they give on credit or caused them to stop giving credit completely. However, the survival of these enterprises over many years indicates that the customer relationships allow for successful businesses.

The main purpose of customer relations and credit is to get more business rather than make money through charging higher prices:

“At the beginning of the season most chemical shops are empty because they have given on credit. But those are the same customers who come when they have money If you don't give credit you will loose customers because there

are so many sellers” (Aduisi Mensa, Susu collector and previously an agro-chemical dealer, Derma, Interview 30).

Through charging higher prices, the agro-chemical sellers have less chance of being repaid as the farmers will move to another customer. They are also constrained by knowing their customers as friends and have moral obligations to help fellow villagers. The wide range of prices found in each village shows that there are few fixed prices, so evidence of being charged extra is hard to ascertain. Furthermore, in many cases farmers reported that the input sellers reduce the price, even when selling on credit, as they are ‘customers’. When there is an extra amount charged, it can be negotiated and may depend on the length of time for which the credit is given and the relationship of the seller and their customer:

“Whenever I give credit to new customers, I add an extra amount to it so that if he is unable to pay all, I would not loose much. I add because I don’t know how best he can pay. For old customers I do not add any extra for they even direct others to come and buy from me.”(Kofi Kyei, Agro-chemical dealer, Techiman, Interview 16).

During the survey 11 cases of sellers charging extra for periods between two and four months were documented. The annual interest rates can be calculated and these range between 11% and 85%.

Agro-chemical dealers need to build up knowledge of their customers in order to be confident of payment of goods given on credit. By living in the same community as the farmers, they are able to build up the customer links and they already have knowledge of the individuals asking for credit:

“We all live in the same town and he (the seller) knows my character. He will be monitoring you as you move up and down” (Paul Fosu, Tanoso farmer, Interview 6).

They will also know where the farmers stay which is vital information when they want to collect any late payments. Some sellers make a point of going to the farmer’s house before giving goods on credit. By staying in the village they can also see that the farmer works hard at the farm and can even visit the farm. Many

farmers also save money with sellers until they need to buy the necessary inputs for their farms. This also allows trust to build up between seller and farmer.

The sellers like to study the farmers for some time. The farmers are tested with credit to see if they keep to the agreement and then the amount given on credit is increased over time. When sellers start their business, they have to take more risks as they do not know who will repay:

“In the beginning I started with 20 then I selected 10 . The others did not cooperate so I left them alone” (Adu Sarfo, “Farmers’ Clinic”, Wenchi, Interview 11).

“I try them with a small amount of credit to see how they are. If they bring money back, then I know for such people when given a bigger amount of credit, they will repay. The more a customer repays credit, the more I increase the amount of credit” (Samuel Yeboah, Agro-chemical dealer, Techiman, Interview 20).

As in cases of receiving credit from traders, farmers can also use certain people as *agyinamu*. This can be translated literally as someone who stands in, but it refers to witnesses, guarantors or intermediaries. These are people known to both parties and can be other farmers, traders, agricultural officers or other villagers. Firstly, they can play the role of guaranteeing or testifying (*di adanseε*) about the character of the new customer:

“I know they will pay because they come with friends who are already my customers. So once I trust my customer, I help his friend too. Some bring someone I respect to speak on their behalf and so I help them also” (Sam Bawah, Agro-chemical dealer, Techiman, Interview 13).

Secondly, the agreement can be set up so that the intermediary takes responsibility for ensuring the goods are paid for later. As shown in section 5.4.2, two tomato traders reported that they had taken farmers to the agro-chemical sellers for credit and offered to pay if the farmer defaulted. In return, the farmers promised to sell the tomatoes to them. Witnesses are also used to back up verbal agreements. The witnesses will be called on in case there is any dispute at a later stage.

Some sellers demand a form of collateral such as a bicycle, tape player, fan, television or a piece of cloth. However, such goods are hard to sell for a good price when the farmer defaults and the agro-chemical seller can be accused by the farmer of damaging the items while storing them.

A further financial service that sellers offer to farmers is a saving facility. The extent of this is shown in tables 5.15 and 5.16. Farmers are restricted in where they can save as the formal banking sector may not be easily accessible, it can be difficult to withdraw money when it is needed, and there is a lack of confidence in some of the rural banks.

Those saving tend to be mainly younger men and they deposit money from a previous harvest, farm labouring or from other non-agricultural income sources so that the money is not used for other purposes. One agro-chemical dealer explained:

“The reason is that we, the men, are not able to keep money in our pockets for long and it may happen that the tomato he is going to cultivate that particular year is very big. So he will bring me the money so that when the time reaches, he will use it for his work. That is why the youth save more than the elderly.”

(Philip Osei Bonso, Onyame Tumiso (God is Great) Tomato Chemicals, Tanoso, Interview 1).

Table 5.15 Number of farmers saving with agro-chemical dealers.

Number of farmers	Village dealers 12 interviews	Small town dealers 17 interviews	Sunyani dealers 5 interviews	Kumasi dealers 8 interviews	Total 42 interviews
0	8.3%	11.8%	0	37.5%	14.3%
1-5	33.3%	41.2%	0	0	23.8%
6-20	25.0%	11.8%	60.0%	0	21.4%
21+	8.3%	0	0	0	2.4%
Don't Know/ unwilling to answer	25.0%	35.3%	40.0%	62.5%	38.1%
Average number of farmers per dealer	13.8	5.5	11.0	-	6.0

Table 5.16 Amount saved with agro-chemical dealers

Amount saved '000's of Cedis	Village dealers 12 interviews	Small town dealers 17 interviews	Sunyani dealers 5 interviews	Kumasi dealers 8 interviews	Total 42 interviews
0	8.3%	11.8%	0	37.5%	14.3%
1-100	8.3%	11.8%	40.0%	0	11.9%
101-200	0	17.6%	20.0%	0	7.1%
201-300	16.7%	11.8%	0	0	9.5%
301+	41.7%	5.9%	0	0	14.3%
Don't know/ unwilling to answer	25.0%	41.2%	40.0%	62.5%	40.5%
Average	461,000	168,000	133,000	-	249,000

Furthermore, through saving with agro-chemical sellers, farmers can build up a better relationship and may get more on credit in the future:

“About 10 to 20 customers could deposit a total of C100,000 to C200,000 for one month or even less. When they come they take [on credit] goods worth C500,000” (Samuel Yeboah, Agro-chemical dealer, Techiman, Interview 20).

“ During the harvest, a farmer can say ‘I do not want to chop this money’, and so a farmer can come and deposit about C300,000 For such a person when he works along the season and runs out, I help him. This money helps me a lot and so I think about such people especially when they run short.” (I.K., Agrochemical dealer, Tanoso, Interview 2)

Saving also allows the farmers to have a guaranteed supply of specific chemicals if there is a shortage. This is seen as a form of deposit or as part payment for the chemicals to be received later. If the prices rise between depositing and the collection date, then the seller can decide to give to the farmer at the earlier price, if they have deposited a large enough amount. Most of the sellers used the money deposited for their own trading, often without the farmers' knowledge. However one seller had an agreement whereby she gave goods on credit worth C300,000 to four farmers and they give her a loan of C500,000 after paying her back for the credit.

Money is usually deposited for about one month, although it can be left for longer. Deposits are made in lump sums after a harvest, weekly or daily. It is possible for farmers to withdraw the money if they have a sudden need. The amount loaned is recorded by the sellers in a small notebook and the farmers have trust in them as they are well known and they have the built shops so they are unlikely to run away. The number of farmers saving, and the amount saved, is higher in village stores than town shops. This suggests that physical proximity of farmers to the agro-chemical shops is important.

5.6.2 Agro-chemical sellers buying on credit

The ability of the agro-chemical retailers to finance agriculture and build up their own businesses is based on their ability to obtain goods on credit from the wholesalers. The length of time allowed for repayment ranges from a few days to two weeks. The goods received on credit are not passed onto the farmers on credit as the retailers would not be able to collect payment until the end of the harvest. However, it allows retailers to use their own capital to give on credit to farmers, while relying on credit from wholesalers to keep the business going. The proportion of sellers getting credit and the total amount given at one time is shown in table 5.17. The proportion of sellers receiving credit is higher in the towns than the villages because of the larger scale of operations and their closer links with wholesalers.

Table 5.17 Retailers obtaining credit from agro-chemical wholesalers

	Village dealers 12 interviews	Small town dealers 17 interviews	Sunyani dealers 5 interviews	Kumasi dealers 8 interviews	Total 42 interviews
Yes	58.3%	76.4%	80.0%	62.5%	69.0%
No	41.7%	17.6%	20.0%	37.5%	28.6%
Don't Know/ unwilling to answer	0	5.9%	0	0	2.4%

Table 5.18 Amount bought on credit

Millions of Cedis	Village dealers 12 interviews	Small town dealers 17 interviews	Sunyani dealers 5 interviews	Kumasi dealers 8 interviews	Total 42 interviews
0	41.7%	17.6%	20.0%	37.5%	28.6%
Less than 0.2	8.3%	17.6%	0	0	9.5%
0.21-0.5	0	11.8%	20.0%	0	7.1%
0.51-1.0	8.3%	0	40.0%	12.5%	9.5%
1.01-2.0	16.7%	0	0	0	2.4%
2.01-5.0	8.3%	0	0	12.5%	2.4%
5.01+	8.3%	23.5%	0	37.5%	19.0%
Don't know/ unwilling to answer	8.3%	29.4%	20.0%	0	16.7%
Average	1,200,000	10,600,000	4,800,000	3,200,000	4,500,000

The retailers will usually pay part of the cost in cash and take the rest on credit. Repayments are made when the goods are sold or on the next visit to the market. The period of time depends on the season and the demand for chemicals in the locality of the retailing shop. Wholesalers reported that they were unwilling to lend to smaller enterprises as they could be slow to pay. When a retailer has failed to pay on time, the wholesaler can come and claim back the unsold goods. Therefore, the wholesalers giving credit to retailers try to insist that the goods given are not passed onto the farmers on credit. The bigger wholesale companies send 'auditors' around to their customers to check their stocks to ensure this does not happen.

The prices of agro-chemicals purchased on credit were reported to be the same as paying cash, as the wholesalers wished to keep their customers. There were only two cases where the retailers said they had to pay extra. In one case the buyer had to pay an extra C500 on each bag of fertiliser when getting credit for 3 weeks (3% extra); in the other case, the retailer had credit for a week and had to pay 4% extra. However, prices vary between wholesalers, so a retailer may buy from a more expensive wholesaler because of the credit. Data on the extra costs from customers giving credit is not easily available.

The ability of the retailer to obtain credit depends on their links to the wholesaler. They will, therefore, invest time in getting to know the store keeper and the staff so that they can collect goods on credit any time. The wholesalers often visit the retailers to see how they manage their shop and to know where they live and work.

Knowing the location of a customer's house is important for the collection of money and to reduce the risk of default. The wholesalers also test the retailers, in a similar way to the retailers testing the farmers, to see who is trustworthy. In two cases the retailers referred to the people who supply them on credit as their "manager" or "boss" although the businesses were entirely separate. This reflects the power that wholesalers can exert over the retailers in such situations.

Friendships with key people are also important in getting access to credit and some will go to great lengths to build up these links. In one case a small agro-chemical seller in a village found out that he was from the same church as his supplier in Kumasi and so invited him to the village to attend church, and meet the church and family elders so that they would "know everything between us". This was a way of ensuring the contract would not be broken.

Three of the larger companies, Wienco, FASCOM and Chemico, were found to be making more formal contracts. The agro-chemical sellers in this case become agents for them. This requires retailers to sign legal documents and auditors will visit regularly. Some demand that retailers provide a building as collateral.

5.6.3 Seed supplies

A survey of 33 tomato farmers⁷ found that 15% of tomato growers had obtained seed from off-farm sources for the present or most recent season (see table 5.19). None of the farmers interviewed replaced seed on a regular basis. Farmers may have to get seed from sources other than their own when starting a crop or variety for the first time or after a short break in farming. Other reasons for not using their own seed include varietal deterioration, the failure of the last season's harvest, or a failed nursery.

⁷ This survey was carried out in 1996 and the data used here is part of a larger survey that also looked at garden eggs and tomato farmers growing for consumption and local markets (Lyon, 1997b).

Table 5.19 Use of own seed for present or most recent farm

	Men	Women	Tano District	Wenchi District	Total
	22 interviewed	11 interviewed	13 interviewed	20 interviewed	33 interviewed
% of farmers obtaining seed off farm	9.1%	27.3%	7.7%	20.0%	15.2%
% of farmers extracting their own seed	90.9%	72.7%	92.3%	80.0%	84.8%

There are also many farmers who prefer to have seedlings that have been nursed by others. This can save them time and effort, and allows them to start their rainy season farms by using seedlings that have been irrigated during the period of uncertain early rains. Many farmers find that irrigated nurseries are time consuming, especially if the water source is far from their house. Some farmers, usually older women, can specialise in growing seedlings to be bought by tomato farmers. These women have developed the knowledge and reputation through growing tomatoes themselves, but do not have the strength to do large scale farming in their old age. The extent of buying seedlings from specialists, and the importance of this as a source of income, is not known.

Other farmers mentioned that they get some new seed when they see another farm with good quality crops. In such cases they are taking a more pro-active approach to improving their seed stock, rather than a reactive approach to an immediate problem. In many cases they mix the newly acquired seed with the seed from the previous year's crop, as they do not want to lose the genetic stock that they have developed over several years.

Farmers prefer to source seed locally, so that they have some guarantee that they obtain the variety they want (see table 5.20 and 5.21). The most common source is local farmers, although women are more reliant than men on family members. To obtain quality seed, farmers may rely on 'neighbour certification', where farmers know the person providing the seed or visit their farm. However, this needs to be

seen in the context of the access farmers have to other farms, which can be limited amongst those who do not farm near other vegetable farmers. Irrigated farms are grouped around water sources and are more accessible to other farmers.

Table 5.20 Sources of seed of new varieties

Source	Men 22 interviewed	Women 11 interviewed	Tano District 13 interviewed	Wenchi District 20 interviewed	Total 33 interviewed
Family	18.2%	36.4%	23.1%	25.0%	24.2%
Local farmer- not family	40.9%	27.3%	30.8%	40.0%	36.4%
Farmer out- side village	18.2%	9.1%	23.1%	10.0%	15.2%
Vegetable trader	4.5%	18.2%	0	15.0%	9.1%
Chemical dealer	4.5%	0	7.7%	0	3.0%
Agricultural extensionist	9.1%	9.1%	7.7%	10.0%	9.1%
Other	4.5%	0	7.7%	0	3.0%

Table 5.21 Distance to seed source

	Men 22 interviewed	Women 11 interviewed	Tano District 13 interviewed	Wenchi District 20 interviewed	Total 33 interviewed
Same Village	59.1%	54.5%	61.5%	55.0%	57.6%
0-5 km	9.1%	9.1%	7.7%	10.0%	9.1%
6-20 km	22.7%	36.4%	30.8%	25.0%	27.3%
More than 21km	9.1%	0	0	10.0%	6.1%
Average Km	9.4 km	4.4 km	4.2 km	10.0 km	7.7 km

In some areas there is a reluctance to visit other farmers' farms as future crop failures on that farm can be attributed to 'juju' or a curse left by the visitor. Interviewees were unwilling to say whether or not they believed this, but were clearly concerned about the effect that an accusation could have on their reputation

within the village. There were reported cases of successful farmers who actually gave up vegetable cultivation because they had experienced a series of failures attributed to 'juju' or a curse placed on them by someone who was jealous of their success.

Labouring on other people's farms allows farmers access to new seed and several farmers reported that they got new varieties after taking left-over seedlings or unsold harvested fruit from farmers who had hired them as labour. There is more openness among the younger men, many of whom join together into co-operative work groups (*nnoboa*).

In each village there appear to be certain individuals who are renowned for their vegetable production. These individuals are usually middle aged, male farmers who have been growing the crop for longer periods and have bigger farms. They are often referred to as 'chief farmer' or a subject specialist for a certain crop. They also appear to be those with the best links to the urban based traders, as they develop customer relationships using the large quantity harvested to increase their bargaining power. This means that they are the first farmers to try new varieties bought by the traders. There are certain villages, such as Techire and Akumadan, that are renowned for the quality of the crop and farmers will travel long distances to get seed from there. However, seed production was not reported to represent an important form of income generation by any respondent.

More men than women obtained seed from farmers outside the village. The seed that comes from further away is often in the form of gifts from visiting relatives or from friends or family who travel to a distant place. Teachers and other government workers, who are also farmers, play a key role as they may have links with more distant towns. Links are also developed with distant areas through marriage or migration to those areas. Several cases were reported of seed being brought back after attending a funeral of a relative or a friends' family member.

As mentioned above, traders play a key role in the provision of seed and were cited by three of the respondents as the original source of seed. Traders are important

actors in the dissemination of new varieties as they provide new preferred varieties to farmers. They rely on farmers to distribute the seed to other farmers in the locality.

Agro-chemical dealers are the main outlet for the distribution of 'commercial produced' vegetable seed, although this was cited by only one of the respondents as their original source of seed. Most vegetable seed sold by agro-chemical dealers is of non-certified origin imported from Denmark, Netherlands or the United States. Three farmers said that they had got seed from '*agric*'. This refers to agricultural extensionists, or front line staff, as well as anyone else working for the Ministry of Food and Agriculture or research institutes. This is not part of the extensionists' function but they can sell seed to farmers as a way of making some money. The extensionists usually buy seed from a seed dealer when they visit the main towns and so provide a useful service to farmers who are not able to go there themselves. They mainly buy imported tomato seed. One farmer who used this source stated that he wanted a new variety and asked the extension agent as he would be sure to get the right variety.

In the Wenchi area, several farmers reported getting seed from the Tomocan tomato processing factory before its closure in 1989. People who were employed there and who are now farmers themselves, are still known to be good sources of seed. There are also vegetable seed traders who do not sell other inputs and do not have a shop to sell from. These traders may sell seeds of all crops that are grown widely. An example of this is Mame Fridge who sells tomato, garden egg and okra seed in Kumasi Central Market at the main tomato wholesale yard. She grows pure '*power*' and mixed '*yokohama*' tomato seed on her own farm, where she carefully selects the good fruit for seed. She pays attention to quality as she wants to build up a reputation.

5.7 Conclusion

This chapter has shown that there is a wide range of contracts and institutional forms that allow farmers to get access to land, finance, labour and inputs. Very few of these are based on any written agreement. They are based on varying social relations, including the nuclear family, *abusua* or extended family, village level networks and long distant networks with traders, input sellers or bank managers. It is interesting to note the lack of cooperative activities involving more than bilateral agreements, except for the small amount of cooperative *nnoboa* labour systems. An understanding of the nature of the existing contracts requires an exploration into concepts of trust and into how these agreements are shaped by bargaining power. These issues are explored in later chapters.

Chapter 6 Social relations and institutional aspects of the vegetable marketing system in rural areas

6.1 Introduction

The previous chapter examined the institutional aspects of the production system and described the range of contracts that are used by farmers. This chapter will continue the analysis by describing the wide range of contracts and institutional forms between farmers and traders and among traders. Three key resources are selected for detailed study: transport, credit and information. In addition, this chapter explores the institutions of buying and selling including the customer relationships, bargaining processes by individuals and groups and shifting bargaining power. As shown in the discussion of the production system, there are a range of networks that the farmers and traders can draw on. These vary from the strong and close networks based on kinship to the weaker long distant networks between farmers and traders in urban markets. An analysis of these institutions and different actors' behaviour in the market can be understood in terms of the social relations that underpin the marketing system as well as reactions to price changes and transaction costs.

6.2 Institutional aspects of the transport system

Farmers and traders can transport tomatoes by 'headloading', local taxis or larger trucks from urban areas. Tomatoes harvested in the morning or afternoon one day will be in the market by the next morning and most will have been sold to consumers by that evening. An efficient transport system has developed around the perishability constraints and allows the traders to travel over very long distances. For farmers, the decision to produce perishable crops, such as tomatoes, on a commercial scale for urban markets is closely linked to guaranteed access to transport.

The areas that can guarantee a steady stream of traders with transport are those with a reputation for growing produce. These areas have more production and so the traders

have some guarantee that they can fill their trucks in a short time. Farmers from less well known villages have to convince traders that there is enough to buy in that locality. This supports the findings of previous surveys on transport costs and agricultural development, that accessibility (seen in terms of transport cost) cannot explain the proportion of farmers selling food crops in rural areas of Ashanti Region (Hine et al, 1983). The importance of access tracks was noted in the 1930s with the expansion of cocoa to areas that were linked by tracks officially regarded as not motorable (Dickson, 1969: 329).

Farmers are responsible for 'headloading' produce to the roadside, if the trucks cannot get access to the farms. In one of the survey villages, Kokuago, the traders often refuse to visit because of the very poor quality of the tracks. The path to the village is simply a clearing made through the bush by the villagers and in the rainy season it becomes impassable. Farmers wanting to sell in the town of Wenchi, seven to eight km away, rely on women to carry the produce there. In a few cases farmers reported that they used tractors to transport produce from the farms to the road head. This was more common for vegetable other than tomatoes such as garden eggs (small aubergines).

Brong men, the largest group of growers, are rarely seen carrying any produce because of the customary gender division of labour. Farmers rely on female family members or hire male 'strangers' who have come to the area from the north of Ghana for labouring. The women will put the tomatoes into bowls (estimated weight 15 kg) while hired men will carry the crates of tomatoes weighing 75-85 kg, although for shorter distances than the women. The hired men are paid according how many crates they carry. It is possible for them to make a sizeable sum of money compared to other tasks as they are paid approximately one quarter of a daily salary for each crate carried.

In a large majority of cases, the female traders are responsible for supplying the transport to urban markets. Traders will hire transport from the producing area or from the markets. Farmers rarely hire trucks. This is partly due to the restrictions on farmers selling in markets, and also due to the small scale of enterprises and the lack

of cooperation between farmers. The rented vehicles tend to be small trucks, usually 'Benz buses' that can carry 60 crates or a total weight of tomatoes of 4.2 tonnes. Smaller trucks are replacing the older '7 ton' trucks that could carry 100 boxes. Larger hired vehicles are usually shared between traders.

None of the traders interviewed had their own transport and, as in other areas of Ghana, trade and transport are separated (Gore, 1978: 169). Vehicles are owned by individuals, usually based in urban areas, who may hire drivers or drive themselves. Drivers are responsible for finding business and pay the owner the profit on a daily or weekly basis. As Guyer (1997: 90) found in Ibadan, Nigeria, drivers have an incentive to overload and work long hours. Those who travel long distances to the producing areas, drive through the night and return the next night. There was no reported use of railways as they are too slow and unreliable. Traders going to local markets will use any vehicle available, including passenger cars and minibuses. They tend to buy smaller quantities and so may not hire a whole vehicle for the trip.

