

Commercialisation of small scale Agriculture in developing countries:**LITERATURE REVIEW**

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2.1 Introduction

South African agriculture is characterised by dual sectors, subsistence agriculture that is largely black, and on the other hand a commercial sector, which is largely white. It is for this reason that the South African agricultural sector strategy is the creation of a united and prosperous agricultural sector. The immediate concern, *inter alia*, for the South African agriculture is the levelling of the playing field with equal access to rewarding markets as one of the main objectives. The greatest challenge in this regard lies in the ability to successfully integrate the subsistence sector into an exchange economy. The factors inhibiting this sector from participation in the market economy include high transaction and information costs.

This chapter will provide a literature review on issues relating to the commercialisation of small-scale agriculture. To achieve this objective, this chapter kicks-off with a theoretical framework based on the New Institutional Economics (NIE) as a school of thought that provides the basis for analysing and better understanding of the major factors behind the success or failure of small-scale farmers' commercialisation in developing countries. The chapter proceeds by offering the definitional aspects of the term institution as the main determinant of economic performance.

Identification of appropriate rural institutions to incorporate rural people into business opportunities is a major priority for relevant policy research. In this regard the discussion continues with a focus on two complementary rural institutions that enhance market access, namely contract farming and participatory farmer cooperatives. The rationales for commercialisation, as well

participatory farmer cooperatives. The rationales for commercialisation, as well as the main problems associated with it are also highlighted in the chapter. This is followed by a discussion on the implications for public policy emanating from the commercialisation pathway or process. The tail-end of the chapter concludes with some recommendations.

2.2 Genesis of New Institutional Economics

New Institutional Economics (NIE) developed as a result of the flaws of neoclassical economics. The neoclassical economics is largely based on the assumption of perfect competition. The basic underlying assumption of the neoclassical economics is that exchange is a frictionless and a costless process and it contends that where costs exist these are passive and therefore not important. In addition, the neoclassical economics provides the theoretical underpinning of structural adjustment and assumes that exchange arises spontaneously from the atomistic interaction of self-seeking individuals. In essence, the neoclassical economics relies on the universal concepts of supply and demand. It makes the market an abstraction device of institutional detail and regards the firm as what Cormier (2001) calls , a "black box".

North (1989) argues that the neoclassical model which has served as the basis of economic reasoning for most scholars holds only under the severely restrictive assumptions of zero transaction costs; but positive transaction costs cause institutions to matter. As a result, Oliver Williamson coined the phrase the "New Institutional Economics (NIE)", which is a vast and a relatively new multidisciplinary field that includes aspects of economics and other social sciences. The NIE does not fundamentally challenge the precepts of neoclassical economics but criticises it for failing to explain the nature of institutions and the role they play in supporting the existence and operation of markets. Institutions, according to Stein (1994) exist as a means of reducing transaction and information costs so that markets can operate efficiently. To quote North,

information processing by the actors as a result of the costliness of transaction underlies the formation of institutions (North, 1990: 170).

NIE has various branches, but there is as yet no consensus on what is included in the NIE. However, there are broad and general salient approaches namely transaction and information cost on the one hand and the theory of collective action on the other. Only transaction and information cost economics will be considered for the purpose of this study. Transaction cost economics predicts that the cost of transacting as determined by institutions and institutional arrangements is the key to economic performance. It argues that the institutions of a country such as its legal, political and social systems determine its economic performance.

In NIE, some of the unrealistic assumptions of the neoclassical model (such as perfect competition, zero transaction cost) are relaxed, but the assumptions of self seeking individuals attempting to maximise an objective function subject to constraints still holds (Poulton, Dorward, Kydd, Poole and Smith, 1998). In addition, institutions are incorporated as an additional constraint.

Williamson developed an analytical framework within which to analyse transaction costs based largely on Ronald Coase's (1937) article, "The nature of the firm". By definition, transaction costs include the costs of gathering and processing the information needed to carry out a transaction, of reaching decisions, of negotiating contracts, and of policing and enforcing those contracts (Williamson, 1985). Similarly, they include the cost of searching for a partner with whom to exchange, screening potential trading partners to ascertain their trustworthiness, bargaining with potential trading partners (and officials) to reach an agreement, transferring the product, monitoring the agreement to see that its conditions are fulfilled and enforcing the exchange agreement.