Access to vehicles has improved dramatically over the last 10 years. In the early 1980s obtaining access to transport was a major constraint for traders and success in marketing depended on having connections and influence over vehicle drivers and owners (Clark, 1994). Similarly, Davis (1973: 202) found that "the commercial position of the Chinese wholesale grocers in Baguio City is enhanced by factions in the local transport network. Local Chinese wholesale grocers share, with other Chinese, access to superior specialised transport". Saul (1987:79) in his study of grain markets in Burkina Faso writes that one trader who owned the means of transportation had additional power over the other traders as he could threaten to withdraw this service. Guyer (1987: 46) also refers to the traditional control of transport in Cote d'Ivoire.

Access to vehicles was not reported to be a major problem for itinerant traders in the survey areas although, in August 1996, the itinerant traders in Kumasi stated that there was a shortage of vehicles as the drivers preferred to work with the yam traders who were bringing in the newly harvested yams. Traders buying from areas with very poor roads may find it difficult to get urban based trucks to go there especially in the

rainy season. The drivers may charge higher prices because of the potential damage to their vehicle and because they have greater bargaining power. The traders will pass the costs onto farmers by reducing the price they pay for the produce.

The quality of the vehicles and roads is often very poor which is an added risk to the traders in terms of accidents and delays. A delay of a few hours can mean selling later in the market and getting a lower price. In the worst instance the produce may not reach the market and the trader can lose all her capital. If the vehicle breaks down then the driver is paid up to that point and traders have to get another vehicle for the rest of the trip. The driver is obliged to help them find transport locally, although they often have to go back to Kumasi.

Drivers and transport owners do not bear the cost of any losses and most drivers will charge the full amount per crate, even if the trader has to return to the market with empty boxes as the farmgate price was too high. Some traders have built up close working relationships with certain drivers and use the same truck each time. Drivers can be more lenient when the trader makes a loss by only charging the fuel costs or reducing the price he charges for each crate. They can also act as guarantors when traders have to buy on credit and can assist traders by buying from the farmers, taking the crates to wholesalers in other markets, and collecting the money. However, this is rare as there are large risks because of the perishable nature of the produce and the dramatically changing prices. Other support for the traders' activities include agreeing to be paid after the goods are sold, therefore reducing the amount of capital the trader requires.

The transportation system in Ghana is centred around the lorry park system. A vast majority of vehicles are operated by members of the Ghana Private Road-users Trade Union (GPRTU) which claims to control 80% of the Ghanaian transport industry (Delaquis, 1993). Vehicles are registered for certain routes and are placed in a queue. The GPRTU has a Tomato Cargo Branch in Kumasi and in Accra. They play a role in organising the transport for the tomato traders, especially when there is a shortage of transport. Traders in Kumasi can get transport on their own if it is available. If they cannot find any they can go to the branch office and be allocated a vehicle. The office

is in Awanaga where the boxes are made, and its position here makes it a central point from which information is gathered and distributed, and where traders can meet.

There is a fixed price per crate from each supply area, set by the GPRTU. To become a member of the branch, each truck has to be registered and a fee is paid. The GPRTU levies a user charge in addition to the registration fee. This charge is officially 5% of the value of transport, although Delaquis (1993) reports that the figure can be as high as 10% according to survey responses. The Union also collects a daily fee for upkeep of the park from the municipal or district authority, and collects 3 % income tax on behalf of the Internal Revenue Service (Delaquis, 1993). The Union also assists when trucks break down by sending another vehicle and plays an active role in settling disputes between drivers and traders or farmers.

In Kumasi traders are allowed to obtain transport from the supply areas, although it was reported that in Accra the traders have to go through the GPRTU or else they are not allowed entry into the market. The power to exclude non members comes from their control over the key spaces such as unloading stations and is sanctioned by the local authorities and central government (Lyon, 1999a). Vehicles bringing tomatoes to Kumasi Central Market have to go to the tomato wholesale yard (*ntoose bole*) early in the morning to unload before the yam lorries arrive. The organisation of the vehicles is done by GPRTU. The unloading of crates is done by the Gao porters: their role in the marketing system is discussed in section 7.5.1.

6.3 Institutions of buying, selling and bargaining at the farm level

The studies of daily price changes at the farm level showed that there were dramatic changes in prices from day to day, during the day and between individual farmers. This was contrary to the expectation of relatively standard prices that change through the seasons. The dramatic changes in prices are partly due to the perishable nature of the tomato crop and the lack of any processing or storage opportunities. To know

how farmers and traders cope with the system, it is therefore necessary to understand the institutions of marketing at the farm level. A brief outline of the actors and marketing channels was given in chapter four. This section builds on this, describing in detail, the institutions used by both farmers and traders. These institutions shape the ability of farmers and traders to increase their incomes through manipulating the balance of bargaining power, accessing the market and obtaining credit.

6.3.1 Customer relations

Customer relations affect all areas including access to markets, supplies, information and credit. They also act as security and a form of capital accumulation (Gore, 1978: 185; Trager, 1981b). Farmers who have been growing a certain crop for several years will develop close trading relationships with some traders, preferring to sell to them rather than other traders. Both the farmers and traders refer to each other as 'customers' and this reflects the two way flow of benefits. Traders value their customers as an important resource in their marketing. Older traders were observed bringing their daughters with them on buying trips so that they could meet the farmers and would be able to inherit certain customers.

The farmers benefit as the system of customer relations ensures that traders will buy their produce when there is a glut and it will help them obtain credit from the trader. Farmers may be forced to take a lower price because they received a loan for production; the extent to which this opens up opportunities for exploitation was discussed in section 5.4.3. Farmers may also receive a lower price as they have to sell when the trader customer arrives and this may be at the beginning of the day when the price is often lower. There may be times when a trader offers a higher price than the going rate, on the condition that the farmer does not tell others.

Benefits for traders come in times of scarcity, when farmers will guarantee to sell some produce to their customers, even if the price offered by other traders is higher. The farmer will ensure that the quality is good and can introduce the trader to other

farmers who are known for good quality produce. Farmers may also assist traders by giving them produce on credit. This is discussed later in section 6.5.

6.3.2 Shifting bargaining power and changing power relations

Tomato farmers have little choice over when they sell their crop. Farmers selling other crops have greater control over supply as they can store produce and therefore increase their bargaining power vis-a-vis the traders. Tomatoes are highly perishable so the farmer may not have the option of turning a trader away, unless he or she knows that there are others coming. When there is a large supply the traders can dictate price and the farmers have to accept it. In extreme periods, it was reported that the price offered by the traders would not even pay for the labour needed for harvesting.

At certain times farmers are forced to go to the urban markets to get traders to come to the village. In Kumasi they go to the Central Market or to Awanaga where traders from other areas can be found. In such cases the bargaining is done in the urban centre and farmers have a very weak bargaining position. The farmers in Dwomo had to do this over several days during which the prices fell dramatically:

“Farmers had to go to Kumasi Awanaga to arrange for buyers. That is why there is a very low price. We were only able to get one lorry so the traders took advantage to cheat us” [they got C30,000 and the day before it was C40,000]
(Kofi Gyansa, Dwomo farmer, Interview 15)

The farmers who have contributed to the travel costs of the person sent to find traders will receive all the boxes that they need and others will get some if there are any left over.

When there is scarcity of tomatoes in the markets, farmers have greater bargaining power because there is competition amongst the traders. The price is pushed up as new traders need to attract more farmers to sell to them:

“Buyers usually bring the price but in the lean season, buyers struggle. So one comes (to buy) at C40,000, the next at C50,000 and then the next at C70,000.

So the farmers have no problem setting the price as the traders push it up. ... But when there is lots of tomato then the farmers take any price” (Torro, Tanoso farmer, Interview 37).

“If traders have come late and they see other trucks and see that there will not be enough tomato, they will raise the price - farmers can ask earlier traders to raise the price or take their boxes back” (Salifu, Kokoago farmer, Interview 1).

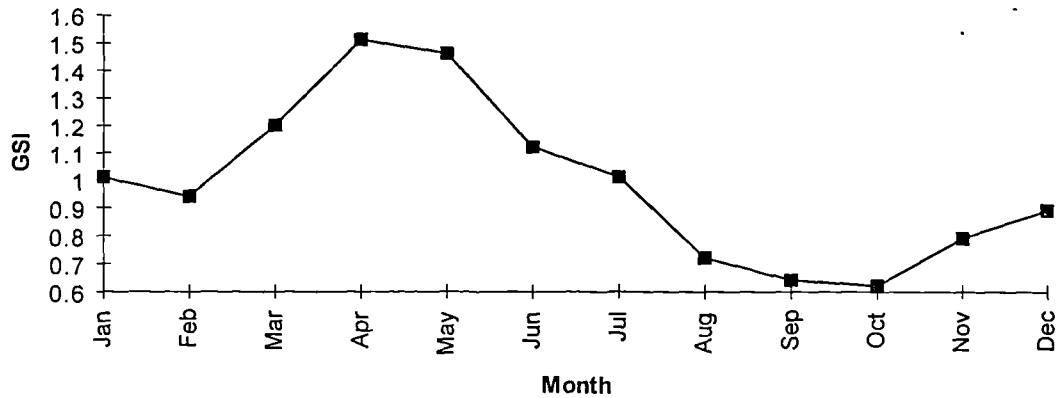
Short periods of scarcity can occur throughout the year but there is greatest shortage at the end of the dry season and at the beginning of the wet season. This is shown by the higher market prices during this period. Figure 6.1 gives the seasonal price indices although the analysis used monthly data that cannot show the dramatic price changes from day to day. Tomato production during the period of scarcity is limited to those with ability to irrigate. These farmers have access to land near a guaranteed water source combined with the strength to carry water or with capital pay for the irrigation.

6.3.3 The bargaining process

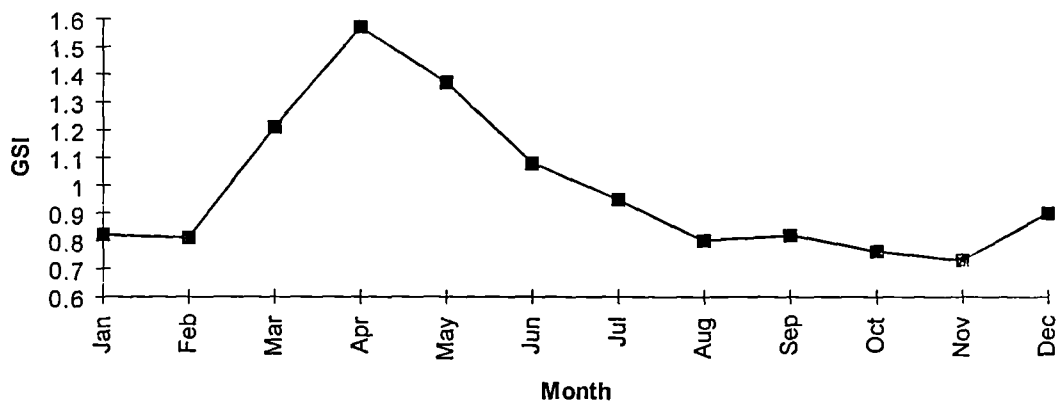
Producers have different bargaining processes to full time traders as they have an opportunity cost of their time and cannot afford to let the haggling go on for too long. The price is fixed before the farmers harvest as the traders bring the boxes that are used and farmers do not want to harvest until they can guarantee that they can sell. There can also be bargaining later over issues of quality and quantity. The price setting procedure depends on the bargaining positions of the farmers and traders and this will depend on the supply of vegetables and the quantities that traders want to buy. The power balance between farmers and traders moves over the year. In periods of scarcity, the farmers can set the price and the traders will have to buy as there may not be other places to go to. In periods of glut, the farmers cannot afford to bargain as the trader can go elsewhere.

Figure 6.1 Seasonal wholesale tomato price indices in Kumasi, Sunyani and Accra markets

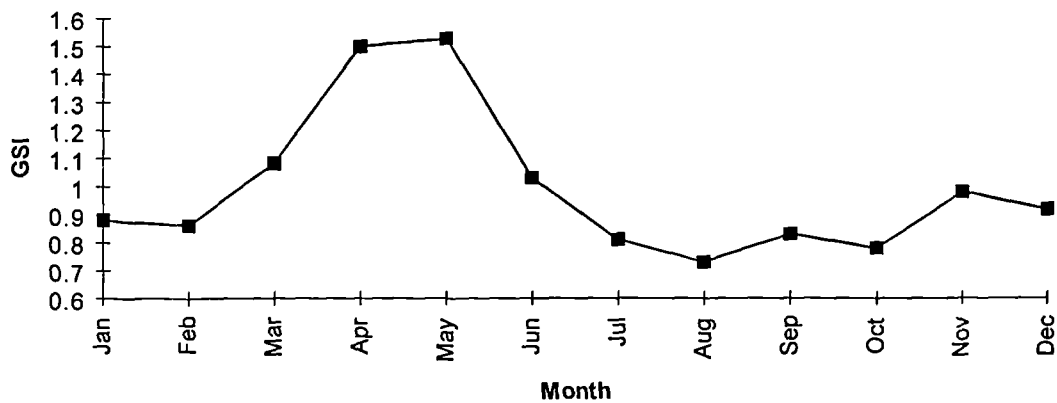
Grand Seasonal Index for Tomato Wholesale Prices in Accra, Dec. 1983 - Sept 1994



Grand Seasonal Index for Tomato Wholesale Prices in Kumasi, Ghana, Dec. 1983 - Sept. 1994



Grand Seasonal Index for Tomato Prices in Sunyani, Ghana, Dec. 1983 - Sept. 1994



Source: Floyd, Warburton and Gray (1996)

The bargaining can go on for some time with each side making concessions. Both sides draw on various bargaining skills, claiming poverty and the right that they have to earn enough money to feed their children. The traders from Accra may also try to confuse the farmers by talking amongst themselves in Ga language which the farmers cannot understand. If the traders are not happy with the price then they can leave and try to find produce elsewhere. On one occasion, the tomato traders would not accept the price that the Dwomo farmers felt was acceptable and so went off. The farmers realised that they might not find any other traders that day:

“There were three cars and one offered C40,000 but the other offer C38,000. The farmers refused the C38,000 so the traders went to Techimentia ... The farmers had to go to Techimentia to call them back” (Kwame Adjei, Dwomo farmer, Interview 26).

The bargaining process can be very different if the producer has taken a loan from the trader for production. In such cases the trader has much more bargaining power. However, there were no cases reported of prices for tomatoes being set at the time of receipt of the loan. This can happen for other crops (Lyon, 1998) but the tomato prices fluctuate too much to make this realistic.

The prices in the village often change through the day. Traders who come later are offered higher prices as the farmers know that there is a shortage of ripe tomatoes:

“I sold for C25,000 to the traders who came among the second group. The first batch offered 20,000 but the second could not get enough to buy so we increased the price” (Yaw Appiah, Dwomo farmer, Interview 8).

“I was lucky to meet the last batch of traders who could not have sufficient tomatoes to buy so we increased the price” [from C55,000 to C60,000] (Kofi Acheampong, Dwomo farmer, Interview 3).

It is a risk that farmers take in deciding whether to take the price offered by the first vehicle as it may be low, but there may not be any others coming:

“The trader who comes first gives any price she wants. This day I accepted 25 and when I returned from the farm I heard that another car had come and

offered 38..... I had to go for the early traders because my farm is far away and other traders may prefer those who are nearer” (Charles Amponsah, Manso farmer, Interview 8).

The price can go down through the day if there have been very few traders arriving that day and the traders know there is a large supply of ripe tomatoes. The farm gate price can also drop if the price in the market has dropped and the early traders do not know this, or if the traders have come from another market with a lower price.

“My customer came from Bolga and gave me 33 because the price was good in Bolga. Later the traders came from Accra and offered 20 because the price was lower there” (Charles Amponsah, Manso farmer, Interview 8)

The Accra traders often offer a higher price than the other traders, as the prices in the market there are higher. It was also said that many traders from Togo buy from Accra and this increased the demand and the price. Some farmers claimed that the higher prices were due to restrictive practices in the market. The extent of this is examined in chapter seven. The Accra traders may also be more rushed than the other traders as they have further to travel and have fixed days they can enter the market so cannot afford to be delayed.

6.3.4 Units of sale and supply of boxes

The traders supply the wooden boxes which are a relatively uniform size of between 70 and 80 kg¹. There are ‘half boxes’ that weigh approximately 50 kg which are used only occasionally. There are also some smaller boxes sold in one part of Kumasi Central Market but these are not used much in Brong Ahafo. Some farmers near Wenchi complained of traders changing the size of the boxes with the seasons:

¹Official prices quoted by the Ministry of Food and Agriculture refer to boxes of 52 kg. However, those collecting prices were found to be asking the traders the prices of the 70 -80 kg boxes. This issue is discussed in relation to radio broadcasts of market prices in section 6.4.1.

“Wenchi traders cheat more because the boxes are very big and the size increases ... they used the mango boxes. In the lean season they bring smaller boxes otherwise no one will harvest” (Kwaku Adjei, Kokoago farmer, Interview 16).

At times there is a shortage of boxes and farmers rush to get as many boxes as possible from the traders. When there is such demand, the traders may allocate boxes to certain farmers who are their ‘customers’. Occasionally the fights for boxes occur before the bargaining has started and those who are doing the bargaining may not get enough for themselves.. There can be fights over boxes and women farmers stated that they have to get a young man to climb on the truck and throw down boxes on their behalf. There are also cases where farmers take those boxes that have been thrown down by other farmers. Disputes of this nature may be settled with the elders or leaders in the village if they are not resolved immediately.

Having control of boxes gives the traders greater bargaining power. When the traders see the farmers rushing for the boxes, they know that the farmers are desperate to harvest and so stick on a low price. One farmer was not able to get boxes from the trader so used some left by a trader before:

“I had not harvested for four days and when the traders came I could not get any [boxes]... so I had to use my own ... I had collected these boxes from former traders when I could not fill all the boxes I was given... Then the traders refused to buy them saying there was no room on the truck so I was forced to reduce the price by C4000 ... the price for that Sunday was C20,000” (Atta Kwasi, Dwomo farmer, Interview 17).

The traders buying smaller quantities from small scale farmers or those at the tail end of their harvest, may buy in baskets. These come in a range of sizes so the price of each basket has to be negotiated separately. Farmers can join with another farmer in order to fill one box and share the price received.

6.3.5 Cooperative marketing institutions

There is usually group bargaining when more than one farmer in a community is selling, as this reduces the time and cost of marketing. The farmers may select two to six farmers to represent them. The representatives are chosen for their knowledge of marketing, bargaining ability, public speaking skills and because they have the confidence of the other farmers. There are occasionally accusations that these farmers may bargain for a lower price and get a pay off from the traders. Therefore, the representatives chosen tend to be men harvesting larger amounts that day, in order to reduce the risk of collusion with traders. The risk of this is reduced as they have more at stake² and it is not worth their while settling for a lower price.

The need for respect of representatives is very important as it is up to these individuals to stop those farmers who are desperate to harvest from accepting a lower price. The farmers also have to believe that the negotiator is trying to maximise the price for the farmer. In cases where these groups are strong, the main negotiators are well known and trusted:

“We have a spokesman who speaks on our behalf, Gyedi Boateng he is an elder of the Gyedi church. He has been doing this for a long time ... People trust him as he has ‘human rights’ and people have studied him” (Cephus Addae, Derma farmer, Interview 7).

Most bargaining groups have a rule that the farmers cannot take boxes to fill before the price is set by the leaders of the group. Once the price is set it is broadcast around the community. Some villages use an individual who ‘beats the gong-gong’ to announce the price. This is the traditional method by which messages are spread within any village. The price setting by cooperation can only work in periods of scarcity when the farmers have more bargaining power. When there is a glut, the perishable nature of the tomato crop means that some farmers will be forced to sell at

² Similar selection procedures were reported by Uphoff (1996: 354) at the Gal Oya irrigation project in Sri-Lanka. Farmer representatives for the irrigation maintenance

any price or else risk losing the ripe produce if traders decide to buy from another village. These institutions are also restricted as some farmers have entered into 'customer' relationships with traders and are forced to sell at a lower price against the wishes of the farmer group.

The strength of the associations depends on the level of cooperation among farmers and the ability of the association leaders to persuade farmers to stick to the agreed price. The power of the committees differs dramatically between villages and depends on the unity of the tomato farmers and the strength of the chief and elders. Strong committees were found in the villages of Awisa, Derma and Akumadan. Those who break the rules can be fined and taken to the chief. In other villages, the associations are weak as the leaders cannot enforce their own decisions even when there are a large number of traders wanting to buy.

In villages with disputes over the chieftaincy, the powers of the committees are even weaker. This has been a long term issue in several of the villages around Techiman, leading to violence in some of the main tomato growing areas in February 1996. The problems in Tuobodum were expressed by one farmer there:

"There is unrest here because of the recent crisis so it is often difficult to have one mouth piece. In Akumadan they are well disciplined and when the chief says one thing the people listen. Here it would be best to get the leaders of both factions to negotiate but they have different interests and support different chiefs. If there are divisions then the leaders will do what their farmers want..... some boys from the other faction will say 'we made the farm' and then jump on the trucks before the price has been set. In Akumadan they are strong and people stay inside while others set the prices. They are 'disciplined'. Here all 500 farmers are outside and shouting" (Samuel, Tuobodum farmer, Interview 2).

management were selected from the tail-end farmers who had more to lose from poor maintenance.

There have also been many attempts to establish organisations that can allow farmers to benefit from collective action in acquiring inputs for agriculture. Villages such as Awisa, Nchira and Offuman have vegetable growers associations with the objectives of obtaining agro-chemicals, chemical sprayers and tractor services at lower prices, although they have had limited success so far. Many of these types of organisation are specifically established to benefit from external funding, as donors prefer to give to groups. This is found in many other cases of producer and agro-processor groups and very few of the successful associations survive after the funding (Aryeetey and Appiah, 1995; Coulter et al, 1996; Lyon, 1999a).

6.3.6 Adjusting contracts after price negotiation

Both farmers and traders reported that farmers may decide to sell to other traders who come later with a higher prices. In such circumstances the farmer can empty the boxes belonging to the trader who gave the lower price, into the boxes of the new trader. This can cause considerable delays to traders.

“If cars come a lot and a trader comes later, she sees that she will not get a load so she offers a higher price. When this happens, the brothers and sisters of those harvesting rush to the farms to tell the farmers and then take new boxes to them and empty from the old boxes. They will tell the old traders they cannot harvest for them. The first traders then have to buy from other traders or farmers so that she can fill a lorry” (Ama Boahemma, Tanoso trader, Interview 2)

“ Sometimes I offer a price, give boxes out to farmers and new traders come and offer higher prices. Farmers then divert tomato to the new traders and bring me empty boxes. In some cases the boxes get lost. ... The driver still charges me based on the initial number of boxes he bought here.” (Aso, Tanoso trader, Interview 5).

The farmer can request the trader to increase the price before they dump the boxes and, if she is not willing, then they harvest for the trader with the higher price. If the first trader is a customer then the farmer may act differently:

“I took her (customer trader from Wenchi) boxes for harvest at an agreed price but the Accra people later came with higher prices. I wanted to harvest for the Accra people and so I approached her to increase her price but she begged and explained that she can’t increase it because it sells cheap in Wenchi. I understood and harvested for her at the lower price because she is a customer and I knew she would continue to buy from me when the tomato is abundant” (Stephen Asare, Kokoago farmer, Interview 6).

“They (the farmers) do this to local traders as well. That is why I help farmers. If traders come late and offer a better price then farmers can get new boxes but they will still fill mine and instead empty the boxes of the Kumasi traders” (Ama Boahemma, Tanoso trader, interview 2).

Once the harvest has been done the traders can bargain with the farmers over the quantity and quality. At this time the farmer is in a weak bargaining position as the produce has been harvested and it may be difficult to store. Farmers often give gifts or extra produce to traders in order to build up a customer relationship. This is referred to as a ‘dash’ and at times it can be demanded by the trader. In this way the bargaining process is carried out after the sale and is based on quantity rather than price. The concept of ‘dashing’ is found throughout all the marketing systems for almost all commodities in Ghana and all of west Africa. It has its roots in the earliest trade and De Marees refers to it in his account of trading in 1602 (De Marees, 1987). Van Dantzig and Jones (1987:47) suggest the term originates from Portuguese, or from Akan words meaning gift or thanks.

6.3.7 Grading of produce

The acceptance of poor quality depends on the relationship with the trader. If the trader is a regular customer, then they might be more lenient when there is scarcity, although they would expect the quality to be better when there is a glut. On the farms the harvesters separate the soft varieties, rotten, insect damaged, unripe and over ripe tomatoes from the acceptable produce. Farmers like to be present at the harvest to

ensure that the quality is good enough and, if they need extra labour, they prefer to hire other vegetable farmers as they know what to discard.

Farmers were observed to be grading tomatoes within each box. Unripe ones are placed at the bottom and it is commonly stated that the lack of ventilation will make them ripen sooner. Bigger ripe ones are placed along the gaps in the boxes and nice looking fruit of the preferred varieties are placed on the top. This is also a way of hiding poor quality produce. The traders prefer the riper ones, despite the risk of damage, as the produce will reach the market the next day and be sold that day. By having to store green tomatoes until they ripen, their capital will be tied up which will limit their business. However, some retailers like to have some less ripe ones which they can sell over a longer period.

The amount of lower quality produce in the bag or box can also depend on the amount of produce that is ready for harvest. If a farmer needs to fill a box but does not have enough of the best quality, he or she will be forced to fill up the crate with lower quality produce or risk the price being cut due to the smaller quantity.

“The price was low [C55,000 instead of C60,000] because the harvest was not too ripe and I could not fill one box with ripe ones” (Kofi Gyansa, Dwomo farmer, Interview 24).

One trader complained that she made a loss as she had to check the produce in the evening when it was dark and ended up buying a variety that was not popular with the retailers. The lack of standardised grading means that the quality is subjectively determined and so the trader, or someone she trusts, has to inspect the produce herself as it is being loaded into the vehicle. This may explain why the itinerant traders prefer to travel to the producing areas themselves, rather than relying on buying agents to send the produce to them. Some traders even go to the farm to insist on good quality, although farmers try to avoid this happening.

6.4 Access to market information

Access to information on prices, supply and demand allows the buyers and sellers to bargain more effectively as they know what the other party will accept. However, there is often inequality in access to information in marketing due to the poor communication systems. Alexander and Alexander (1991: 505-6) assert that in Java, it is during the short periods it takes for information to become widely known that traders can make the windfall profits on which their income depends. This was also found in this study as shown by the different margins that the traders can obtain. (See table 6.1 and 6.2). The changes in market prices from day to day are shown in figure 6.2 . This shows the need for up to date information and the dramatic changes in prices reflect the changes in supply to markets creating gluts. The short term gluts and over-supply could be avoided with better information, although the gluts from over production are much harder to avoid. When looking at monthly prices, the differences between markets is much smaller and the market prices appear to be reasonably well correlated (see table 6.3). This indicates that there is some information flowing between markets although the monthly average prices hide the short term differences. Tables 6.1 and 6.2, and figure 6.2 demonstrate the importance of looking at daily prices as monthly averages hide much of the variation.

6.4.1 Traders' information sources

The traders will know the prevailing price of produce on the previous day in the market where they intend to sell and will start bargaining with this in mind. The price in the market is usually based on the supply on the previous days. As tomatoes are highly perishable, all produce has to be sold in a short time and when there is over supply in the market the price drops dramatically.

Traders can also find out about supplies by talking to traders who bring produce to the market and to farmers who have brought their own produce. Traders in Kumasi watch for rural itinerant traders coming from the producing areas. By assessing the amount and quality of the produce, the urban based traders can judge whether the

main harvest season has started and whether it would be worth their while visiting the area.

Table 6.1 Marketing margins between Brong Ahafo and Kumasi Central Market ('000s of Cedis for 75 kg crates)

Date	Where bought	Price bought	Price sold	Transport, tax, fees	Maximum margins possible
1996					
17-18 June	Manso	45	47	4.5	-2.5
2-3 July	Dwomo	25	22	4.5	-7.5
21-22 July	Manso	28	35	4.5	2.5
22-23 July	Dwomo	22	40	4.5	13.5
22-23 July	Manso	30	40	4.5	5.5
28-29 July	Manso	24	30	4.5	1.5
29-30 July	Dwomo	20	30	4.5	5.5
28-30 Sept.	Dwomo	14	13	4.5	-5.5
13-14 Oct.	Dwomo	14	20	4.5	2.5
24-25 Nov.	Dwomo	6	8	4.5	-2.5
25-26 Nov.	Manso	3.5	9	4.5	1.0
26-27 Nov.	Dwomo	6	11	4.5	0.5

Table 6.2 Marketing margins between Brong Ahafo and Accra (Makola) market ('000s of Cedis for 75 kg crates)

Date	Where bought	Price bought	Price sold	Transport, tax, fees	Maximum margin possible
1996					
9-10 June	Dwomo	48	65	8.5	8.5
10-11 June	Dwomo	50	60	8.5	1.5
12-13 June	Dwomo	60	62	8.5	-6.5
16-17 June	Dwomo	55	80	8.5	16.5
17-18 June	Dwomo	50	80	8.5	21.5
23-24 June	Dwomo	60	65	8.5	-3.5
24-25 June	Dwomo	60	65	8.5	-3.5
26-27 June	Dwomo	40	68	8.5	19.5
1-2 July	Dwomo	30	55	8.5	16.5
3-4 July	Dwomo	35	60	8.5	16.5
8-9 July	Dwomo	52	75	8.5	14.5
10-11 July	Dwomo	60	80	8.5	11.5
14-15 July	Dwomo	40	85	8.5	36.5
15-16 July	Dwomo	30	80	8.5	41.5
17-18 July	Dwomo	20	82	8.5	53.5
21-22 July	Dwomo	20	50	8.5	21.5
22-23 July	Dwomo	20	45	8.5	16.5
23-24 July	Dwomo	25	40	8.5	6.5
29-30 July	Dwomo	20	38	8.5	9.5

Figure 6.2 Daily tomato prices in Kumasi Central Market

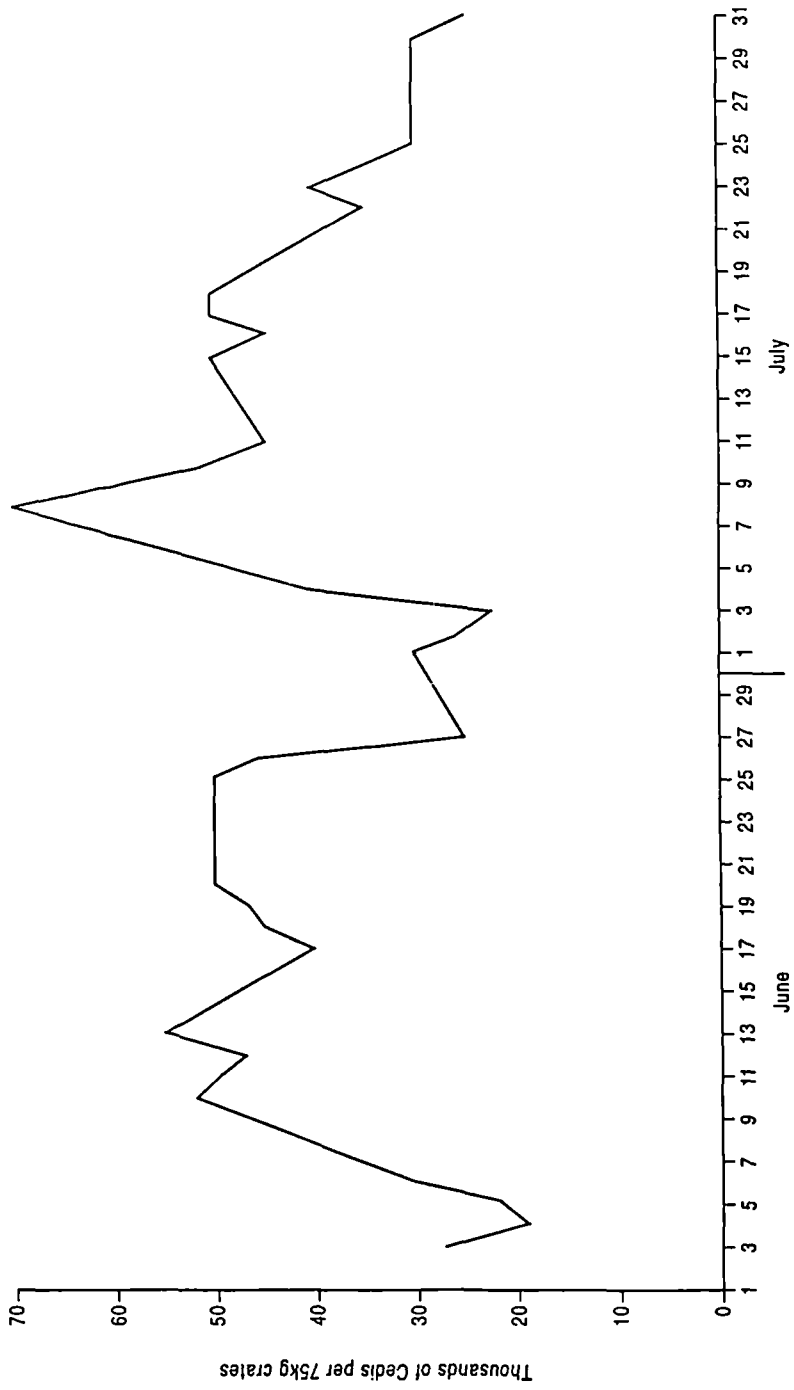


Table 6.3 Correlation coefficients of main markets in Ghana using prices of tomatoes averaged over the month (1983-1994)

	Kumasi	Sunyani	Tamale	Tema
Accra	0.67	0.67	0.60	0.87
Kumasi	-----	0.70	0.55	0.80
Sunyani	-----	-----	0.68	0.87
Tamale	-----	-----	-----	0.67

Source: Floyd, Warburton and Gray (1996)

There appears to be a fairly free flow of information within Kumasi Central Market vegetable sellers association and this is supported by Clark's (1994) study on Kumasi traders. The supply of such information is a way of building up reciprocal ties with fellow traders. Traders in the same market usually refer to each other as colleagues, rather than competitors.

If a Kumasi trader buys from an area with a low price she may take other traders back with her on the following journey. This will certainly raise the price but the farmers will recognise the benefit and ensure that the original trader gets adequate supplies of tomato first. This will also be important in building up 'customer' relationships with the farmers.

Outside the market, the traders can share information when they meet on the way, either on the road or when passing through villages. For traders from coastal towns and the Western Region, Kumasi plays a key role in the spread of information as traders from all over the south of Ghana may pass through there to buy crates, arrange transport and gather information from other traders and drivers on the supply and price situation in the producing areas.

The Awanaga area is the main meeting point. This is named after the Ga carpenters who are based there and produce boxes for traders. Also there is the GPRTU (Ghana Private Road-users Trade Union) Tomato Cargo Branch that arranges transport for traders. Vehicle drivers can be useful sources of information on areas of cheaper and more abundant supplies.

Farmers themselves may be an important source of information for traders. At the beginning of the season farmers with good relationships with buyers send a message to the traders telling them the harvesting has started in an area. This is done in person or by sending a letter. Some groups of farmers in villages will put out a message on national radio to announce that the vegetables are ready to buy. This is more common among the garden egg producers but has also been done by the tomato farmers in Awisa.

When farmers find that there are no traders coming to the village during a main harvesting period, a group will select a representative to go to the market to bring traders. This is done as a last resort because the farmers put themselves in a very weak bargaining position as they have to set the price before they leave with the trader. The farmers will share the cost of transport and they will receive all the boxes that they require when the traders arrive. Other farmers can get boxes if there is any room left in the vehicle. The farmers go to the market itself, or in Kumasi they may go to Awanaga where the vehicles used in transporting tomatoes are based. At other times the farmers go to the trader's house, especially if she lives locally or in a nearby town. If the traders are not willing to come to buy then the farmer representative will go to other smaller markets.

Traders can also get information from farmers as they pass through a village and some traders may drive around several villages before returning to the one with the lower price. A young farmer in Dwomo stated that:

“The traders came here and we offered them 30 [C30,000], the traders then went on to Techimentia to check the price and came back and offered 25 I managed to get 27 from the Tepa traders” (‘S.K.’, Dwomo farmer, Interview 1)

The national radio is also used to make announcements about the weekly price of commodities in various markets in Ghana. None of the traders used this as a source of information as they claimed the details are not accurate and it is broadcast when they are at work. The price that is quoted is an average price collected by Ministry of Food and Agriculture staff over a week and broadcast on the following Wednesday. There

are major daily price fluctuations and the price may have changed by the time the price is broadcast. There were reported cases of traders who had used this price information and arrived in Kumasi with an empty lorry, only to find that the price had risen steeply and they had to return having made a considerable loss.

Traders also complained that the units used in measuring the prices were not the same as those that they used. The tomato traders use crates ranging from 70- 80 kg with a small number using smaller crates. The price data collectors document the price for 70-80 kg crates but claim in the broadcasts that the prices are for 52 kg crates. In one case during the data collection for this thesis, a data collector was found to be collecting the prices of large and small crates and then taking an average.

6.4.2 Farmers' information on prices

Farmers have more restricted access to information as they are based in rural areas. Price information is especially limited for those farmers who were off the main roads as they have less contact with other people. In this study, it was not possible to ascertain whether there were any gender differences in access to price information

Farmers may send a representative to the market to find out the price. They will not bargain with traders in the market as this reduces their bargaining power, but will find out the price that the traders are paying those farmers bringing their own produce to the market, and the price that the itinerant traders are selling at. However, the market prices can change abruptly and traders have more up-to-date information:

“I sold to a local trader going to Techiman. I wanted to sell for C30,000 but the trader said that the price was falling in Techiman so she would only buy at C28,000” (Kwame Asare, Manso farmer, Interview 28).

Information can also come from villagers who are returning from the market on other business.

Information on prices from neighbouring villages is the most important source and allows farmers to make sure that their prices are within the same range. For example

in Manso the farmers may watch the price changes in Tuobodum, 6 km away, as there are more traders going there and some larger farms. The farmers in Nchira can send someone to Awisa (20 km away) or Offuman. In Dwomo, they go to Techimentia (2 km away) as that town is in touch with the other major producing towns such as Derma and Akumadan:

“It was C40,000 in the morning but some farmers went to Techimentia to check on the price and found that it was C50,000. They found some traders from Takoradi there who offered them C50,000 so they brought the boxes back.”
(Martin Addae, Dwomo farmer, Interview 4).

The informal farmer associations may use contributions to the association to send someone to one of the other main producing areas. The person who was bargaining on behalf of all tomato farmers in Awisa stated that he sends a small boy to Tuobodum and Akumadan to find the price. The spread of information follows the main roads with certain villages acting as important nodes. Akumadan, in Ashanti Region, is a very well established tomato growing area and is used as a source of price information by farmers in villages in the Wenchi and Techimentia areas.

The supply of tomatoes in the system can be assessed by how readily the traders accept the price offered to them on the previous sale. In periods of scarcity the traders may accept the farmers price immediately and the farmers know that they can ask for a higher price next time. When there is an increase in the supply of tomatoes elsewhere, farmers can also tell:

“Farmers may expect me to come back but if I find another trader who is buying from farmers at a lower price then I will go with them. The farmers in the high price place will know that there is plenty tomato around” (Effia Quaye, Kumasi trader, Interview 2)

“When traders come they ask our price and if the cars rush off to other areas then we know the price is cheaper there.”(‘SK’ Dwomo farmer, Interview 1).

The number of traders who arrive and the quantity of vegetables that they want to buy indicates to the farmers the bargaining position they are in. Traders will want to fill

the lorry up in one place and so will be willing to pay higher prices to entice more farmers to harvest:

“There were so many traders that day and few harvesting so the price went up to C40,000” [before the price was C25,000](Kwame Afrifa, Dwomo farmer, Interview 4).

“The trader could not come so I had to sell at C35,000 and the day before the price was C50,000” [the price went back to C52,000 two days later] (Kofi Johnson, Manso farmer, Interview 8)

6.5 Institutions for access to finance for trade

Most traders are reliant on their own capital that they have built up over time. Clark (1994) documents the processes by which traders change their roles in the marketing system as they accumulate more working capital and can move from being hawkers to retailers to itinerant traders. Some women also start by being assistants to mothers or aunts who are itinerant traders and then start their own trading once they have gained some experience. Money can also come from relatives, husbands or ‘sugar daddies’. None of the traders reported that they had credit from the bank. The banks reported that they are giving increasing amounts to traders but it is limited as they perceive trading as risky and the traders do not save money at the banks but prefer the *susu* system. The traders also feel constrained by the lack of personal contacts in the bank that they say are necessary to get loans.

The survey found that a large majority of the farmers were giving some of their produce to traders on credit, although this is usually a small proportion of the total harvest. This is shown in table 6.4 and table 6.5. At times farmers will give all their produce for a whole harvest on credit to one trader and then collect the money at the end. More farmers give on credit in those villages that sell more in local markets such as Akete and Kokoago. These farmers are more likely to have close customer relationships and they can easily find the traders if they are not paid. Produce is often given on credit to the rural based itinerant traders selling in urban markets. These traders know the farmers well as they live nearby.

Table 6.4 Farmers giving tomatoes to traders on credit

	Number of farmers interviewed	Percentage of farmers giving to traders on credit
Tano Boase	20	95.0%
Pamdu	20	70.0%
Techimentia	40	47.5%
Tanoso	28	57.1%
Akete	27	74.1%
Kokoago	24	75.0%
Total	159	66.7%

Table 6.5 Traders obtaining tomatoes from farmers on credit.

	Small town 16 interviewed	Kumasi Central Market 12 interviewed	Asafo market, Kumasi 4 interviewed	Accra: 31st December and Agbogbloshi 5 interviewed	Total 37 interviewed
Yes	50.0%	66.7%	100%	100%	67.6%
No	25.0%	0	0	0	10.8%
Don't know/ unwilling to answer	25.0%	33.3%	0	0	21.6%

During times of glut, when the farmers are not able to find a market, they may ask the trader to take on credit rather than run the risk of not being able to sell at all, as there are no storage facilities. In such cases the farmers are in a very weak position and may have no choice but to give on credit and hope that they will be paid.

“When in abundance, farmers will beg us (traders) to take now and pay later”
(Anna Kwatima, Kumasi trader, Interview 31).

“During the major tomato season, they (traders) buy on credit but pay cash during the lean season. They have power in the major season because the tomatoes are in excess supply by then. In the lean season, we, the farmers, have the power” (Adam Issahaku, Akete farmer, Interview 22).

During the periods of abundance, the traders can also force the farmers to sell on credit by arranging a price and waiting for the farmers to harvest before telling them that they do not have enough money:

“She doesn’t tell us from the beginning that she’s not got the money to pay us, but at the farm she tells us no money ... We give to her because after harvesting there is nothing we can do with the tomatoes” (Augustine Tabiri, Kokoago farmer, Interview 19).

“Because there are no factories here to buy the tomatoes, I sell to any trader who comes to town. For instance, if I harvest and it is getting dark, how do I refuse to give to trader who wants to buy on credit” (Adepa, Tanoso farmer, Interview 12).

Credit can also be given at times of scarcity, when the price rises and traders do not have enough money to buy all the crates they require. This can happen when the price changes suddenly, or when the trader made a loss on the previous trip:

“Wednesday two weeks ago I lost C400,000 ... I got the money back by going to the farmers and telling them that I had lost I got the money back in 2 weeks” (Adua, Kumasi trader, Interview 28).

This form of credit allows the traders to start trading without large amounts of capital and continue after a loss.

The importance of having customers at times of crisis was demonstrated by a trader who was stranded in Manso. She came with 80 boxes but was not able to fill them immediately. When she came the price was C15,000 but 4 days later the price was C23-25,000 and she did not have enough money to fill all the boxes. She could not return with empty boxes as the driver was charging for every box, whether full or empty.

The length of time that the traders take the goods on credit ranges from a few hours to several weeks, with a few cases of traders taking all the produce of the farmers on credit and then paying the farmer at the very end of the harvest. The itinerant traders sell to retailers on credit so the farmers are repaid when the itinerant traders have

been repaid themselves. Repayment will also depend on the frequency with which the trader comes to the village.

The traders can try to renegotiate the price when they return with the money, claiming that they made a loss in the market or the price was low.

“I bargained for C60,000 but the trader from Accra bought the boxes and would pay later. Later I was paid C50,000 because according to them the expected price in Accra was low” (Martin Addae, Dwomo farmer, Interview 17)

The farmers usually do not have the means to check this and it can be a cause of dispute. It also allows the trader to pass the risk of trading onto the farmer. The trader will ask the farmer to reduce the money that they are owed or give the full the amount and ask that the farmer give her some back. The farmer may wait until the trader has been to the market again and be repaid in instalments:

“Last week I lost heavily in Kumasi as there was over supply .. and I was not able to pay ... but I have been trading for ten years so the farmers trust me and let me take another harvest to sell before I bring the money”. (Akwia, Techiman trader, Interview 8).

Some farmers gave on credit the next time, but at a lower price, so that the traders can make a profit. If the trader is a customer, the farmer is in a weak position because they need the support of the trader for financing the next season and to buy from them during the periods of abundance.

Some farmers will send a representative with the trader to the market to collect the money if they have been underpaid. However, this is only feasible when there are a large number of farmers who have been underpaid. Smaller scale farmers may not have the resources necessary to follow the traders on their own, and women may not be able to go due to other obligations. There were several reported cases of the farmers' delegate colluding with the traders or taking some of the money for himself. The other farmers have to wait for the traders to come the next time before they can find out the truth.