Williamson presents four basic attributes that organise transactions and economic activity:

- Specificity of assets
- Frequency of transaction
- Uncertainty pertaining to resulting performance of a transaction
- Difficulty in measuring performance of a transaction

The purpose of the NIE is both to explain the determinants of institutions and their evolution over time and to evaluate their impact on economic performance, efficiency and distributional implications (Nabli and Nugent, 1989). Like Williamson, North (1990) suggests that institutions change as communities' rules of the game change in the long run. An important component of the NIE approach is the acknowledgement that economies perform differently because of the way institutions evolve. There appears to be a two-way causality between institutions and economic growth as identified by Nabli and Nugent (1989) as well as Kherallah and Kirsten (2001). Institutions have a profound influence on economic growth and on the other hand economic growth and development result in a change in institutions. It is important to note that not all institutional changes are beneficial to general economic welfare.

2.3 Defining Institutions

Different authors have used quite different definitions, each emphasizing quite different aspects or characteristics of a more general phenomenon. Aspects or characteristics of institutions receiving differential attention in definitions include the degree to which they are (Nabli and Nugent, 1989: 1334):

- Organisational, i.e. the extent to which organisations and institutions coincide;
- formal or informal;
- created at a specific time and place; and
- universal as opposed to particularistic in the interest they serve.

In spite of the above, the most commonly agreed upon definition for institutions is a set of formal laws, contracts, political systems, organisations, markets etc. and informal rules of conduct, norms, traditions, customs, value systems and religion that facilitate coordination or govern relationships between individuals or groups (North, 1989; Kherallah and Kirsten, 2001: 5). North argues that institutions guide and reduce uncertainty in human interaction and they have an influence on our behaviour and ultimately on outcomes such as economic performance, efficiency, economic growth and development.

2.4 Application of NIE to development

In order to understand the application of NIE to small-scale agricultural development it is important to consider the following paragraph from North (2000) as quoted and well documented in Kherallah and Kirsten (2000: 16)

“The cost of transacting, to put it in its bluntest form, is the key to economic performance. When I go to third world countries and look at why they perform badly and examine how factor and product markets are really working, in every case, be it capital, labour or product markets, one observes that the cost of transacting is high. The costs of transacting results in the economy performing badly because it is so costly for human beings to interact and engage in various kinds of economic activity that the result is poor performance and poverty and so on.”

Small-scale producers in less developed countries face many hidden costs that make it difficult for them to gain access to markets and productive assets. Transaction and information costs rate among the barriers that may be influenced by policy. The cost of transacting does in every case come down to the fact that the institutional framework provides the incentives or disincentives for efficient production and incentives for people to engage in activities. Differential transaction cost among smallholders stems from asymmetric access

to assets, information, services and remunerative markets (Holloway, Nicholson and Delgado, 1999).

Handling market access problems requires institutional innovation. This section intends to consider trends in the commercialisation of subsistence agriculture that has potential to catalyse market participation, enhance the velocity of transactions and sustain economic growth in rural communities. The topic is contract farming (CF) as a typical commercialisation model applied in many developing countries. In addition, the importance of participatory cooperatives as a catalyst to market participation will be highlighted.

2.4.1 Farmer Cooperatives, Organisations and Joint actions

Holloway *et al* (1999) argue that a common form of collective action that address market access is a participatory, farmer-led cooperative that handles inputs purchasing, distribution and output marketing, usually after some form of bulking or processing. In principle, cooperatives constitute a very favourable instrument for improving small farmers' bargaining power on the market and channelling to them new inputs and technologies (Abbot, 1993). Cooperatives are institutional arrangements, the importance of which has re-emerged recently to organise small farmers in some developing countries in the age of market liberalisation. By definition, a farmer cooperative is an organisation usually incorporated, owned and controlled by agricultural producers, which operates for the mutual benefit of its members as producers or patrons (Rehber, 1998). The advantages of cooperatives as advanced by Holloway *et al* (1999) and Kherallah and Kirsten (2001) include, inter alia:

- Farmers gain the benefit of assured supplies of the right inputs at the right time, thus a reduction in the transaction costs of accessing both input and product market.
- Improvement of the negotiation power of smaller farmers vis-a vis large buyers or sellers.