When a trader does not return, farmers have to go to the traders' house or wait until the trader or driver passes through the village again. However, traders who have made a large loss and want to continue in business will send daughters or nieces to buy for them in the villages. If traders are not willing to pay, the farmers can threaten to take them to the police or even have them arrested. Farmers stated that this action cannot be followed for local traders because as one farmer said, "they are our own". One case of using collateral was reported by a farmer. A trader told the farmer that she would have to take some of his crates on credit as she had run out of money. She left her cooking utensils with a promise that she would come back in three days time, but she never did.

When farmers have a choice of whom they give to on credit, they have to ensure that they will be paid later. The basis of trust is familiarity and long term trading relationships. Through continued dealings with a trader, a farmer will know how she treats farmers and whether she is likely to return:

"Farmers get to know us (traders) from the first day based on how you pay them. For instance, if you promise to pay on a certain day then you don't for a few days ... then they won't trust you" (Ama Lotsu, Wenchi trader, Interview 14).

"Usually we give to traders on credit because of the trust we have in them. When a trader comes here first week, second week, and then comes about four times, we see that the person will be able to pay us back if we give to her on credit" (Sule Musa, Tanoso farmer, Interview 1).

Farmers stated that the most important information is the location of the trader's house and where they sell so that they can be traced. Several farmers reported that they had been taken to the trader's house before they agreed to give on credit:

"She (a Wenchi trader) asked me to go with her to Wenchi and see where she lives and sells at the market. She did this so that anytime she buys and is not able to pay ready cash, I can trust and give her" (Kwabena Boateng, Kokoago farmer, Interview 18).

“If they fail to turn up, we know where they are so we can chase them up”
(Daniel Nsiah, Derma farmer, Interview 23).

While farmers may be forced into giving on credit because of the lack of alternative traders, some are also obliged to sell on credit to traders resident in the village or who are long term customers:

“Normally I do not depend on one trader. Sometimes when a trader becomes too familiar they will one day buy on credit and come back to tell you that they sold at a loss. It is best to be changing customers” (J. Pipim, Tanoso farmer and school headmaster, Interview 13).

Women farmers living in the village of the trader may feel obliged to give on credit especially if they are traders of some kind. One farmer referred to the need to help a trader as she was a tomato trader once and so has to help her ‘sister’.

Many traders use drivers or other farmers as guarantors or ‘*agvinamu*’. The farmers will take down the registration and details of the car so that they can locate the trader through the driver if necessary. Local traders or assemblers can guarantee the payment and they may even pay the farmer cash and give the goods on credit to the trader themselves. Farmers act as guarantors if they know the trader already and have a strong customer relationship.

“When boys refuse to sell on credit, the traders fall on certain men who know their houses in Accra. If the traders don’t come then the person they fall on has to go to Accra to collect all or some of the money” (Samuel, Tuobodum farmer, Interview 2).

Some of the farmers’ associations have developed close links with the traders’ associations so that they can obtain help from the elder traders in following up debts. Traders value the reputation of their association so members will put pressure on a defaulting trader who has not repaid farmers as the case may jeopardise the business of all members.

6.6 Conclusion

The institutional aspects of the marketing system show how farmers' and traders' enterprises can survive in very difficult conditions. In order to compete effectively with others, each actor has to be able to draw on a range of customers and contacts so that they can get access to key resources such as transport, information and credit. The tomato marketing system has therefore evolved over the years and developed its own procedures and bargaining processes. Two issues that shape each actor's ability to function are the relationships of trust and the power relations that open opportunities and place constraints on others as well. These two themes are developed in the next chapter which looks at the marketing systems in the urban areas and the central significance of the trader associations. This illustrates more formalised forms of cooperation.

Chapter 7 Institutions of marketing in urban areas

7.1 Introduction

This chapter is concerned with marketing institutions in the larger towns and cities. It is based on data collected in Sunyani, Kumasi and Accra markets. The urban markets are heavily influenced by the traders' associations that organise traders and have powers over price negotiation, dispute settlement and supply control. They play a role in shaping the retailing and portering system especially in Kumasi Central Market. These institutions manage to sustain themselves when other group marketing activities are very limited, and so this analysis aims to explore what their roles are and how they are able to sustain collective action.

7.2 Association structures

Traders' associations are important players in the agricultural markets of Ghana and similar forms have been found in other West African areas (Amonoo, 1975; Gladwin, 1980; Patten and Nukunya, 1983; Onokerhoraye, 1977; Saul, 1987; Smith and Luttrell, 1994). Of particular interest in this chapter are the reasons why such groups or associations arise, what determines their structure, how certain types of groups in certain settings sustain themselves and why others fail. In asking these questions, I draw on Granovetter (1994) and attempt to go beyond the functionalist or teleological answers that suggest the motives for forming these institutions explain their occurrence. Much of the New Institutional Economics empirical work makes the implicit assumption that institutions exist purely to minimise transaction costs while ignoring the limitations and opportunities that are the result of differing access to resources and power. I pose a similar question to Granovetter (1994) who asks why "in every known capitalist economy, firms do not conduct business as isolated units, but rather form cooperative relations with other firms" (ibid: 454)¹.

¹Granovetter refers to business groups which he defines as a "collection of firms bound together in some formal and/or informal ways". He excludes the sets of firms

There has been long standing debate over the role and benefit of associations in business. Politicians and the media in Ghana, and elsewhere in the world, have been highly critical of these associations in the past, drawing on preconceived ideas that treat traders as scapegoats without the backing of research into the impact of marketing systems² (Hollier, 1985). However, there are a range of other roles that associations play which can minimise the transaction costs of the individual members through what Schmitz (1995) refers to as ‘collective efficiency’. In recent years there has been a growing interest and acceptance of traders’ associations. They are seen as an important part of civil society mediating between the public and private sector in the context of liberalised economies (Moore and Hamalai, 1993: 1895).

There is a long history of traders’ associations in Ghana. In Kumasi, Clark (1994) found that their origin was linked to the vacuum created when the colonial authorities restricted the influence of chiefs over market affairs after the 1900s (ibid: 251). In the pre-colonial period there were reports of “powerful guildlike organisations [that] gave the trading magnates or *abirempon* political influence” (ibid: 87-88). Clark also states that their roles were formalised between the 1930s and 1950s, linked to the construction of wholesale yards. Gore (1978) found that the Koforidua market associations flowered in the Nkrumah regime (1957-1966) as growth was encouraged to mobilise local political support.

Traders’ association roles include welfare of the traders, reducing conflicts, controlling supplies, establishing an arena for setting prices, spreading information to traders and representing the traders outside the market. Of particular interest in Ghana

bound by short term strategic alliances and those firms which are legally consolidated into a single one.

²There is a long tradition of such perceptions, including Adam Smith’s much repeated statement in *The Wealth of Nations* that “people of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the publick, or in some contrivance to raise prices” (Smith, 1776/1976: 145).

is the structure of these associations with their formal leadership that draws on traditional chieftaincy structures³.

In large markets, each commodity has an association and is led by an *ohemma*. In the context of markets, *ohemma* can be translated as market queen, although the term is taken from the traditional title given to the leading woman of a chieftaincy. The *ohemma* is chosen on personal qualities such as age, emotional reliability, familiarity with market affairs, skills in negotiation and dispute settlement, financial independence and wealth. Wealth is important so she can afford the time to carry out her duties (Gore, 1978: 292). She is not paid a wage but receives gifts in kind; the tomato queens receive a number of tomatoes from each crate sold. In Kumasi market she is elected from amongst the elders for life but can be rejected or “destooled” (Clark, 1994) while in Sunyani the present *ohemma* for tomatoes was put in place by the *Sunyanihemma* (the *ohemma* for the chieftaincy of the Sunyani traditional area).

Assisting the *ohemma* are a group of elders, *paninfo*, who advise and help her. In Kumasi Central Market the associations for different commodities also employ a secretary, usually male. The secretary of the tomato association started the job when his mother was the old *ohemma*; he is treated as one of the elders. He is paid according to how many crates come in. His role is to document the number of crates each trader brings to avoid disputes later. He takes notes at meetings and deals with contacts with the Kumasi Municipal Assembly and national bodies.

The associations are divided by commodity but, in most markets, there are associations of vegetable sellers that includes garden eggs and, at times, pepper and okra. In Kumasi the okra and leafy vegetable sellers have a separate association. This may be due to the fact that most of the members are migrants from the north of Ghana, as these commodities are not popular among Akans. The *ohemma* is usually a tomato seller as they are the more important economically. The Techiman market may be an exception as the *ohemma* of vegetables is a dried pepper seller. Pepper is

³ Livingstone (1996:34) found similar titles and structures in a wide range of associations in Ghana.

more important than tomatoes there because of Techiman's special role as a relay market for less perishable produce.

The associations in each of the markets studied cover retailers, resident wholesalers and itinerant traders. Within the formal association there are informal groupings of retailers, itinerant traders and sedentary wholesalers who each select two or three traders to bargain on their behalf. There are also divisions within each group based on seniority and privileged access to marketing opportunities.

The groups are more homogenous in terms of ethnicity and gender, which is seen as an important reason for their long term sustainability. Membership is relatively fluid as some traders may stop for a period and then return. There is a registration fee when starting called the *amanten nsa* (literally the 'latecomers wine'), which is higher for the itinerant traders than the retailers.

There are also other associations and groups linked to the traders. In Kumasi there are groups of Gao porters from Mali who are responsible for carrying and selling the crates of tomatoes on behalf of the itinerant traders and wholesalers. There are also associations of drivers who make up the Tomato Cargo Branch of the GPRTU (Ghana Private Road-users Trade Union).

The association tries to make the selling as quick as possible for its members. In Kumasi, the 'elders' act as commission agents and play a role in reducing the transaction costs as they sell for some of the itinerant traders and farmers. They are always present in the market and so allow the trader to visit the farm again or rest while the produce is being sold. Much of the trade to retailers is done on credit with the retailer paying back later that day or occasionally the next day. The commission agent has the important information of the credit worthiness of the retailers and the location of their stalls so that the money can be collected.

7.3 Services and roles of the traders' associations

This section will look in detail at the roles and services of the traders' marketing associations. While an understanding of the services and roles of associations can explain why the members want to have an association, they do not explain how an association is established and sustained.

7.3.1 Welfare

When asked about the role of the associations, the consistent reply from traders is that they are there for welfare reasons, and for support of members at funerals for their relatives. Social implications of funeral attendance revolve around status for the bereaved person and their family. Prestige is gained when someone of high status, such as the *ohemma*, comes to the funeral with a large number of her fellow traders. In economic terms, associations assist the bereaved with contributions from the other traders (C500 each in 1996). This can be used to defray the cost of the lavish funerals expected among the people of southern Ghana and especially the Akan groups. Those who do not contribute will not have help when they are bereaved and may also suffer from a lack of support in disputes in the market.

In his study of Koforidua market, Gore (1978: 292) refers to funeral donations as an insurance scheme to ensure that a trader's working capital is not lost and Dennis and Peprah (1995) refer to it as a 'cushion' for unpredictability. Livingstone (1996: 33) suggests that mutual aid groups are an extension of cooperative work that exists at the level of the household, especially for women. The importance of welfare roles of associations are also stressed by Gyekye and Chinbuah (1995, cited in Livingstone, 1996) in their study of cooperatives and associations. They claim that most associations exist for members "to help each other meet individual goals, provide a kind of collective insurance, assisting each other in times of need, or bereavement". A similar point has been made with respect to associations in Kenya (Haan, 1998).

7.3.2 Reducing transaction costs

The transaction costs relevant to traders include information about prices, production, reputation of other traders and farmers, transport⁴ and calibration of weights and measures, as well as dispute resolution (Harriss-White, 1996: 340; Whetham, 1972: 88). Smith and Luttrell (1994: 330) in their study of the *egbe* associations in Ibadan, Nigeria, found that the “associations’ regulatory activities in the rural markets and contractual arrangements with transporters enable their members to have greater information concerning rural purchase prices and transport costs, and hence to some extent prices in urban markets other than their own”. This information is not disseminated formally but through gossiping with other members of the association with whom they have built up social relations over some time. Menkhoff (1994:119) also comments on the importance of gossip as an efficient ‘information service’ among Chinese traders’ associations in Singapore. However, the use of gossip is quite discriminatory and not all members of the association have equal access to it. Farmers frequently complain that traders do not tell their colleagues if there is a large supply of tomatoes in one area as the price may then increase when more traders arrive. This was denied by traders

Information is also needed for extending credit and members of the association know the credit rating of their colleagues through observing them over some time. Similar situations are described by Clark in Kumasi market where other traders will encourage repayment to protect their general reputation and know not to support those with outstanding debts (Clark, 1994:222)⁵. In this way associations can be seen

⁴ Transaction costs can be lowered by helping traders get access to transport. The association will negotiate with the transport union over the price of transport per box. Smith and Luttrell (1994: 329) note that associations in Ibadan contract transporters for their services and for insurance in case of damage or loss of goods. They also act as transporters of last resort when there is a disruption of regular services, providing alternatives that the traders would not have time or energy to seek out. This was not found to be happening in any of the markets studied.

⁵ Dennis and Pephrah (1995:46) show that being seen as a member of an association improves the traders credit rating. Smith and Luttrell (1994: 330) report that in Ibadan, “*association members have a great deal of information about each other and their business activities, and hence have no difficulty ... in screening potential borrowers*

as brokers of trust. Unlike the orange sellers in Kumasi Central Market, mentioned by (Clark, 1994: 223), the tomato association does not operate a formal system with credit recorders and collectors, although the existence of the association reduces the risk of lending and allows the traders to lend greater amounts to each other.

The credit flow system in the Kumasi Central Market for tomato traders centres on the role of the 'Gao' porters (see section 7.5.1 for a detailed discussion). The retailers take the goods from the itinerant traders on credit and the Gao will collect the money later in the day. The Gao build up links to the retailer and they are responsible for collecting the money.

7.3.3 Settling disputes

The leaders of the association are selected for their skills in negotiation and dispute settlement and this allows the traders to work more efficiently, reducing their transaction costs. These costs come in the form of wasted time and the extra costs of ensuring that goods or money are not stolen. This allows traders to operate without bringing in the police or formal court proceedings that are very costly and not trusted by the traders. In settling disputes, both sides openly state their case to the elders and *ohemma* who decide who is to blame and what action should be taken. Clark (1994) describes a range of conflicts in Kumasi Central Market in detail and stresses the importance of group solidarity and respect for the *ohemma* in settling disputes. One of the main punishments or deterrents is the bad publicity and damage to a traders' reputation or creditworthiness.

The power of the association in settling disputes does not extend outside the market itself. There is often conflict between traders when at the farm gate. This was frequently observed when one trader arranges a price and another trader comes with a higher price and the farmer empties the harvested tomatoes into the crate of the trader

and monitoring credit usage. Furthermore there is no enforcement problem, for the costs of default are significant. The borrower, in effect, puts his or her social standing, business reputation, and business contacts as collateral."

with the higher price. One such case was reported to the Kumasi Central Market *ohemma* and the offending trader was banned for two months. However, the punishment was deemed ineffective as she gave her working capital to a relative to carry on the business for her. Exceptions to the limited power of the association outside the market occurs during the harvesting period in the Tono irrigation scheme in the Upper East Region of Ghana. This is discussed in section 7.4.

7.3.4 Arenas for price setting

Linked to the reduction of disputes, the associations act to establish bargaining etiquette and an arena for bargaining over prices. Traders are frequently accused by the media and public figures of fixing prices but a detailed study of the functioning of the associations in Kumasi and Sunyani does not bear this out. The association is made up of retailers and itinerant or sedentary wholesale traders and representatives of each will bargain on behalf of the others. In setting the price, all the traders have to ensure that the produce being sold will be retailed that day or the next, so they will set the price after knowing the supply entering the market that day. The retailers will consider the farm gate price, the marketing costs and profit margins of the itinerant traders bringing the produce in. The *ohemma* will not play a role unless there is dispute between the two groups that delays the setting of the price for the day.

By setting the price at the beginning of the day, the selling of the produce is easier and there is less bargaining on each crate. The price is set for the early sales of premium quality produce and, later in the day, the prices tend to drop as there is limited storage and there may be difficulties selling the produce the next day when fresh produce has arrived at the market. If the price is set too high at the beginning of the day then the drop in price will be greater as itinerant traders will try to clear their stocks.

There are opportunities for the retailers to bargain if the produce is perceived to be below premium quality or it is later in the day. The Gao men may be bargaining when representing the itinerant traders although they have to get approval from the trader or

an elder of the association before reducing the price. This supports the findings by Gore (1978) and Clark (1994: 249) that direct price manipulation by market leaders and associations is very limited.

In the part of the Kumasi market which depends on tomato farmers coming to sell through the commission agents, there are no fixed prices and there is bargaining every time with the commission agent mediating. The quality in this market is much better as the farmers do more grading themselves. There are others who grade the produce further and sell in 'rubbers' (black plastic buckets). See table 7.1.

Table 7.1 Prices and quality of graded tomatoes

Price	Quality
C6,000	The very best quality - big, red no damage
C4,000	Big, red, very few defects. The usual top quality
C3,500	Big but cracked
C3,500	Hard but small/medium sized
C3,000	Soft and medium/small sized
C2,000	Rotting and soft
C2,000	Less ripe, smaller and pest damaged
C1,200	Very unripe

Note: Prices given for one 'rubber' (8-9 kg bucket) in Kumasi Central Market August 2, 1996

7.3.5 Controlling the supply

While the traders cannot *fix* prices, they can have an impact on competition, and therefore price, by controlling the supply entering the markets and the number of traders allowed to sell. This has been observed in many West African markets (Bauer, 1963: 391; Gore, 1978: 300; Ministry of Agriculture, 1987: 16; Smith and Luttrell, 1994).

By controlling entry into the market, the traders in the association can increase their bargaining power against other traders and farmers who do not have the option of

selling their produce themselves. This keeps the prices higher for consumers than they would otherwise be, decreases the price for farmers if there are fewer buyers, increases the losses on the farms when there is no market for the ripe fruit and reduces the marketed output of the commodity. Bauer (1963: 37) states that this can reduce national income per head by “hindering the most economical use of resources... [and] retarding the growth and development of the economy”. The political implications of this debate came to the fore in Ghana in 1979 and 1982 when traders were portrayed as the cause of economic difficulties and suffered verbal and physical attacks by agents of the government (Clark, 1994: 216).

Traders state that there are benefits to supply control in terms of reducing over supply. Gluts can result in post harvest losses in the market, in terms of lower value produce being thrown away, as there are limited storage facilities for perishable crops such as tomatoes. Controlling supplies also allows the produce to be sold quickly and avoids congestion from unsold boxes. However, when there is a glut due to a rapid increase in supply, a common occurrence with tomato crops, then it is the farmers who will suffer and have to accept losses.

Traders want to sell quickly so that their capital is not tied up and they can continue to trade. They justify having control over the supply in order to reduce the risk of losing all their working capital from sudden changes in price⁶ as shown in figure 6.2.

One trader stated:

“Last trip to Kumasi I lost heavily as there was over supply ... [the price in Kumasi market was C35,000 for one crate of tomatoes when she left and C15,000 when she returned] ... I took 60 boxes and made a big loss. Now I only have enough for 15 boxes” (Effiah, Kumasi trader, Interview 15).

Capital for trading perishable crops is scarce so such losses will reduce the amount that itinerant traders can market and will increase the margins that they require to sustain their business in the long term. Relatively large amounts of capital are

⁶ This argument has been put forward by Smith and Luttrell (1994), in relation to Ibadan, Nigeria, and Whetham (1972: 89) and Jones (1972) in studies of markets in west Africa in general

required for tomato marketing and the risks are very high compared to other trading activities. The variation in price can be seen from figure 6.1. Dennis and Peprah (1995: 48) justify the roles of associations in Techiman market and state that:

“it may be that some regulation of social and economic relationships is necessary to provide the confidence for traders to expand their operations and risk in a trading system”.

The extent to which this is a form of extracting monopolistic profits and of exploitation of farmers and consumers, or a way of keeping prices steady to protect limited trader capital, appears to be linked to different authors' personal views rather than any clear analysis of data (Hollier, 1985; Harriss, 1982). Evidence to support either side of the argument is lacking. Many studies have shown that there is a certain level of competition and information that flows around the system (Southworth et al, 1979; Gladwin, 1980: 135; Jones, 1972: 105) and go on to suggest that these associations do not significantly alter the competitive nature of food marketing (Smith and Luttrell, 1994). Amonoo (1975: 29) states that:

“In analysing the foodstuff marketing system in the Central region of Ghana, we conclude that the flow of commodities is normally influenced by such factors as rain, drought and harvest, and much less by the institutions that handle the flow ... Indeed, the queens are not really able to regulate the flow and prices of goods because there are no binding agreements between them and intermediaries. It appears that there is no deliberate policy to create an oligopoly.”

However, Harriss (1982) explores the problems with the existing data on food markets in West Africa, and questions the validity of the associated analysis and the conclusions that the markets are competitive, despite contradictory evidence that there are very strong barriers to entry.

This study has found that there are varying degrees of competition which change from market to market, within the market, and from day to day. Limited evidence⁷ does

⁷ Calculations of margins in complex and informal markets are highly problematic and require a detailed study of daily produce price and marketing costs fluctuations (Hollier, 1985: 405-9)

suggest that the Accra traders can have bigger margins, as shown in tables 6.1 and 6.2, and this was supported by many claims of envious traders from other markets. However, tables 6.1 and 6.2, and figure 6.2 show that prices and margins fluctuate dramatically from day to day. All of the traders' association leaders interviewed stated that they wanted to have more control over the market but could not. This supports Gore's (1978: 300) point on the study of collusion in Koforidua food market:

“Trading associations have a clear economic purpose, that is to ensure the survival of their members' businesses and to boost their profits by manipulating prices or supplies. They have all enacted rules to control market conduct towards this end. One cannot but expect it. From this viewpoint of market structure, the critical issue is not whether they attempt collusive action but what factors limit their power”.

7.3.6 Associations to represent members

The traders are working in a political environment and use the association to represent them in dealings with the government and traditional authorities, as well as other market associations and associations of transporters. Much of this work is done by the *ohemma*, or by the secretary in Kumasi market, either formally through written letters or meetings with officials, or informally at public events, especially funerals. The latter are important in building up connections that can be drawn on in times of need (Clark, 1994). When there are official functions to perform that cut across a range of commodities, there is a clear hierarchy of associations, led by the yam sellers.

Links to the local government are important to secure rights to trade. The most important links are to the Municipal or District Assemblies which are responsible for the market infrastructure and collect a sizeable proportion of their revenue from taxes on the traders. Despite the returns coming in from the markets, the selling areas in Kumasi and Sunyani and most of the other smaller markets studied have received very little investment over the years. There are, for example, no covered or paved

areas and no water supply although there are infrastructure projects taking place in Kumasi and Techiman as part of World Bank initiated projects.

The lack of support in the past is linked to the long standing policy of successive governments to see traders as a restriction on development and therefore not an area to invest in. Associations often have to provide the market infrastructure themselves. Southworth et al (1979: 171) reports that the yam traders association in Atebubu, Ghana provided some storage and protection from theft to their members, although Clark (1994:157-9) found that the physical space was limited for any large scale storage in Kumasi Central Market. However, she found that the associations had erected many of the stalls in the wholesale yard and levelled the land in the 1930s (ibid: 251). The associations in Ibadan paid for the improvement of roads around the market when the government failed to do so (Smith and Luttrell, 1994: 330).

Traders' associations also have to lobby the government agencies to secure their positions and barriers to entry. In Kumasi there are the well known cases of the ethnically based trading group of Gaos from Mali who were removed by the authorities following lobbying (Bauer, 1963), although now the powers of the traders associations are much less. Clark (1994: 121) attributes this to the decline in access to political decision making following the lapse of electoral politics in the 1970s and 1980s. There are examples of traders' associations in other countries developing in order to negotiate with government officials. Babb (1989) reports on the groups in Peru and Harriss-White (1993) gives a review of several market systems with traders associations in South Asia; associations in Tamil Nadu have developed as a response to unionised labour, the threat of regulation and the threat from capitalist farmers. In this way the traders are able to gain political power and defend their interests. Harriss White (1993: 61) questions the social costs of these activities to society and suggests that there is a need for legal reform and the encouragement of other forms of civil society such as labourer, consumer and producer groups to regulate the merchants.

Although there is much public rhetoric levelled at the traders' associations by government bodies, the bureaucrats and politicians often prefer to deal with a single representative for the sake of administrative convenience (Moore and Hamalai,

1993:1896; Bauer, 1963:37). There have also been attempts to co-opt the traders into political parties at various times since independence and the present government has set up a national umbrella organisation to strengthen their political base in the small business sector (Haan, 1998). While the leaders of the Kumasi vegetable sellers associations were working with the government initiated organisation, they were not actively supporting it⁸.

The links to the chiefs are also important. They play a role in settling disputes and have control over the traders as they own the land in many of the markets. The traders recognise this and the associations are responsible for collecting produce for the chief every week in Sunyani and particularly at special events. Clark (1994:270) also suggests that the associations and market *ohemma* publicly attend certain events linked to the traditional leaders in order to keep up the image of the market. However, the traders' links to the Asante chieftaincy are ambiguous as they cannot rely on the full protection of customary law but can draw on the chiefly connections when under threat (ibid: 413). In this way the traders' associations are similar to the farmer associations as both have the option to use the authority of chiefs if the need arises.

7.4 Powers of exclusion and controlling the market space

As mentioned earlier, the traders' associations use their control of nodal or key spaces, such as the wholesale yards in the major markets, in order to have greater control over the marketing system as a whole Clark (1994:127). In this way power is exercised by limiting access and membership. The control of the market space differs between markets but it occurs, to a certain extent, in all markets in southern Ghana.

⁸This is not surprising considering the strength of the opposition parties in Kumasi and the history of abuse that many members of the present ruling party gave to the traders, most notably in the early 1980s during military rule. This is compounded with the memory of difficulties faced when the traders were more politically aligned in the 1950s (Clark, 1994: 277).

However, the issue of exclusion is contentious and hard to define. Traders' association elders claim they do not exclude, as long as the person pays the subscription fees and is accepted by the other members. Farmers and other traders not in the association complain of not being able to sell when they want to. The extent of the control also differs, with greater restrictions over entry in the Accra markets. This may be a cause of the higher margins received there (see table 6.2).

A study in Ibadan (Smith and Luttrell, 1994), found that traders were controlling the supply areas by preventing non-members from buying in the rural areas. This was not found to occur in the tomato trade in Ghana except with reference to the supplies from the Tono irrigation Scheme in Bolgatanga in Upper East Region. Tomatoes are produced in the dry season and supplied to the major cities. The elders of the Kumasi and Accra markets have a tight control over which of their members buy from the Upper East farmers and there are many reports of them operating monopolistic control over the supplies from this area. Traders mentioned that this was accepted as a privilege of their elders, although detailed studies were not possible. Their control in this location may be due to the centralised pattern of production at an irrigation site compared to the dispersed production by other tomato producers.

The other traders are allowed to buy from other areas such as Brong Ahafo, although the quality of the produce from these areas is lower. As dry season production in Brong Ahafo is increasing, the control of the Kumasi and Accra traders over the supply of tomatoes to the urban areas during the dry season is diminishing.

Control may also be exerted in the form of limiting the days that each trader can bring produce into the market and the number of crates each trader can bring. This does not occur in Kumasi tomato market but it is an important form of control in Accra and smaller markets such as Sunyani. In Sunyani there are two groups of traders and they have set days when they can bring tomatoes from the towns. The 20 senior traders (*nkwainsofo opaninfo*), are allowed to sell 10 or 15 boxes depending on their seniority. Membership of the senior group is inherited from mothers, aunts or grandmothers. The 45 'junior traders' (*nkwainsofo nkwada*), are allowed to bring in five crates each on Thursdays.

The major traders' associations also try to control supply by allocating days for itinerant traders to bring produce to the market; this is an attempt to ensure that there are no gluts. The Accra tomato markets are well organised with between one and five sub-groups in each market. Each group is allowed to bring in a certain number of trucks per day, depending on the supply on the previous days. However, the ability of the Kumasi market to restrict supply is limited⁹.

The sanctions available to the market association leaders include physical obstruction of the trucks bringing in the produce, confiscation of goods, fines and banning of itinerant traders from the market, although the most common recourse is for the elders or *ohemma* to sell on the offending trader's behalf and take a large commission. In Kumasi the extent of the commission varies, depending on the person bringing the produce and the supply to the market that day. In Sunyani, the action taken depends on whether it is a small amount being brought in by the farmers or if there is a truck load brought in by an itinerant trader. In the former case, the farmer has to accept a lower price and pay the *ohemma* C500 and four fruit per box, while larger scale traders are pressured to leave by the wholesalers and local itinerant traders to avoid the market becoming flooded. There is a conflict of interest within the associations as the retailers want the cheaper produce but the wholesalers and itinerant traders are more powerful.

Local Sunyani traders who break the rules and bring in more boxes of tomatoes than they are allowed expect to have them confiscated and sold. This has also been reported in the markets in Ibadan (Smith and Luttrell, 1994) and Burkina Faso (Saul, 1987; Sherman, 1984). Traders also reported that offenders were banned from visiting the farmers to buy in bulk, although this is not possible to police effectively as these traders may lend their working capital to relatives working in the tomato trade to buy on their behalf.

⁹The garden egg traders of Kumasi had organised this with the farmers in the village of Abesim that specialises in this vegetable and it is also reported among the onion farmers of south east Ghana (Patten and Nukunya, 1982).

The ability to enforce punishments differs from market to market and there are no cases reported of traders using the formal legal system to settle disputes. The ability to enforce punishments and to ensure that all the buyers restrain from buying cheaper produce from non members depends on the strength of the association leadership, the cohesion of the group, the balance of power between wholesalers and retailers, the physical planning of the market and the support of the District Assembly or Municipal Authority.

Accra markets have a reputation for being the most restricted of the large markets in Ghana. The leadership association is strong and they can keep out or penalise non-members using various threats, both economic and physical. One common tactic is to insist on speaking the Ga language, which restricts the possible opportunities for those from the producing areas in Ashanti and Brong Ahafo Region who are Twi speakers. Accra traders discourage others from coming to Accra by spreading rumours about the threats to, and treatment of, non members.

Kumasi market is less restrictive and the division of who is a market association member and who is not is less clear. There are many traders from the producing areas that are also members of the association and allowed to sell there, although these are mainly Akan women. It appears that there is a certain moral economy¹⁰ and as one trader stated:

“Kumasi has been a trading centre for so long so there is a custom that everyone has the right to sell and make a living. If we stop someone then they can go to complain to the Asantehene or [Asante] ohemma.” (Kumasi trader, Interview 13)

Clark (1994:228) also found in Kumasi market that traders referred to the moral right of a woman to earn a living for herself and her children.

The ability to punish through exclusion depends on the physical planning of the market. In Kumasi, there are a number of entrances and three locations for selling

¹⁰ The concept of a moral economy is drawn on heavily by Scott (1976) and even earlier by E. P. Thompson (1971). Granovetter (1994) quotes from Thompson in his discussion on the normative and acceptable behaviour in an economy.

tomatoes which means that traders excluded from one area can sell elsewhere. The main area is by the well established tomato and yam yard while the second is on the other side of the market. The second market used to be in the 'lorry park', or bus station and started in parallel to the main tomato market following the early policies of the Rawlings regime which reduced the powers of the associations. In the early 1980s traders in this second area were ordered to move into the market. They have some links to the main association, although they have set up their own associational structure for settling minor disputes, and have different selling patterns and units of sale. The third area in of tomato sales in Kumasi Central Market appeared in the past two years and is on a site that was previously a lorry park but is now part of the infrastructural improvement programme for the market. The traders have not been moved off the area as the Municipal Authority is raising taxes from the traders there. Similar restrictions on the traders' ability to control the supplies were reported by Gore (1978) in Koforidua and Lyon (1999a) in Kasoa. One Kasoa trader stated:

"This is not like the big town markets where the ohemma can force people ... Here the entire market is not fenced so it is difficult to enforce such a law. Now they are building a market a few miles away - when it is built then maybe we can have those laws".¹¹.

The ability of the association to control the market shifts over time and depends on the access that the traders have to policy makers and local elites. This includes both the government (national, regional and local) and the traditional authority. The District Assemblies have powers that can have serious impacts on the market system. Firstly they are responsible for the planning of new market structures, and secondly they can set up laws that restrict the sale of produce outside the markets. The control of selling outside the markets is based on town planning regulations that allow District Assemblies to specify which economic activities can take place in certain areas. This is enforced by the police. The extent to which such laws are established and followed through depends on the lobbying power of different interest groups. In

¹¹ The new market is part of the World Bank funded Agricultural Sector Improvement Project. The implications of these new markets could entail considerable loss of earnings to many farmers and consumers if the traders are able to exert more monopolistic power.

many cases the local traders are a powerful and vocal lobby that has greater influence than disunited farmers or traders from outside the district.

The District Assemblies are often faced with several competing claims. On the one hand they are dependent on the markets for raising a large proportion of their revenue. This is easier if the markets are structured and organised, with all the traders in one area, renting stalls from the assembly. However, as explained above, this can have implications for both consumers and farmers. The District Assemblies also have to balance the demands of traders to secure their livelihood against the complaints from farmers and traders who are not members of local associations. There is a further complication as the District Assemblies may have a reduction in their revenue if people are restricted from trading.

Farmers can call on the District Assembly if they are restricted from selling in the markets. A case where this occurred was reported by the District Chief Executive in Gomoa, Central Region:

“At times, in Swedru, my people took pepe [chilli pepper] and tomatoes. The queens were dictating what they bring and at what price. I went to see my counterpart, he called the leaders and warned them - he said this was against the law of the land.”

It is interesting to note that this single case involved farmers wanting to sell in a market outside their district, where the DCE had nothing to lose in confronting the traders. It is not known what the outcome was. In other cases the district authorities do not take any action.

The traders lobby the District Assembly by visiting the leaders, electing assembly men to represent market interests and also threatening violence against those non members trying to sell. Another District Chief Executive in the Central Region narrated the following case:

“There was the case of the Techiman yam sellers who came with a lorry and sold cheap yams on the roadside. Local traders tried to restrict them. There was almost a fight and the Techiman women went to the police. Trade associations can be good - it acts like a check, it is like tariffs in world trade.

Whether we like it or not there are cartels elsewhere [in Ghana]. So if you come and sell below the price in the market then you destabilise the market. I told this to the Techiman women - 'yours is temporary', I have to protect my whole market, who will sell at other times otherwise. I told them 'you can sell in the designated areas'. I told my women that we are in a free economy so can't stop people, but they have to play by the rules, so if they have cheap yams, local women traders can buy at your cheap price and sell on. It's hard for us politicians - if we don't protect the women they say we are not in their interest but we can't go against our government policy."

The issue of the District Assembly's role in deciding who has the right to trade raises wider questions about the whole decentralisation process¹². The literature states that it is aimed to give a voice to local people and allow a more participatory form of politics. In reality the District Assemblies are often directed by powerful local lobbies that are empowered by decentralisation but which disempower other local groups. In this case, the traders' associations appear more powerful than the farmers. There are no functioning farmers association as the Ghana National Association of Farmers and Fishermen (GNAFF) does not play an active role and is constrained by its close political ties.

7.5 Institutions of retailing

Retailers in the urban markets can be stall holders who sell on the ground or hawk produce by carrying it around the market, or around other parts of the town. Often the hawkers are daughters or relatives of the small-holders. Women will usually inherit the right to trade in the market from their mothers or aunts and they will spend time learning how to bargain, the conventions of the market, judging quality and quantity, and about getting customers.

¹²The process of decentralisation in Ghana has taken place through the 1970s and then again in the late 1980s and 1990s. Ayee (1994) is critical of the present process and distinguishes between political decentralisation as devolution and administrative

7.5.1 Institutions for portering

Kumasi Central Market has a slightly different tomato selling system from the other markets studied that will be considered separately here. There are a larger number of itinerant traders who are not based in Kumasi, but in the producing areas. They arrive in the market and sell to the retailers through the Gao men. These men are originally from Mali but came to Kumasi as porters. Today they play a larger role; as well as unloading trucks and carrying the produce, they also sell on behalf of the itinerant trader, distribute the boxes of tomatoes to the retailers and go to collect the money at the end of the day. Some may also pay the drivers on behalf of the itinerant traders when the goods arrive and are repaid when the traders collect the money from the tomato sales.

The role of the Gao porters developed because elderly traders could not carry the tomatoes and there was a high rate of stealing from the tomato boxes. As one older trader said: “We found that they [the porters] could be trusted even more than our family members and with any amount of money”. A younger trader claimed: “our mothers invited the Gao and now our mothers have adopted them as their children.” This system appears to have started 20 to 30 years ago. Not all of the porters are from the Gao ethnic group but any person who carries out these tasks is referred to as ‘a Gao’.

The *ohemma* has control over the Gao and can sack them at any time. During the field work she banned two of them from the market for fighting. There are 10 groups of Gao and each is linked to one of the 10 elders. Each Gao group leader has been working with their elder since they arrived and many Gao were invited to live in the same house. The members of each group are brothers or nephews of the leader and the person who introduces a new member to a group is held responsible for their conduct.

decentralisation as deconcentration. Ayea suggests that the early policies in Ghana followed the latter.

Each man in the group will have responsibility for a certain number of boxes, and they will mark these with their initials or nick names. (There may also be other markings on the box relating to retailers who are regular customers.) The traders own the boxes but often get the Gao to buy them and then reimburse them later. They will carry and sell these boxes on behalf of the trader and do maintenance on them after each trip.

In 1996-7 the Gao were paid C2000 per box sold, from which they have to pay the fees to Kumasi Metropolitan Authority and the association. The elders also receive some money and the rest is kept by the Gao. The money is shared among each group and divided at the end of the week. The Gao also receive two to three tomatoes for themselves from each crate as payment. The boxes weigh between 70 and 80 kg and this limits the number of people who are able to do this work.

Gao also sell on behalf of traders who do not want to sit in the sun (see section 7.3.4). The price is usually fixed but the retailers can bargain over quality and ask for lower prices later in the day. The Gao will bargain and check with the seller, or the queen mother if the seller is not there, before finalising the sale. The Gao were paid 6 tomatoes per crate in 1996. Retailers who are far from the tomato yard will need the Gao to carry the box to their stall. The money may be paid later and the Gao is responsible for bringing the money back.

Tomato traders with good links to the Gao send produce to Kumasi unaccompanied. The Gao man will sell it for them and then send the money back with other traders or a driver. They will tie the money up in a bundle with a special knot that will indicate if anyone has tried to tamper with it. Traders do not send produce unaccompanied often, as the price changes so suddenly in the market that they prefer to be there to ensure they obtain a good price.

As mentioned in section 7.3.2, the transaction costs of marketing are reduced as the itinerant traders give on credit to retailers with the Gao acting as guarantors. The itinerant traders would not be able to do this as they do not have the information on the creditworthiness of the retailers, where they sell or where they live. The Gao will

deliver in the morning and collect the money in the afternoon. If the retailer cannot pay then the Gao is responsible for paying the itinerant trader using his own money, or borrowing from other Gao. Alternatively he may ask the itinerant trader to wait for a few days.

There are very few reported cases of the Gao not paying and they are trusted by all the traders. This is because they have been there a long time, the traders work with the same Gao each time and they all recognise their are in a weak and insecure position. If there are cases of cheating then it would be very easy for the elders of the association to stop using them. As they are not from Kumasi, they can get little support to protect their position.

7.5.2 Credit to retailers

The retail system in other markets is based on similar credit arrangements, although without the role of Gao intermediaries. Itinerant traders or commission agents have customer relationships with retailers similar to those between traders and farmers. When giving goods on credit, the itinerant trader is repaid at the end of the day or several days later. If the itinerant trader does not want to wait they can collect the money the next time they come to the market. There were no reported cases of retailers advancing capital to itinerant traders, although this may have been due to the stigma attached to admitting such deals (Clark, 1994).

The extent of selling on credit is shown in table 7.2. The percentage of itinerant traders selling on credit is lower in small towns as many of them are retailers themselves and only sell to consumers. The amount of credit and length of time it is given will depend on the quantity the retailer can sell and the trust between the two parties: A young trader in Wenchi stated:

“We start with smaller credit and when the person is truthful and repays each time she buys, we continue to trust her and give more” (Eunice Amponsah, Wenchi trader, Interview 13).

The itinerant traders need to know the location of the house so that they can follow up any debts:

“I have traded with them for more than five years so I have confidence. I know the house and the town and I can go to visit them when money delays to see if the person is sick or the business is not going well” (Effiah Hemma, Techiman trader, Interview 22).

When selling on credit to traders who work in the same market, the risks are reduced as they are members of the same association, know each other and the close proximity of trading means that they cannot avoid creditors.

Table 7.2 Traders selling on credit

	Small town 16 interviewed	Kumasi Central Market 12 interviewed	Asafo market, Kumasi 4 interviewed	Accra: 31st December and Agbogbloshi 5 interviewed	Total 37 interviewed
Yes	56.3%	83.3%	100%	100%	75.7%
No	37.3%	8.3%	0	0	18.9%
Don't know/ unwilling to answer	6.3%	8.3%	0	0	5.4%

However, most itinerant traders reported that they are owed some money from retailers unable pay as they had lost all their money. The itinerant trader can ask the *ohemma* to help settle the dispute but this may not be possible if the retailer has stopped selling. In one case in Accra, there was a dispute over the amount of money owed and the case was taken to the chief:

“One retailer owes me C365,000 from over 6 years ago. The case is before the elders of the Ga chief. She reported that the total amount is not correct I won the case and she has deposited C200,000 with the elders about 5 months ago. ... I will collect the total amount after full payment” (Comfort, Accra trader, Interview 42).

The chief's decision was accepted by the offending trader because if she fails to comply, she could not expect to get support from the chief or other members of the community in future.

7.5.3 Institutions for sales to consumers

Retail prices are usually fixed for the day for a given quantity, but retailers try to attract customers by changing the quality of the produce, the size of the piles and gifts (dash) given after the sale has taken place. There is a wide range of sizes and qualities and some of the consumers pride themselves on being able to select the best buy from what appears to others to be relatively similar qualities and quantities. Consumers will thus examine the piles of vegetables on a range of retailers' tables or mats before selecting.

The size and the quality of the dash given by the retailers depends on the relationship between the retailers and buyer and it is important in retaining custom. It is often as much as 50% extra, although it may be of lower quality and is taken from a container under the stall so that other potential customers will not see how much is given, and so will not demand a larger quantity when they buy. This creates serious problems for the collection of retail price data.

There is a convention in markets that traders cannot steal customers or people about to buy from other traders. This reduces the potential for conflict and the relationship between retailers is one of colleagues, rather than competitors. Neighbours will look after each others' stall for long periods of time and sell on behalf of their neighbour even when they have similar products.

Retailers can have piles of produce of different degrees of ripeness, as some consumers like to buy slightly unripe tomatoes that will last a few days. There are also different preferences among consumers belonging to different ethnic groups. Retailers will try to sell the slightly damaged and riper ones first, especially if they are not buying every day. This is an important strategy for the retailers in Sunyani who buy from farmers every Thursday and then sell on Friday, Saturday and Monday. The definitions of different quality grades can change through the year as produce gets scarce.

Some retailers process or package the vegetables in plastic bags to make them more appealing. Very little is thrown away with the very low quality tomatoes being sold to those women who prepare cooked food on the street. The low quality tomatoes, sometimes mixed with chilli peppers, are taken to a pulping machine with the pulp collected in plastic bags or pots if the buyer is cooking near by. These machines are run on electricity and managed by men.

7.6 Conclusion

This chapter has completed the examination of the institutional forms of marketing system for tomatoes. Again it demonstrates the wide variety of complex institutions that have evolved over time and are based on a diverse range of social. The cooperative activities of associations have a wide impact on the other institutional forms of marketing in urban areas. This cooperation is based on the trust that comes through working closely together. It is also based on the power that the traders have. The nature of trust and power relations will be explored in detail in the next chapter. The extent to which cooperation is based on power or trust is also examined.

The success of the traders' associations is highly surprising given the fact that they have had to face severe political and economic crises in the past 20 years and they are made up of large groups. These groups have conflicting objectives as subgroups of retailers and wholesalers are in competition with each other. Traders' associations also challenge the view that women always "have less access to resources than men, less education and decision making power which inevitably affects their ability to lead and manage groups effectively" (Livingstone, 1996: 41). The success of certain groups can be attributed to the self identified objectives that are flexible and fluid. This is in contrast to those associations that are set up by government or external agencies and tend to be donor driven and unlikely to survive when the funding finishes (Lyon, 1999a; Coulter, 1996).

The success of associations may also be due to their clear leadership structure, although this may not be participatory and involves exercising control and power.

This is easier for traders' associations in the market place as they control the selling space and can therefore exclude others and have wider effects on the vegetable production and marketing system. In this way their social organisation and control of key locations shapes the spatial organisation of the industry even at a regional level.

On the existing evidence, I do not want to state that associations are beneficial or oppressive for the people of Ghana, be they farmers, consumers or traders themselves. While associations can reduce transaction costs, they may allow traders to get large returns at the expense of poor farmers and consumers. However, the extent to which these large margins make up for the high risk and frequent losses experienced by traders is not known. Many observers have commented on this issue without full information. On the one hand there are those who see the associations as oppressive and restrictive cartels. In Ghana this argument has been repeatedly used by politicians usually responding to individual cases where there have been negative impacts on farmers and consumers. The television pictures of rotting tomatoes are powerful media images.

There are apologists who attempt to justify the role of the traders' associations. Firstly there are authors who, drawing on the work of Jones (1972), examine the performance of markets based on the analysis of price data. Harriss (1982) has shown that many of their studies have conclusions supporting the liberalisation of markets that contradict the evidence they present. Secondly there are those who make detailed studies of the associations by looking at the function they play in reducing transaction costs. I take issue with some of these functionalist New Institutional Economics approaches, such as Smith and Luttrell (1994), that suggest the reasons for the success of an association is based on how much it is needed or in terms of the benefit it brings to its members through reducing transaction costs. Khalil (1994) states that there are many cases of inefficient rules and property rights that persist beyond their economic usefulness which cannot be explained by an analysis of transaction costs alone. The view that institutions are shaped by the minimisation of transaction costs and the drive to efficiency is seen as a form of post hoc explanation (Harriss-White, 1993; Mulberg, 1995) although this is based on a critique of the cruder forms of New Institutional Economics (Acheson, 1994).

The third group of apologists come from a feminist approach that explores the roles and powers of women in the market place (see Clark, 1994 and Dennis and Pephrah, 1995). This approach also leads to questions regarding the role of women's agency and gendered access to power resources. This study shows that women in Ghana cannot be seen as muted subjects, as women's agency can manifest itself in differing ways including oppression of other women and men (Jeffery, 1998: 227).

To study how associations work requires a careful analysis of both trust and power and the interplay between the two. Groups, networks and associations are also hierarchies so cooperation is underpinned by both trust and the different types of power relations within the network (Amin and Hausner, 1997). The role of trust also requires a careful deconstruction to differentiate between acts of cooperation because of perceived long term economic benefit, cooperation because of perceived prestige, obligations and fear of shame, and finally those acts of cooperation that are impulsive and habitual.

Chapter 8. Towards an institutional theory of market relations

8.1 Introduction

This penultimate chapter aims to draw together some of the theoretical implications of the case study material presented in the previous three chapters. The common theme that has run through the range of institutional forms presented in the study, is the importance of social relations in shaping outcomes, and the ways in which economic action is socially embedded. This supports the contention of Moore (1997) and many others that social relations are a central part of institutions in a variety of economies. In this chapter I draw together the material on how social relations are built up, with particular reference to the mechanisms of trust production. Through this I aim to propose a framework for understanding social relations in markets that recognises the embeddedness of economic behaviour and can be used for a better understanding of cooperation, trust and power.

8.2 Mechanisms of trust

Agents have to find ways of reducing the transaction costs of cooperation through having enforceable sanctions and reducing the risk of default by getting information on others. In this context, I use the term agent to include both the individual people involved and groups or organisations.

One mechanism needed for trust is information on the reputations of others. The costs of getting information are a major part of the transaction costs in deciding whether or not to cooperate. This information can come about through links to networks and through previous interactions which allows the parties to know what to expect. The table below summarises the arenas and spaces where there are opportunities for cheating, if relations based on trust are not present.

Table 8.1 Opportunism in vegetable production and marketing

Arena	Potential opportunism
Hiring labour	Do not pay as agreed
Labouring	Do not work as agreed, steal from farmers crops
Nnoboa cooperative labour	Do not work as hard as others, leave the group after your farm has been worked on
Sharecropping	Harvesting without the sponsor knowing
Credit from agro-chemical retailers	Farmers not repaying, buying from other sellers
Savings with agro-chemical retailers	Retailers do not return money
Credit from agro-chemical wholesalers	Retailer does not repay, and buys from other wholesalers
Credit from traders	Not repaying, diverting sales to other traders, not reducing price for trader as agreed
Farmer price setting associations	Farmers selling secretly at a lower price than the committee has fixed. Farmer representative colludes with traders
Bargaining	Farmers and traders withholding information on supply or prices from the other party
Paying for produce after harvesting	Traders reducing the price negotiated with farmers after they have harvested
Diverting harvested produce to traders with higher prices	Farmers negotiate a price to harvest for some traders and more traders come offering higher prices. Farmers dump the earlier traders' boxes and harvest for the higher price
Low quality produce	Farmer hides grass, rocks and unripe or damaged tomatoes in the crate
Traders take on credit	Traders ask to take on credit and do not return. Traders return saying the price was low in the market and so cannot pay the full amount
Trader associations	Trader does not cooperate with association members. Stealing customers of other traders in the market
Sales to retailers	Retailers fail to pay later when taken on credit or cannot pay the full amount

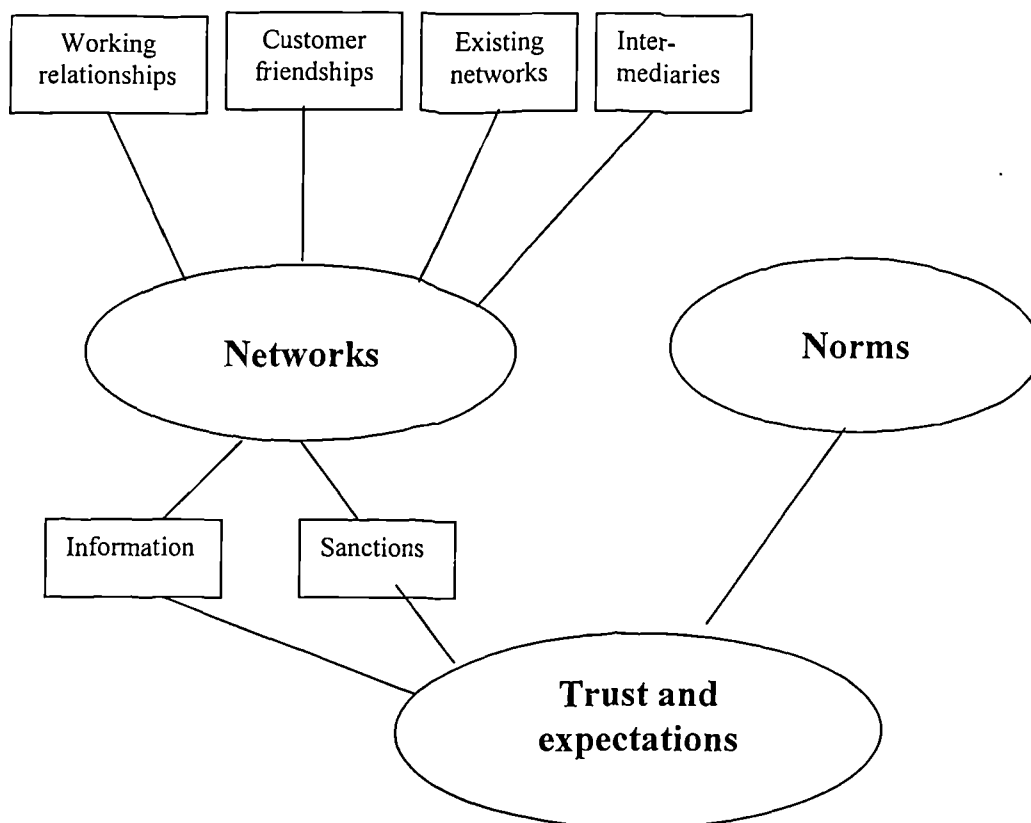
This section aims to examine why actors are not opportunistic and, more importantly, how people know that others are not going to cheat them. For this I divide the types of trust production into four: working relations, customer friendships, existing networks and intermediaries. In addition to this there is trust based on norms. However, relationships are shifting constantly and people may draw on more than one form of trust production. The categorisation of different types of trust production has evolved out of responses that interviews made to questions concerning the means by which they knew they were not going to be cheated. The open questions allowed the

farmers and traders to express their views, following which I attempted to draw out common themes that had been found in a wide range of studies. These are shown in table 8.2. The table also shows the underlying assumptions and norms.

Table 8.2 Trust provisions in elite...

	Working relationships			
Description	Trust through repetitive exchange learning other parties			
How sanctioned				
Formation and source	Reciprocity; credit (Trager 1981; Miller 1964). better quality (Clark 1994; Miller 1973)			s, 4a
	Clark, 1994; Miller 1973; Miller 1973; Miller 1973			k
	(Trager, 1981; Clark, 1994); Miller 1973; Miller 1973; Miller 1973			
	exposure risks (Dei-Ora 1994); Miller 1973; Miller 1973; Miller 1973			
	information (Trager, 1981; Clark, 1994)			

Figure 8.1 Networks, norms and trust formation



8.2.1 Trust based on networks of working relationships

The most commonly reported reason for trusting someone was the establishment of a long standing trading relationship. This category is similar to Zucker's (1986: 60) 'process-based' mode of trust production, where trust is tied to past or expected exchange, such as reputation, and reciprocity.

Working relationships can build up over a few transactions or after many years of continuous transactions. The cooperation is sanctioned through the threat of loss of future earnings. The continued interaction allows each party to collect information on the capability of the others and build up confidence. This can be in the form of visits to the farms of farmers who want to take agro-chemicals on credit, or obtain loans from traders. Traders and agro-chemical sellers resident in the villages will note how much farmers harvest and the amount of time they put into their farms. However, confidence in a person's ability should be distinguished from trust in their actions.

Issues of gender were not found to have a large impact on the strength of the customer relationships that built up. There is some evidence that traders prefer to deal with male farmers although this may be due to the fact that they have larger farms. However, the limited trader interaction with women may be a factor in explanations of women's small farm size. Amongst traders, the issue of a common gender is given as a reason for their ability to act collectively:

“the strongest and most elaborate groups arise in commodities where a large proportion of the traders are of one sex and one ethnic background. This ethnic and gender homogeneity brings general agreement on correct leadership styles and procedures and facilitates shared ceremonial observances” (Clark, 1994: 254-5).

Those lending money or giving goods on credit will test the other party over a series of transactions. This will involve a certain amount of risk at the beginning. Those giving are continually testing the other party and, as the probability of default is perceived to fall, then the amount given increases. Those giving will look at the rate, regularity and timing of repayment and whether the other party sticks to the agreement. Several agro-chemical retailers reported that they had many customers obtaining fertiliser and pesticides on credit at first, but many did not repay. Through this experience they had found out who they could give to in the future.

The loyalty of each party to the customer relationship is important and each party will want to know if the other has been buying or selling from others and whether their customer has been giving the correct prices. Farmers share this kind of information and traders resident in a village were found to be sharing information on who was defaulting. Itinerant traders and chemical dealers who are not resident in the village find it hard to get information on the activities of their customers.

Reciprocity is an important part of building relationships and reputations. This can be in the form of leaving money with the trader or agro-chemical seller for some time to prove that there is mutual trust. Farmers can also introduce new customers to traders or agro-chemical sellers and help the trader when she makes losses. One of the most important aspects of the customer relationships between farmers and traders is the

guarantee that the trader will buy from the customer farmer when there is a glut and the guaranteed supply for the traders when there is a shortage. Farmers will also ensure that they give their customers good quality produce.

One of the main requirements before giving credit is to know where the individual lives and works. When visiting them at their house or at their work place, the creditor can criticise them publicly, refuse to go away and hope that this will disgrace the person into repaying the money. After they have chased up the debtor several times and have not received any money, the debt is written off; the lender knows the person will not pay as they do not mind what others say about them.

On the one hand, this basis of trust can be seen as calculative when actors invest much time and money in building their reputation. Actors can make rational, conscious decisions that minimise their transaction costs in order to maximise their individual material gains. However, many of those interviewed referred to the knowledge they had of the customers' character or *suban*. They were able to trust a person in a certain transaction as they had seen the person to be trustworthy before. Common statements included: "I have studied her character", "I know what is in her head", "I have read his face", "I can tell by their speech and actions", "I know how she talks". This information comes in the form of tacit knowledge and can be instinctive as well as calculative.

8.2.2 Trust based on customer friendship

The division between social and economic activities is not clear cut and many of the customer relations established for business are referred to in terms of friendship and love. Each party may try to build up these links in order to have better safeguards based on a common understanding of moral behaviour to friends. While these actions can be seen in an economically functionalist way, and are based on the same information and sanctions as working relationships, they also draw on shared concepts of morality and altruism based on culturally specific norms. They are also

based on the understanding that there are different norms dependent on the existing and emerging relationship of the two parties.

These relationships are built up through gift giving and reciprocity. These include gifts of food when a trader comes to the village or when the farmer goes to the customer. Gore (1978: 185) also found that yam traders in Koforidua would give gifts of clothing, provisions or fish to farmers. Many farmers and traders also visit their customers when passing. The customer trader of one large farmer in Derma village had built up a friendship with the farmer's mother and brought gifts for her too. This farmer will also go to stay with his trader customer for several days at a time when he goes to Accra. In another case, an agro-chemical dealer obtained credit from his wholesaler supplier only after the wholesaler made a journey of several hours to visit the retailer's church and introduce himself to the church elders.

Another farmer in Derma had built up such close links with an Accra trader that his daughter went to stay in Accra to be educated and help the trader with household tasks. Gore (1978: 185) reports similar cases of temporary fostering of children. Other farmers had named a child after a customer as a sign of great respect for that person. These friendships are also built up through visiting the customer when they or a member of their family are sick or for ceremonies such as weddings or 'outdooring' when a new-born child is first taken outside. Attendance at the funerals of a customer's family member is considered important. The traders gave funeral attendance as the main reason for having market associations. Through attending funerals, additional links are created and obligations reinforced. A large number of guests at a funeral is a sign of status and so traders will ensure they attend and make a contribution to each funeral. If they do not, they will not be supported, in turn, when a bereavement occurs in their own family. These ties of friendship mean that the person giving has more confidence that the other party will repay the money because of moral obligations to reciprocate.

These examples show that the relationship and the type of reciprocity developed in customer friendships is considered to be different from a simple working relationship. Sahlins (1972) distinguishes between balanced reciprocity where the benefit is

calculated and generalised reciprocity where maintenance of the relationship is more important than short term gain, and where the norm of the relationship is altruism.

8.2.3 Trust based on pre-existing networks

The simplest form of trust is that based on existing networks. These networks or institutions are used to reduce transaction costs but are not formed for that purpose. The form of this basis of trust is systemic or part of the society within which individuals act and is therefore shaped by political and historical background to the relations of gender, ethnicity and class. In such cases actors will have information on each other as they have interacted and formed a common bond before they enter into any credit giving relationship.

These forms of trust are still based on some form of calculation as individuals can weigh up the costs of defaulting. In this case, the sanctions are in the form of moral pressures from the other party, and from other members of the common network or group, in addition to the threats of loss of future benefit. The basis of these existing networks can range in size from family to a group in a village such as a church, to a community and even an ethnic group. However, these networks only allow interactions with a limited number of people.

Family links are the most common form of existing network in the study area, with family members giving money to their relations to farm. Traders also rely on family members to work for them. These can be daughters and nieces of traders, or the brothers of agro-chemical shop owners who manage the store. Long-term friends can be relied on, as the party that is giving can be confident that the other person will behave as expected.

Churches play a role in allowing people to establish contracts with others whom they do not know well. People who attend the same church may find it difficult to behave badly towards each other.. A trader in Sunyani reported :

“This farmer could harvest all his produce for me and I keep all the money until the end of the harvest..... He made me keep his money because we lived in the same area, he was my church member and so knew me well before he started farming” (Ama Kumi, Sunyani trader, Interview 28).

It was also found that some people will start giving goods on credit as the other person is of the same denomination

By living in the same community, individuals already know each other. Those lending money know if the farmer works hard and know about the borrower’s past dealings with others. Positions of responsibility in the community can be seen by others as a reason to trust an individual. Two of the *susu* collectors interviewed had positions on the development committees of their community and so could use the reputation they had built up to start their *susu* business. By working in the same location, traders have networks that are strengthened because of a sense of shared problems and exploitation at the hands of the government, and because of the powers of the association to exclude people.

Other existing networks can be found along ethnic lines. Those farmers from ethnic groups in the north of Ghana often referred to trusting someone because he is ‘my countryman’. There is also a common perception that ‘northerners’ or ‘strangers’ as they are called, are more trustworthy than indigenous people, although there is a risk that they can run away with any money as they are not always full time residents in the area. Suggested reasons for this perception include the fact that non-indigenous farmers are in a weaker position when it comes to disputes over repayment and that the cultural differences are reflected in different norms of behaviour. These issues could not be pursued in detail.

8.2.4 Trust based on intermediaries

Trust can be based on both parties having a link to a common person, intermediary or *agyinamu*. This person can act as a character witness or a guarantor in case the borrower defaults. The *agyinamu* has information on both parties, each of which has

information on the *agyunumu*. Information can come from existing links or working relationships. Intermediaries act as links between networks or gatekeepers. Each party is sanctioned by pressure from members of their group or network, either by the threat of losing future earnings or through social or moral obligations.

Acting as a character witness can be in the form of telling other people about how well a certain trader or agro-chemical seller treats his or her customers. Knowledge of certain individuals who are deemed trustworthy can spread through gossip. People can also ask others whom they know in common for a recommendation. This role is often carried out by the elders of a family, but one agro-chemical retailer interviewed did not like to do this as it had made him very unpopular when the farmer could not repay and he had to make demands of the elder. Church elders are used as witnesses to farmers and traders taking goods on credit, especially when both parties are members of the same religious denomination. Police may also act as witnesses, but this only occurs in larger villages with a police station.

Traders taking tomatoes on credit can ask the driver of the vehicle or a customer farmer to act as a guarantor. In such cases, the guarantor offers to pay the farmers if the trader does not return. Traders themselves can act as guarantors for farmers when they want to obtain agro-chemicals on credit. A trader will go with the farmer to the shop and she will promise to pay if the farmer cannot. Acting as a guarantor is a different form of trust than being a character witness as it involves more explicit sanctions and is much more of a calculative relationship.

8.3 Norms

Norms define what actions are considered acceptable or unacceptable and, in this study, include customs of cooperation, reciprocity, avoiding deception and keeping verbal contracts. Norms are therefore the basis of building and maintaining personalised trust. Norms can also be relied upon to stop some forms of opportunism where the exchange is a 'one off' transaction with no previous contact between parties and no expectations of future interaction. Examples of this are found during

marketing, when farmers harvest before receiving money on the assumption that traders will stick to the agreed price. Traders also assume that the farmers will not include tomatoes below a certain quality or put rocks and grass in the boxes. These forms of opportunism do happen occasionally as these norms are not often enforceable.

There is debate over the extent to which norms determine economic development (Platteau, 1994; Moore, 1994). While there are arguments that show the importance of norms, there is scant empirical evidence. Ethnographic studies have not illuminated the subject. Many of the key quoted texts on the subject draw on game theory and historical studies. Axelrod's work on the Prisoners' Dilemma shows that it is rational to defect when there is imperfect information about the other player. The optimal strategy is tit-for-tat where the first player co-operates to start with then on subsequent games follows what the other player did on the previous game (Axelrod, 1984). This adaptive behaviour works when the number of games is indefinite. For this to arise, there is a need for generalised trust (or altruism) in the first move. However, Prisoners' Dilemma is based on the assumption that individual action is only for the strict defence of the individual's own interest (Storper, 1997). There is no discussion on how the rules emerge and the process of how individuals learn (Mulberg, 1995).

Harriss-White (1996:318) drawing on Ramanujam (1990), questions the concept of societal norms and stresses the importance of context-specific rules in Indian society and the plurality of norms:

"(Moral) behaviour can be specific to life-stage, caste or class, season, external pressures market exchange has probably flourished with a plurality of norms for centuries".

There can be norms which restrict the ability to enforce sanctions against some parties; these are often based on loyalty to people in the same network. This study shows that there are norms and these can be defined more specifically as the scale of the analysis is reduced. There is a danger of referring to societal or cultural norms specific to an ethnic group, as this leads to inaccurate stereotypes and ethnic groups are defined by their norms and cultural beliefs.

Norms can come in the form of habits¹. Habits are articulated by practice and are hard to identify in empirical research. In this study they often became apparent by the reaction of respondents to questions that they considered to be ridiculous. When asked the question 'how do you know this person will pay you back?', many respondents laughed and had to think for some time before answering.

Norms can also be applied more consciously and rely on social consensus to enforce sanctions. These sanctions or motivations come in the form of shame and obligations (Scott, 1976). Individuals are pressured into keeping to norms by those around them. This can be done by withdrawal of co-operation, disapproval and attaching social stigma to norm breakers, although this is limited to cases where those involved live in proximity or work closely together. This is demonstrated in the study area by the importance that those lending money attached to visiting the house of those receiving credit, so that they could visit them later and if necessary embarrass them in front of their neighbours. In the study many of the interviewees stressed the importance of religious beliefs, both Christian and Islamic, in their decisions on how to act. Platteau (1994b:765-6) also mentions that norms can be enforced through a self-policing mechanism whereby agents take moral norms and internalise them, behaving morally in order because of guilt and shame.

Norms cannot be created at will. The production of norms is based on what Platteau (1994a: 536) refers to as "historically-rooted cultural endowments", upon which norms of a more generalised morality can be encouraged when the right conditions arise. This can be limited in cultures which emphasise the strength of ties to close social relations. In such cases, reward and sanction are linked to patronage and dominated by the political power structures (Platteau, 1994b: 799).

Norms can be strengthened through processes of socialisation. The most common means for this found in the study was through families and religious institutions. Ensminger (1992) describes how the development of markets for the pastoralist Orma

people in Kenya was influenced by their conversion to Islam, and the use of Islamic institutions and rules of law. Portes and Sensenbrenner (1993:1324-5) use the term 'bounded solidarity' which can lead to "the emergence of principled group-oriented behaviour ...If sufficiently strong, this emergent sentiment will lead to the observance of norms of mutual support, appropriable [sic] by individuals as a resource in their own pursuits." Generalised norms can come from the state when rulers ensure that rules are enforced and they act as role models. Norms can also come from civil society if it is willing to take action against those who act outside the norms (Platteau, 1994b: 772).

There is debate over the role of the market in generating or eroding trust. Platteau (1994a and b) stresses the role of history and cultural fabric in generating norms and questions how these norms are created. Moore (1994: 826) recognises, on the one hand, that markets can erode social relationships and norms, while also acknowledging the point, made by Albert Hirschman (1982: 1467), that moral values can be generated by the market, its practices and incentives. It can also be argued that selective trust can lead to more generalised trust. Misztal (1996: 15) gives the example of trust in the medical system: "each positive contact with our local doctor, for example, may gradually increase our confidence in the medical system." Norms or conventions that developed from past selective trust based on proximity may continue in certain localities (Storper, 1997).

8.4 Sanctions and power relations

Embedded economic action is shaped by power relations. In all the cases of contracts based on cooperation and trust described in this thesis, there are differing balances of power. Social relations can be conceptualised as being a combination of trust and power that rely to varying extents on moral norms, information on the other parties and enforceable sanctions. These vary through time and depend on the contracts being negotiated.

¹Hodgson (1998: 178) defines habits as "a largely deliberate and self actuating

Cooperation in groups works if all members trust each other or there is trust in certain leading individuals who act as intermediaries. The larger the group, the harder it is to establish interpersonal relationships based on moral norms and information about others' reputations. As numbers increase, groups appear to be more reliant on power relations to coerce people into cooperation because of the higher transaction costs in terms of obtaining information on others' reputations and establishing interpersonal relationships. In this way the larger market associations operate in hierarchies that are similar to some larger scale firms. They are able to coerce because they have control over the key market spaces. The farmers' market associations do not have such power and so collective action is limited.

In contracts between individuals, the form is based on a balance of power. Those with greater power are able to set up contracts or institutions that benefit one party more than another. The more powerful party is able to have a greater say over how much is repaid and when. Agents can manipulate the exchange process, depending on their control over supply, access to information, capital and credit, transport and knowledge of marketing procedures as well as the organisation of the market (Harriss, 1993). All agents have access to some resources and so can exert a certain amount of power. However, the constraints on certain agents are much greater than on others. The outcome of such relationships with a basis of trust is closely linked to the extent of competition and choice available to farmers. These relationships can still be said to have an element of trust until the extent of power exerted is so great that the weaker has no alternative and is coerced into exchange.

An important issue is the extent to which the agreement allows producers to supply other traders and whether the weaker partner has a choice of traders with whom to develop a relationship. Patron-client or bonded relationships are found in Northern Nigeria (Clough, 1981; Watts, 1987) and widely reported in South Asia, although they were not reported in this or previous studies in Brong Ahafo and Ashanti regions of Ghana (Clark, 1994; Southworth et al, 1979). However, farmers can be forced into

propensity to engage in a previously adopted pattern of behaviour”.

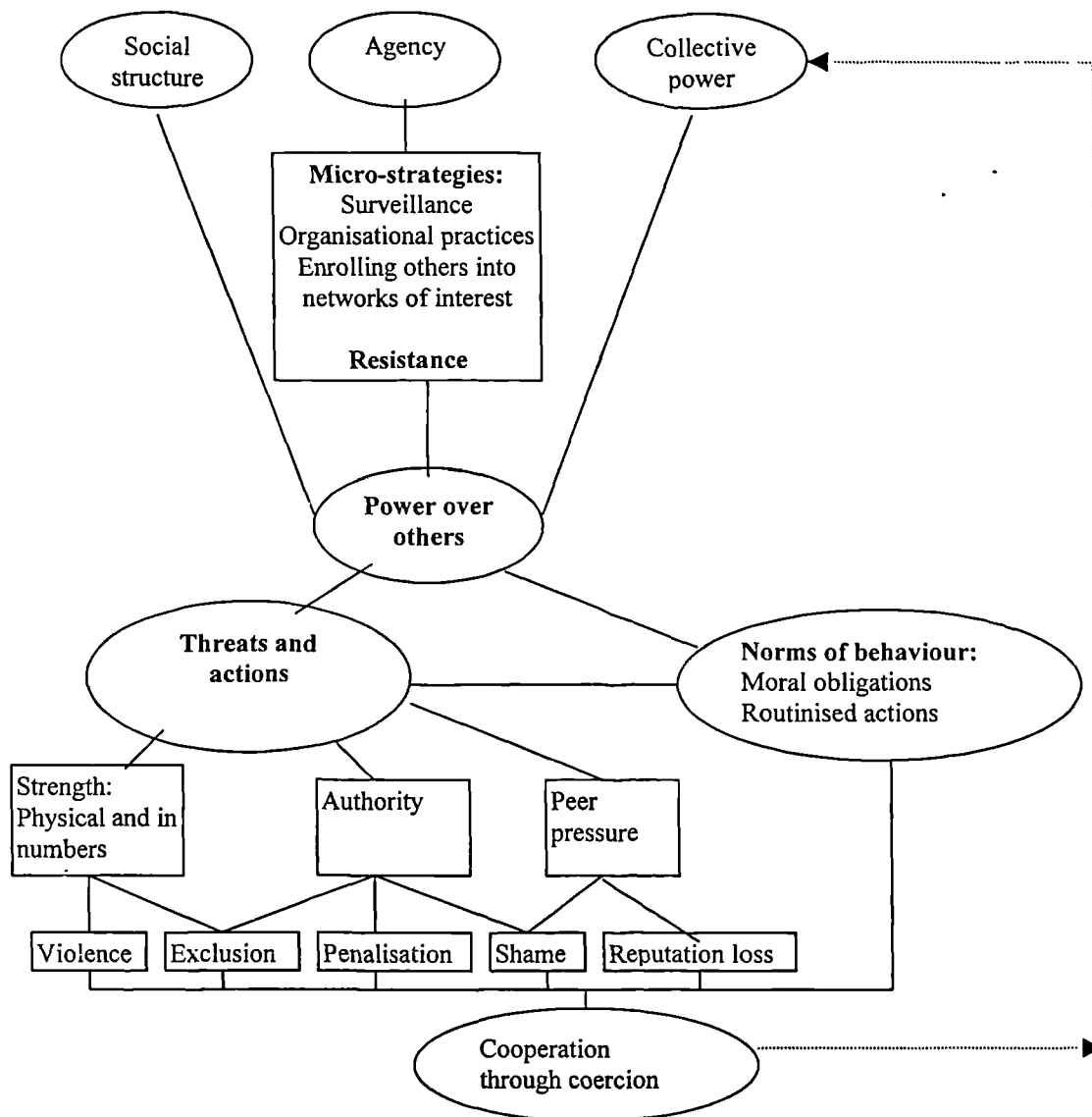
giving on credit at times when there are few traders buying because of the perishable nature of the tomato crop.

As mentioned in chapter two, the bases of power over others come from social structure, agency and collective action. The means by which power over others is built up and exerted is demonstrated diagrammatically in Figure 8.2. Social structure or inscribed power is in the form of class, gender or ethnicity relations and these relate to norms of behaviour and routine compliance. This was demonstrated by the interviewees who could not conceive of any occasion when someone might disobey the chief or leaders of transport associations; their reaction was often similar to the cases of non-calculative trust and norms when respondents laughed at my questions. Agency refers to the ability to build up power either individually or collectively. It is used to have power over others through setting organisational forms, surveillance, and enrolling or convincing others to join networks led by a trusted individual with power based on having information on others. Surveillance involves observing how others carry out activities and contracts.

These 'bases of power' lead to the ability to have power *over* others through threats and actions, and through norms of behaviour. The norms of behaviour include moral obligations, both acknowledged explicitly and internalised such as routine, unquestioning compliance to chiefs or group leaders. Power can be used to set the rules of the 'moral economy' allowing the values of certain groups to become internalised in the society (Lukes, 1974). In such cases the concepts of trust and power are closely intertwined as norms and generalised trust are based on the power exerted over some people that denies them the ability to reflect.

Power of threats and actions is exerted through the use of strength, authority and peer pressure. The strength can be either physical or in numbers and allows groups to inflict violence and/or exclude others from economic activities. The ability to make threats and carry them out is shaped by the norms of what is deemed acceptable behaviour. Individuals claimed they were restricted from taking forceful action against people from their own community as they did not want a confrontation and to 'get a bad name'.

Figure 8.2 Power and coercion in collective action



Threats of more drastic action are often made, but there were few reports during this research of any action being taken. Two people admitted to threatening violent action, both of them men and one tomato trader in Techiman said that she threatens those farmers who do not repay her with juju.

The market associations are all based to a large degree on the powers that they have to exclude non cooperators from certain spaces or economic activities. The control of the market places is based on official or tacit support from central and local government (Lyon, 1999a). The ability to exclude is only a threat if there is a risk of losing future benefits. This will only be the case when members believe that there are long term benefits to receive and that the group will not collapse.

The second of the means of exerting power over others is the reference to authority. The strength of authority is based on common beliefs, values, traditions and practice that result in the recognition of the authority's right to command. This is shaped by the norms of behaviour and issues of organisational virtue and obedience (Clegg, 1989). The ability to exert power through leadership is shaped by the leadership patterns within groups and the external authorities that groups can call on. In this case the most common external authority is the chief. Chiefs have the ability to fine people and continued disobedience is discouraged by the ability to refuse a person a burial in the community which is seen as a matter of greatest shame. Traders in market places can draw on the market leaders, who can put pressure on traders by threatening to exclude them from the market or fine them. The police are another form of authority that can be drawn on, such as when traders fail to pay for goods taken on credit and return after a long time. However, farmers stated that they cannot take traders who are resident in the village to the police because 'they are our own'.

The ability to exert these powers is based on official or tacit support from central and local government. However, the power of the chief varies dramatically between areas, depending upon when there have been conflicts and chieftaincy disputes. It must be recognised, though, that networks and associated institutions are continually renegotiated by those participating (Berry, 1997). All cases of authority are discriminatory although to varying degrees. Non-indigenous farmers, especially 'northerners', face some discrimination in cases that are taken to the chief. Similarly, traders from other markets are unlikely to have the same support from market associations as local traders.

The third of the means of exerting power over others is that of peer pressure and sanctioned through shame. This can be linked to the exertion of authority as they both use the sanction of shaming. Shame occurs when someone is seen to have broken a norm and for the other members of the group to ridicule and undermine the person's prestige and position in the community (Bleek, 1981). This pressure can be exerted because they see each other frequently and through knowing where the person lived

so that moral and other pressure could be used. This carries greater weight in certain societies and it is closely linked to the role of networks:

“In a society characterised by dense networks of civic engagement, where most people abide by civic norms, it is easier to spot and punish the occasional “bad apple”, so that defection is riskier and less tempting” (Putnam, 1993: 178).

Dei Ottati (1994) uses the term ‘personal capital’, drawing on the comments by Marshall (1932) in referring to the importance of reputations. Reputations can also be transferred or lent through being a member of a certain community or association².

8.5 Socio-spatial relations: market relations and the location of tomato production

The location and spatial development of tomato production has been shaped by market relations and the associated social capital that is perceived to accrue to certain communities or areas³. While physical attributes such as soil conditions, weather and access to irrigation are important factors in shaping geographical patterns, certain areas have become specialised in tomato production while other locations that may have similar natural resources, have not.

Road access plays a major role, with traders preferring to buy from locations nearer to their market and avoiding bad roads. These roads tend to be heavily potholed and gullied, resulting in damage to vehicles, longer journeys and, most importantly, lack of vehicle owners or drivers willing to visit the communities. This in turn restricts economic opportunities as access to markets is limited because of increased costs of inputs and transporting produce. Access to improved roads depends on links to politicians and relevant people in government; a similar finding was reported in the

²Threats to reputations is the sustaining force for group micro credit schemes because there are no other ways of putting on pressure except excluding the person. Peer pressure may not be explicit as it can be internalised by group members as a form of understood obligation and a form of moral economy. In this sense it is closely linked to the issues of trust.

³ Similar relationships are reported in research on ‘clusters’ (Porter, 1990; Schmitz, 1992; Schmitz and Nadvi, 1999).

post independence period (Gould, 1960). These links are based on personal relationships, which restricts many groups from obtaining assistance. Those with the access to policy makers tend to be people from richer settlements.

Less accessible areas may also have much weaker bargaining power when marketing their produce. This is due to the lack of competition among traders wanting to buy and the lack of information the producers or local traders have of market supply and prices in the major assembling or retailing markets. Without this information they cannot bargain effectively, especially if the produce is perishable and has to be sold quickly. In such cases, producers have to headload the produce for long distances or use passing cars to carry small amounts. This was found in the village of Kokoago in Wenchi District.

Access to capital is a major constraint, especially in those villages with few other income sources. Villages with agro-chemical shops are at an advantage, as they are able to build up the necessary trust and obtain goods on credit. This indicates the importance of proximity as a factor in customer relationships and credit supply. There are certain villages that have better access to capital because of their historical legacy. The cocoa industry shaped the economic history of the study area and this has resulted in certain villages having far greater access to capital than others. These communities may or may not be in accessible areas with good roads. This shows that access to capital is not necessarily linked to road access and proximity to formal credit institutions. Access to land and labour is also spatially differentiated and again it is closely linked to historical processes.

Farmers considered the reputation a village possesses to be one of the most important factors shaping the location of vegetable production. Traders were found to be willing to travel to areas with bad roads if they had customers there. When traders know that they can fill all their boxes in one location they will prefer to go there as it will save time. Traders also prefer to buy from farmers who are not producing on a very small scale as they do not want to spend time collecting small quantities. Farmers from smaller or less well known villages have to convince the traders that there is enough to buy there. However, people in many of these areas cannot afford to have larger

farms because of the risks of not finding anyone to buy the harvested crop of tomatoes.

The reputation of the village will grow if it is able to produce in a large enough quantity at a certain time so that traders can be assured of getting tomatoes to buy. It is therefore necessary to have a critical mass of farmers producing tomatoes. Once there are better marketing opportunities the risk for the producers of growing a perishable crop, such as tomatoes, is reduced and more people will be willing to grow tomatoes as a cash crop at the expense of other food crops. Those villages with a long history of tomato production in Brong Ahafo now import a large amount of their food.

Reputations can also be built by farmers with established customer relations based on trust, who move into a new area and bring those links with them. These ‘pioneer farmers’ already have trader customer relations from farming in another area. A remote hamlet near the village of Tanoso has increased its tomato production recently because of the links to Afrancho, one of the famous producing areas:

“Some Afrancho farmers have been farming here. They know the tomato work more than we do. When we are about to harvest, these Afrancho farmers go and bring traders from Afrancho so that all of us can sell” (Group interview with four farmers, Asubrofo hamlet, Tanoso, Interview 22).

In the village of Kokoago, tomato production is also increasing as marketing improves:

“Some farmers come from Tuobodum and Techiman and do it on a large scale because they have been growing tomatoes in their village for quite some time, they know the Accra traders so they bring them here to buy. Before the Accra traders did not come at all” (Ali Issah, Kokoago farmer, Interview 12).

Many young men in Derma village were found to be moving into new areas once they had become established tomato farmers. Derma is one of the oldest and most famous commercial tomato growing areas in Ghana, although now the risks of tomato production are increasing as the quantity of tomatoes produced can lead to gluts and the land has deteriorated after many years of use for tomatoes. When these ‘pioneer

farmers' invite their trader customers to buy from the new area, a market is created for the other farmers and this remains after the 'pioneer farmers' have left. Several villages were found to have started growing tomatoes for the urban markets after an individual had returned to the area, having learnt to grow and built up customer relations elsewhere

Some villages have a reputation for the quality of their crops. This may be because they use a certain variety that the traders like. It is also affected by the effectiveness of pest control. When farmers cannot afford the required pesticides, there is greater pest damage to the fruit that increases the post harvest losses. (The impact of the pesticides on consumers and the environment is rarely considered). Some farmers were concerned about their village getting a bad reputation for hiding lower quality produce (damaged or unripe) at the bottom of the crates and want to build a reputation for honesty and trustworthiness. An elder of Tanoso complained:

"Sometimes after harvesting they [the farmers] put leaves at the bottom of the crates so that a fewer quantity of tomatoes can fill the crates. When this happened the Accra traders stopped coming here they pass through this town and go to Tuobodum. They cancel our name" (Nana Kwabena Appiah, Tanoso farmer and village elder, Interview 34).

In several cases, traders reported that they could take the farmers who had hidden low quality produce in the crates to the elders of the community. The farmers would be punished as the community is trying to attract traders by maintaining the quality.

Villages also try to develop a reputation for producing at a certain time of year. Farmers will time their planting at a certain time as they know the traders will come during the harvest period. Villages without a reputation will start to produce at the same time as neighbouring villages and try to attract traders who intend going there.

The location and spatial development of the tomato industry in Ghana has thus been shaped by a number of factors. The patterns of land use cannot be explained by transport access or environmental conditions alone. Many geographical studies have 'assumed away' other factors such as social relations as they are preoccupied with

issues of location while other social scientists have failed to look at the spatial aspects: Siddle and Swindell (1990: 89) state that

“Geographers, quite naturally, have been preoccupied with the physical manifestations of exchange in rural markets At the same time, anthropologists and ethnographers, political scientists and rural economists sometimes analyse the dimensions of this process [reciprocity and ties of association] which remain unconnected with the realities of space-time structuration which embrace the geographical study”.

This thesis has shown that social relations shape spatial relations, just as the patterns of production and marketing shape social relations. It is important to recognise the role of ‘relational proximity’ through networks, and historical aspects that shape access to land, labour and capital. The location of the ‘higher level marketing centres’ is derived from social, political and historical aspects as well as economic factors. The role of Kumasi as a marketing centre is based on its traditional authority and the establishment of a pre-colonial road network that forced all trade to pass through it (Gould, 1960). The location of producing areas is also influenced by the existing power relations. The trader associations restrict access to markets and therefore privilege certain locations where members have farmer customers.

8.6 Conclusion

This final analytical chapter has explored some of the theoretical implications of the research. It has attempted to draw out of the empirical work a richer explanation of how social relations are built up and changed. This has involved an exploration of the concept of trust and power relations that shape the social linkages between the different actors in the tomato industry.

The institutional approach taken demonstrates the importance of understanding the diversity of action and the ability of individuals to take different action while being constrained by prevailing power relations. The conclusions justify the initial approach to the research that aimed to look beyond the over-socialised or structuralist

approaches that do not accept that there is room for human agency. I also attempt to provide a richer explanation than the neo-classical approaches to economics and formalist approaches to anthropology that assume humans act in a 'volunteristic' manner and ignore the cultural context and historical aspects that shape action (Long, 1992). This issue will be taken up in the concluding chapter.

Chapter 9 Conclusion

9.1 Introduction

This thesis set out to examine the role played by social relations in food production, finance and marketing in rural Ghana. Taking the case of the tomato sector, it explores the range of institutions and informal arrangements that exist and how they operate. Detailed studies of the operations of farmers, traders, input suppliers and others illustrate how the actions of individuals and groups are embedded in social structures (Granovetter, 1985). The results have implications beyond this case study: they raise questions about policy approaches and theoretical paradigms that are currently prevalent in some quarters of applied development research. The study clearly demonstrates the importance of starting research by examining the diversity of practices. Attempts should also be made to understand how individuals' actions are shaped by social structures and respond to 'market signals'. Such an approach allows for an understanding of how markets actually function and are shaped by trust and power relations.

9.2 Summary of research findings

Chapter one introduced a series of research questions which were derived from a central research issue, namely: *what are the interactions of farmers and traders that allow them access to resources for production and marketing and what is the nature of these links?* In this section, the results of the surveys are summarised in relation to each of the four sets of subsidiary research questions.

The surveys identified a large number of institutional forms which have to be seen in their social, political, historical and environmental context. These contexts were examined in chapter four in relation to production, agricultural input supply and produce marketing. In the production context, details are given on the history of commercial agriculture in Ghana and the study area, the changing environmental factors that shape location of tomato production, a background discussion of the

farming system, and an investigation into the differences between farmers in terms of marketing orientation, gender, wealth, age and ethnicity. Details of the agricultural input supply systems and participants was followed by a discussion of the historical and present marketing systems and a disaggregation of the traders (who are all women).

The first subsidiary research question of the thesis, examined in chapter five, was: *how do farmers access resources to farm?* The key resources required by the farmers are land, finance, labour and agricultural inputs. Farmers may use their own or family land that they are entitled to under customary law, although 25% of farmers interviewed were found to be renting.

Finance comes from farmers' other income generating activities and from private individuals who lend money. Loans from banks were limited as tomato farmers are considered to be a high risk category, and farmers complained of the high transaction costs involved in obtaining bank loans. Other important sources of finance are the informal savings (*susu*) collectors who concentrate on providing saving services through daily or weekly contributions but who may also lend to some of their customers. Farmers can also enter into share cropping agreements where the farmer receives money from a sponsor who takes a share of the output or profit. There are a range of these types of share agreements and they have evolved out of similar contract forms used for renting land for cocoa and other crops. The survey found that 11% of farmers were receiving credit from traders and that 65% of the traders were extending credit to their customers. Some traders lend to farmers who on-lend to other tomato growers. Traders collect their money when farmers harvest. Traders benefit as they can offer lower prices and have a guaranteed supply of tomatoes. Farmers were not found to be tied to selling all their crop to the credit giving traders and no cases of farmers being forced into long term indebtedness were reported.

Tomato production is very labour intensive and farmers rely on their own and family labour for much of the work. Labour is hired for more demanding tasks and either paid by the day or a contract is given for a certain task to be done. If the farmer does not have adequate funds the labourers are paid later but receive more money. Some

farmers also use cooperative labour agreements whereby groups will agree to work on each persons' farm in rotation.

Farmers have to obtain access to agricultural inputs and given the financial constraints under which they operate, they often rely on purchasing the agro-chemicals on credit. The extent to which input sellers will give goods on credit is limited by the risk of lending and the lack of trading capital. The survey found that 27% of tomato farmers received agro-chemicals on credit and this covered an average of 55% of their total agro-chemical costs. The ability to obtain credit depends on the customer relationship and trust between buyer and seller. Some sellers charge higher prices if they sell on credit while others use the credit as a way of building their customer base. Eighty-six percent of the sellers offered saving facilities for the farmers in the months before the production starts. The sellers can finance their business by having credit agreements with the wholesalers once they have built up a customer relationship or if they have close links already. In addition to agro-chemicals, farmers need to obtain seed. Most of the farmers use their own, but 15 % of farmers interviewed had received seed from other sources in the previous year, usually from other farmers in the village. A small number received seed from traders.

In chapter six, the thesis addresses the issues of rural marketing and the interaction between farmers and traders. A number of questions were set out in the introduction, the first of which was: *how do farmers access markets and how do traders access producers?* This question related in part to the range of types of transport, from head loading to urban-based trucks. It was also found that there are remote areas with higher transport costs but with good access to transport because of the customer links they have with traders and transport operators. The urban based transport system in Ghana is centred around the lorry park system. The Ghana Private Road-users Trade Union acts as an organising body and controls most of the loading stations in the cities. They levy registration fees and user charges and can operate as a monopoly as they can exclude other groups of transport owners from having alternative associations.

The second question relating to rural marketing was: *what shapes the marketing process and the prices received by farmers?* Customer relations were found to be of

central importance to both farmers and traders as they can benefit from having guaranteed buyers or sellers. Prices received by farmers were found to be constantly shifting from hour to hour. This is linked to the supply conditions and the bargaining power of each party. The bargaining process and units of sale were also studied. Of particular interest were the cooperative marketing institutions where a group of farmers will select representatives to bargain on behalf of the whole village. The strength of these depends on both the cooperation between the farmers that enables them to stop people accepting lower prices from traders, and the trust that farmers have in their representatives. It was also found that there are adjustments made to contracts after the price negotiation if the price in the village rises or there is produce of a lower quality than that usually accepted.

One of the major factors in shaping bargaining power is information and this relates to the third question on rural marketing: *how are the farmers and traders able to obtain information?* Comparison of price changes in urban and rural areas showed that there is a time lag in dissemination of information. The thesis examined the traders' information sources, which included other traders and farmers, and also farmers' sources, such as sending people to markets or neighbouring villages, and assessing how readily traders accept prices offered. The final question in relation to rural marketing was: *how are the traders able to secure access to finance for trade?* The sources of finance included their own capital, borrowing from others, and receiving tomatoes on credit from farmers who are customers. This last method can be risky for the farmers and only occurs when the farmers trust the traders or at times when there is such a glut of produce that the farmers have no choice.

The final empirical chapter explored the question: *how are the urban market systems organised? How can the role and survival of traders' associations be explained?* The urban marketing systems of Ghana are heavily influenced by the trader institutions that organise the traders and have powers over price negotiation, dispute settlement, and supply control. Each commodity has an *ohemma*, or market queen, and elders who advise her. The association leaders justify the controls over supplies to the market as traders cannot withstand wildly fluctuating prices. However, such practices can be used to set up cartels that exploit farmers and consumers. This study found that there are

varying degrees of competition which vary from market to market and within markets from day to day. The ability of the associations to survive over many years while other forms of associational activity have not, is explored. It was found to be based on their ability to control the market spaces with support from local governments and chiefs. Finally, the thesis examines the institutions of retailing that include the special role of porters in Kumasi market, a range of credit arrangements between itinerant traders and resident retailers, and the institutions of sales to consumers.

9.3 Theoretical implications

In this thesis I have attempted to take an approach that is neither over- nor under-socialised (Granovetter, 1985) and that is neither overly structuralist nor methodologically individualist (Long, 1992). I have endeavoured to balance both structure and agency in a way that allows a detailed understanding of how economic action, such as individual marketing and collective action, operates.

Chapter two outlined the limitations of neo-classical approaches to economic analysis. The assumptions of perfect information, no barriers to entry, homogenous goods and economically rational profit maximising behaviour, rendered the approach problematic for a study such as this; the very factors which such approaches assume away, are the issues that are of most interest in this study. I was also trying to move away from the methodology-driven approaches that concentrate on quantitative data for modelling. It is ironic that the paradigms promoted by those who support the market system most strongly provide a shallow view of how capitalism and market relations actually operate in practice. Much of their analysis is based on assumptions that relate to universalist conceptions of “market forces” while ignoring the historical, political, social and cultural specificity of the context.

New Institutional Economics has reacted to some of the limitations of neo-classical economics. However, some of the NIE approaches have been highly functional in that they suggest that institutions only exist to reduce the transaction costs and serve the benefits of potential beneficiaries. There can also be institutions that do not exist

for the general good. The cases of the trader associations given in chapter seven demonstrate the difficulty in evaluating the impact of institutions. The definition of 'inefficient institutions' is highly subjective and dependent on ideological stance. Gambetta (1988:214) points out that individuals see trust as beneficial when those with whom they co-operate do not hinder them. In such situations, institutional economics that only looks at transaction cost minimisation cannot explain the continued existence of certain institutions. Platteau (1994a: 536) criticises this approach for its assumption that institutions are "evolving more or less spontaneously towards efficient forms under the pressure of relative price changes", while Khalil (1994a: 253) states that there are "moral principles, ideological commitments and socio-cultural norms that are not devised, to start with, to attain greater efficiency".

While structuralist approaches allow greater attention to be placed on the role of history and power relations, they can be overly deterministic and therefore not allow for a detailed study of the role of agency. There is also a concentration on class as an analytical category despite the fact that such categorisation is difficult to identify in Ghana (Konings, 1986; Berry, 1993). The pattern of commercialisation in rural Ghana has not followed the process expected by models of capitalism and peasant agriculture. Increased involvement in the cash crop economy has not led to the elimination of social relations in production and marketing but has resulted in new socio-economic forms. The case of cocoa and the development of sharecropping agreements is a case in point (Hill, 1956; 1963). Such institutions for access to land and capital are still prevalent today for a range of crops, as shown in chapter five. Other institutional forms have evolved that have allowed small holders to continue to dominate the agricultural system and are a factor in limiting the expansion of a plantation economy.

This research drew on a framework derived from the socio-economic literature and old institutionalism (Hodgson, 1988; Swedburg and Granovetter, 1992) and attempts to contribute to the theory of embeddedness (Granovetter, 1985). These approaches provide a language and mode of analysis that are useful in understanding how markets are embedded in social relations, especially when the economic system is not formalised. This allows for an examination of exchange relations not just based on

price and minimisation of transaction costs, but also on issues such as trust, loyalty and power relations. A clear conceptual framework for looking at these themes was essential for the analysis of the case study in relation to farmers' access to land, labour, agricultural inputs and capital, the interaction of farmers and traders, and trader cooperation.

In chapter eight, the processes by which trust and power are built up, shaped and modified were explored. Trust is a central factor in a large number of the institutional forms that farmers and traders depend on. Trust was found to have been built up through four means: networks of working relationships based on reciprocity; customer friendships where working relationships become merged with more social activities; pre-existing networks such as families, communities, churches and ethnic groups; and finally, intermediaries who are trusted by both sides. Norms are also an important aspect of building up trust and are discussed later in this section. Power relations depend on both the pre-existing or inscribed power and the ability of individuals to build up power, either individually or collectively. Power *over* others is exerted through threats and actions such as punishments and fines, the use of physical strength to exclude individuals, reference to authority such as chiefs or police, or peer pressure and shaming. Power is also exerted through setting norms of behaviour.

Cooperation is poorly conceptualised in much of development practice and theory. In many cases there are the simplistic artificial models such as "prisoners' dilemma" and "tragedy of the commons". These are based on the assumptions of rational choice and individualism which ignore the issues of sanctions and norms. These are external issues that cannot be explained by new institutionalist thought as they involve recognition of wider social structures and values. The interpretation offered here also tries to move away from the deterministic or functionalist approaches that assume that cooperation will exist because it is needed. These approaches may be over-socialised as they assume trust is always present. This study has attempted to explore how contracts and cooperation occur when trust and power relations are built up. It is therefore necessary to understand the processes involved in changing social relations.

A range of cases of cooperation have been examined in this thesis. This has involved looking at the basis of cooperation through understanding the continuum of power and trust, and through understanding how social relations are created. This shows how a theory of embedded economic action must have a clear concept of agency and the means by which different actors obtain access to resources through negotiation within social institutions (Berry, 1993). This allows a better understanding of issues of differentiation, as there is considerable conflict of interest within many of the categories used in social science such as gender, ethnicity and class.

At the same time it is important to set each action within its social and historical context. The importance of history and previously existing institutional settings is shown in the case study in terms of trust based on pre-existing networks. It is also necessary to have a detailed conception of changing norms. The role of customer friendships demonstrates that there are different norms for different relations. The study also shows how trust produced in different ways can be both calculative and instinctive. Each party will take in tacit knowledge that will be used to decide whether to trust the other in the future.

The theory of embedded economic action can contribute to conceptualising the term 'social capital'. This term has become increasingly popular in social science although it is defined in vague terms which weakens its capacity as a theoretical tool. Robert Putnam defines the term in his analysis of governance and economic development in Italy, as "features of social organisation, such as networks, norms and trust, that facilitate coordination and cooperation for mutual benefit" (Putnam, 1993: 167). Social capital comes from the interplay of a range of factors, each of which entails social relations that shape how agents react, and the more social capital is used the greater it becomes¹.

¹ It is questionable whether the term social capital can be used if it increases the more it is used. Narayan (1997) states that it is capital because it raises incomes but others claim that capital should have an opportunity cost. While this can be the case when people deliberately create social capital, it is not the case when it is an inherited endowment (Woolcock, 1998: note 21).

Social capital acts as an umbrella term that covers a range of processes by which social relations are formed, and become the basis for other institutions and relationships (Lyon, in press). The concept of social capital allows for an open debate about issues such as social structure, norms and habits in economics that challenge the concept of 'methodological individualism'. It is also an opportunity to bring a wide range of debates into policy discussions, in the same way that the concept of 'sustainability' has brought a wide range of views together for discussion, despite (or because of) the differing definitions used.

Networks are the most visible, clearly definable and measurable part of social capital, and for this reason they have received most attention. Putnam's thesis rests on the role taken up by the networks that lead to what he terms 'civic engagement'. Many analyses, especially those that attempt to quantify social capital, concentrate on formal networks and groups with an assumption that the quality and quantity of associational life can be used as a proxy for social capital (Narayan and Pritchett, 1997: 2). However, formal associations may only be a minor factor in the production of trust or social capital and the links between networks, norms and the mechanism of creating institutions based on trust are not made clear.

While it is accepted that networks are important for the creation of social capital, there is a danger of taking a romanticised view of networks, or 'the community'. Amin (1996: 327) warns of the danger of ignoring the fact that civil society is an arena for social contestation. Closed networks can be used in the development of cartels and in restricting access to markets. In the study area, traders justify these associations as a way of stabilising the very volatile prices of perishable crops, although the extent to which they act to reduce their transaction costs or to act in a way to increase their market power differs considerably between markets. Power struggles exist and affect which groups control which resources, what they do and who is excluded.

Norms are an important part of social capital that are drawn on by actors when making decisions on whether to trust an individual. There is a wide range of norms, of which reciprocity is the most visible. Reciprocity can be seen to be both

calculative, when part of building a working relationship, and also a generalised norm that is more instinctive. There are unanswered questions over whether there are ‘pervasive norms of generalised morality’ that shape whole markets or societies, or whether each relationship has to be considered in its own context. There is a danger of over-socialised or deterministic views that attribute economic success or failure to cultural attributes while ignoring the role of agency and the interplay of actors with different power relations.

Finally, this thesis raises theoretical issues regarding the study of the spatiality of social processes and production of the territory. The patterns of commercial agriculture and market access depend on a range of issues. These include the physical environment and transport costs, as well as historical aspects that shape access to key productive resources especially capital. However, social relations are constantly changing as new links and networks are formulated, especially through the development of customer relationships. In this way it is important to distinguish between physical proximity and relational proximity. The study found that a major factor in the specialisation of certain places in one crop are reputations arising out of customer relationships built up by individual farmers and traders.

9.4 Policy Implications

The case study illustrates various ways that rural people and urban traders create sustainable livelihoods. Developing coping strategies is an important part of this, especially in cases where there is a shortage of finance. In this way the study adds to the debates on policies for sustainable rural livelihoods² (Carney, 1998). Carney (1998) presents an analytical framework for understanding sustainable rural livelihoods, that concentrates on the various ‘capital assets’ that influence (and are

² Carney (1998: 4) adapts the definition of Chambers and Conway (1992): “A livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base”.

influenced by) institutions, incentives, policies and laws of the government and private sector. The capital assets include natural, human, financial, physical and finally social capital. Policies that aim to have an impact on social capital will be flawed if the concept of social capital is not understood.

This study provides an example of how a large number of people have been able to enter into commercial agriculture and thereby reduce their poverty. It must be noted that the benefits of tomato farming are not spread evenly and those participating in its production tend to be younger men and older women. This was discussed in detail in chapter four, and the differentiation is based on the physical strength of the young men and the access to working capital of the older women. The extent to which commercial crops do improve rural livelihoods depends on the access to markets. This study has shown how market relationships are vital for providing access to market information and finance. Without these networks and links the farmers would not be able to grow tomatoes for the urban markets. Therefore, discussions on building sustainable rural livelihoods through producing and marketing cash crops must examine these relationships that often extend far beyond the rural communities.

This study also raises questions regarding the role of traders in rural development and the extent to which their activities should be supported. On the one hand traders can be seen as forming vital links between the urban and rural economy by taking the risk of investing capital in rural areas. On the other hand they have been accused by the media and politicians of exploiting farmers through offering low prices for produce and lending money at 'usurious' interest rates. Exploitation can occur when farmers are locked into indebtedness and have no choice over what crops they grow, and whom they sell to. This situation was not found in the study area, although there is a need to examine each context by understanding individual circumstances and disaggregating the traders.

There are questions over what are exploitative rates of interest, as lending to farmers is costly in terms of ensuring repayment and highly risky because of the unpredictable harvests. The government fixed rates of interest at 30-40% were not accessible to

farmers, as banks did not consider it profitable lending to them. The access to bank credit is also limited by the social distance between small scale farmers and officials as well as the difficulty farmers have in providing collateral; they do not have clear ownership of the land as it is vested in the chief. They manage to get loans from other sources using other forms of collateral based on trust. There is a long history of credit being passed backwards and forwards between farmers and traders (Reynolds, 1974: 80). However, farmers are often at a disadvantage as the interest rates are linked to the price of produce sold and traders tend to have greater bargaining power as they have better market information. There is therefore a need to develop more effective market information systems for farmers and build on the existing information channels described in chapter six.

Timely and accurate information systems are especially important for perishable crops such as tomatoes. At present there are limited channels available to traders and farmers, with many reliant on their own observations and word of mouth. There is potential for using the local FM radio stations operating in most towns. Prices being received in different producing and selling areas could be collected by District Assemblies or individuals funded through sponsorship by local private firms. Agro-chemical sellers are potential sponsors and already use this media for advertising. Other ways of improving information is through the use of telephones, either land-lines or mobile phones. These are becoming more accessible in the producing areas.

The perishability of produce is a major concern for tomato farmers world-wide. The difficulty in storing tomatoes or processing it into a form that can be stored, results in farmers being in weak bargaining position compared to traders. The shelf life of tomatoes could be extended through having varieties with better post harvest qualities although such varieties were not found to be popular with Ghanaian consumers. Cold storage would increase the shelf life but none of the traders used it as the margins from tomato trade were considered to be too small and traders did not have access to capital to install such storage. Furthermore the market areas are already highly congested and traders value the ability to have a fast turn over of capital.

There have been several attempts at processing tomatoes on a commercial scale. Two State owned factories were established in the 1960s, one in Wenchi, Brong Ahafo and the other in the Upper East Region. Neither were profitable and both were closed in the 1980s. There may be processing in the future as both plants have been bought; there have also been proposals for smaller scale plants in Derma. The main constraint on processing is the ability to have access to the fresh tomatoes of the correct variety throughout the year. The demands for processing plants are based on the low prices received at certain times of the year. However, as shown in chapter six, the prices of tomatoes vary considerably and a processing enterprise would not be profitable if it bought at the market price for much of the year (Lyon et al, 1998).

While this thesis has examined the livelihoods of farmers and traders, I have not explored the issue of environmental sustainability of the tomato production system. The ability of the tomato crop to continue providing farmers with livelihoods may be threatened by reported soil degradation in the form of soil fertility decline, soil pests such as nematodes and damage to the soil structure. These factors are related the lack of following especially on the river bank irrigated plots. The lack of organic matter being applied to the soils and the reliance on inorganic fertiliser may accelerate the problem. Farmers have very little knowledge of using organic fertiliser as it is not readily available in the form of manure, and composting is seen as labour intensive. However, there are research projects underway looking at its potential for tomato farmers in Brong Ahafo. Bush fires also result in the decline of soil organic matter but the alternative cultivation practices have considerable disadvantages especially when dealing with certain types of vegetation. However, neither the extent to degradation nor the differing causal factors have been measured or researched.

There are also environmental risks to the wider community and consumers of tomatoes. The extent of pesticide residues in the tomatoes and in water courses is not known as there is no monitoring system at present. The pollution of water courses could have considerable implications for those communities who rely on rivers for drinking water. Damage to the rivers can also come about through silting of the river beds and reducing the dry season flow. Farmers report this to be increasing although, again, there are no monitoring systems and no research into the impact of tomato

farming on it. For farmers to tackle these environmental risks may entail costs in terms of finance and labour, both of which are highly scarce in the tomato production system. Therefore any environmental conservation measures involving farmers would only work if the farmers were able to make a profit on the land.

This thesis also has more direct policy implications. The case study of Ghanaian agricultural markets shows the importance of social relations for micro-enterprise survival in conditions where the actors cannot rely on formal legal institutions. This has implications for the privatisation of industries as a change of ownership and the rigours of the market system alone cannot be expected to encourage a private sector to flourish. A study of the privatised seed industry in Ghana that has followed the framework and methodology laid out in this thesis, shows that it takes time for trust to be built up and the different actors play a range of roles, many of them unexpected and unpredictable at the time of privatisation (Lyon, 1999b). It is necessary to understand how markets operate in different locations and be sensitive to local path dependencies, rather than assuming that there are universal 'market forces' or conditions that can be transplanted anywhere.

An understanding of the social relations that underpin the market system can be used to identify those actors who are already financing production and marketing activities. Such individuals or groups may be worthy of support as they generally have a much better record of channelling credit to the rural poor than formal credit systems in low income countries like Ghana. The risk of being cheated and the difficulty in taking legal action dissuades many people from entering into contracts and building up links. A legal system that is more appropriate for micro-enterprise development would allow individuals to open up new opportunities, and more time and resources could be put into building up other relationships.

It is necessary to identify those who are excluded from networks that have the potential to lift them out of poverty, and also ensure that poorer individuals are not tied into networks or dependency relationships that can be highly exploitative. Future research needs to examine the characteristics of those who have escaped from poverty and how some individuals can attain the appropriate attributes which allow this.

Furthermore, it is necessary to identify the constraints which prevent others from doing so. This requires detailed qualitative studies and a consideration of differences such as gender, ethnicity, wealth and age. There may be a role for the state and other external agencies to support those excluded through reducing risks and increasing bargaining power, for example by assisting in the provision of information on market opportunities and on other actors in the market system.

Finally, there are policy implications from the embeddedness theory outlined in the previous section. An understanding of social relations and cultural context through in-depth qualitative research can lead to the identification of existing institutions, networks and people who act as intermediaries. Networks can be promoted through facilitating links, identifying network brokers and mediating conflicts. The potential for outside intervention to create groups or networks is limited as the successful ones are embedded in social relations that take time to develop. Projects that attempt to support the 'soft' institutional framework have to balance the nature of these institutions with the constraints of 'short termism' in project planning with its dependence on attaining pre-set targets. Successful interventions in this area have occurred when there are enterprise support systems that have strategic goals to innovate culturally specific approaches that create room for innovation. There is also a need to build on existing institutions and avoid an approach to development based on applying inappropriate models made popular by donor fashions and the desire to 'replicate and conquer'.

Appendix

Questionnaire

Village _____ Enumerator _____ Date _____

1. Name _____

2. Location of house _____

3. Estimated age _____ 4. Sex _____

5. Where are you from? _____

6. When did you start veg production? _____

7. When have you harvested tomatato in the past year?

1. _____ 3. _____
2. _____ 4. _____

8. Who do you farm with?

Alone _____
Husband/wife _____
Friend/brother _____
Sharecropping _____

9. Who provides land, labour, chemicals, machines

How is harvest shared _____

10. Who decides what chemicals to buy? _____
(if it is not the interviewee then end interview)

11. How many boxes did you harvest? (give estimate if not known) _____

12. Whose land did you use for last season?
What size _____ What cost _____

13. Last season what chemicals did you buy

	quantity	price	Did you pay ready cash or pay later?	How much paid later?	How is the price different when paid later
Fertiliser					
ammonia					
poison (insecticide)					
Powder (fungicide)					
Other					

14 Equipment

	days	price	Did you pay ready cash or pay later?	How much paid later?	How is the price different when paid later
Tractor ploughing					
Sprayer					
Irrigation pump					

15. What other sources of money do you have for your tomoato farm? (Agricultural and other)

16. What other help did you get for your vegetable farming in the past year.

Who? Trader, bank, other farmer, other (give details of occupation).	Where based	How much	When given	When repaid	How repaid. cash or share of harvest	How much extra cash/ how much lower was the price?

How did they know that you would repay them _____

17. Do you help other tomato farmers?

	How much	When given	When repaid	How repaid; cash or share of harvest	How much extra cash/ What share of harvest
Share cropping					
Lending money					
Other					

When you gave money, how did you know that they would come and pay you?

18. Do you give to traders and get paid later? Yes/No How many boxes? _____

Weekly questionnaire for monitoring the disposal of vegetable harvest in Brong Ahafo, Ghana

name of farmer: N.W. Kondeh village: Mansa date: 2.11.196 day: Friday interviewer: O.S.M

Note: use a separate row for each harvest

What crop was harvested? (1) Variety and quality/colour	What day did you harvest on?	How much did you sell? (2)	What was the price? (per unit) (3)	Where did the buyer come from and name if known? Are they a regular customer? Where did they sell?	How much thrown away, given to relatives, friends and harvesters?	Why?	How much did you dry (pepper, okra)	How much did you use for seed?
Tomatoes Power	2/11/96 SAT	Six Boxes	45,000	From Techiman reg. customer, Techiman Market	Four rubbers were thrown away.	The fruits were over ripe, due to the delay in ripening.	—	—
..	..	..	..	..	one rubber was given to harvesters.	..	..	..
..	4/11/96 MON	13 Boxes	45,000	From Techiman reg. customer, Techiman Market	Two boxes were thrown away.	The fruits just damaged, due to over ripe	—	—
..	5/11/96 TUE	13 Boxes	45,000	From Techiman reg. customer, Techiman Market	One box was thrown away (one rubber was given to harvesters)	..	—	—
..	7/11/96 THU	10 Boxes	43,500	From Techiman reg. customer, Techiman Market	Ten rubbers were thrown away	..	..	..

- 1 Specify the variety and quality e.g. ripe aworowo garden egg - state colour
- 2 put in units e.g. sacks (mini/large), boxes (Kumasi/ Accra) rubbers or baskets (large/small)
- 3 price for the different qualities, e.g. ripe garden egg or white garden egg, and damaged products
- 4 1=farmgate 2=village collection point 3=village market 4=market in another village(specify) 5=roadside 6=town market(specify) 7=house 8= other(specify)

REMARKS

Glossary

Abunu	Sharecropping with equal shares
Abusa	Sharecropping with shares divided one third - two thirds
Abusua	Extended family(in relation to land tenure, it refers to matrilineal kinship groups)
Abusua panin	Head of matrilineal kinship group
Adantɛm	Second part of the early rainy season (May-September)
Agyinamu	Guarantor and intermediary in a contract
Ahafo	Ethnic group in southern part of Brong Ahafo
Ahoɔden	Strength
Akan	Ethnic groups of southern Ghana sharing a similar language (includes Ashantis, Brongs and Ahafos)
Akpeteshi	Local gin, distilled from palm wine or sugar cane
Asantehene	King of the Ashantis
Ashanti/Asante	Twi speaking Akan ethnic group with Kumasi as capital
Birempon	High ranking or respected people
Brong	Ethnic group in the north of Brong Ahafo
Dwetire	Working capital
Fupe	Farming season from June to October
Fupe kyire	Farming season from July to November
Gyedi	Trust, as well as confidence, knowledge of a person's ability, belief and faith
Mpaninfo	Elders
Nkwainsofo	Itinerant traders
Nnoboa	Cooperative labour groups
Ohemma	Queen mother or market queen
Petra kan	Farming season from October to February when the dry season starts
Petra paa	Farming season from December to March during the dry season
Pito	Sorghum beer
Sukan	Farming season from March to July at the start of the rainy season
Susu	Informal financial savings groups
Twi	Language of the Ashantis
Zongo	Area of towns and villages where non-indigens mainly from the north of Ghana live

A note on pronunciation

ɛ sounds like the 'e' in 'hello'

ɔ sounds like the 'o' in 'hot'

November 1997 £1 was 3800 Cedis.

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