- By providing bulking and bargaining services, cooperatives increase outlet market access and help farmers avoid the hazards of being encumbered with a perishable crop with no rural demands.
- Co-operatives can also provide the option of making collateral to farmers.
- Extension is sometimes part of the services provided, typically at higher rates than state extension services.

Producer cooperatives in Africa have generally had an unhappy history mainly because of difficulties in holding management accountable (i.e. moral hazard) to the members, leading to financial irregularities. In addition, Kherallah and Kirsten (2001) assert that one major problem with traditional cooperatives in developing countries was that members never had a major financial stake in the cooperative. Research by Machethe (1990; 308) in Lebowa provides a concise explanation of the factors leading to poor performance of co-operatives, namely;

- Lack of identity with their co-operatives;
- Failure of co-operatives to involve members in policy decision making;
- Failure of co-operatives to compete with other businesses;
- Inability of members to dismiss inefficient management;
- Inability of co-operatives to keep adequate stocks of requisites.

Machethe (1990) further argues that the performance of co-operatives is dependant both on external (e.g. physical infrastructure, product pricing policies, regulatory institution) and internal (e.g proper management) factors. However, there are two main factors that determines the success of co-operatives, namely (Machete, 1990 and Kirsten, 1993):

- Co-operatives can only succeed if they manage to operate with lower transaction costs than their competitors;
- Success or performance of co-operative movement depends on the benefits members derive.

There appears to be a renewed interest in a new generation of cooperative that addresses the weaknesses of the traditional cooperative. The NIE can inform the design of such organisations and cooperatives to prevent their failure (Kherallah and Kirsten, 2001). Although the performance of agricultural cooperatives in developing countries has been marginal at best, improving a cooperative's managerial capability should greatly enhance its business performance, technology transfer to the farmers and its marketing skills. In addition, Fekete, Fenyés and Groenewald (1992) and Abbot (1993) argue that the following undermentioned conditions are necessary for the success of cooperative or other group marketing;

- Availability of local leadership and management;
- Groups of farmers dependent on one or a few crops for their total income;
- An educated membership or educational work among members;
- Members having similar basic backgrounds;
- Concentration upon and homogeneity of farm production for the market;
- Uniform services and uniform prices to members;
- Avoidance of political links as well as maintenance of political and religious neutrality;
- The co-operative must be established as a result of a recognised need in the community;
- Starting with at least one activity and continuity without being heavily subsidised.

Many co-operatives have deviated substantially from some of these principles. For instance, the establishment and the subsequent operation of the South African co-operative movement was governed by the Co-operative Act and regulations (Regulation R117). The South African government played an important role in the establishment of the co-operative movement as an initiator, legislator, controller and financier. Thus government played a leading role in the

establishment etc. with little or no community involvement that lead to lack of ownership and loyalty. As a result farmers generally regarded co-operatives as government businesses (Kirsten, 1993). Fekete et al (1992: 19) argue that "government control and interference should be minimal and it should be the government's task to promote, not to control development including development of co-operatives"

Kirsten (1993) argues that failure of co-operatives were exacerbated by the fact that they were often established as an instrument to combat unemployment and provide power to those disempowered by the apartheid and capitalist regime. Thus, the crux of the co-operatives problem was that they were often started for social and sometimes political rather than business reasons. A factor complicating the operation of the co-operative movement is that the objective functions for the co-operatives are often difficult to specify or even perceptualise (Fekete et al, 1992). According to Machete (1990) co-operatives should be established in order to serve the interests of members and it is only when the majority of members are satisfied that co-operatives can be said to be successful. Thus the success of co-operatives is determined by the extent to which it enables members to realise their objective function or expectations. Responses vary in research conducted by Machete (1990: 306) on reasons for joining the co-operative movement. Some of the major reasons for affiliation mentioned by the respondents were the following;

- Buying goods on credit;
- Sell produce through co-operative;
- For financial benefits;
- Buy goods cheaper;
- It was compulsory.

From the above, it is evident that the objective function for the members of a co-operative varies considerably and thus it is often difficult to ascertain whose interest is to be optimised. As a result some authors prefer to analyse co-

operative behaviour as the process of consultation and bargaining rather than the optimisation of a single attribute (Fekete et al, 1992)

As mentioned above, a new generation of cooperatives known as, bargaining co-operatives has emerged recently in developed countries such as United States. Bargaining cooperatives do not generally handle growers' crops or provide processing services. Their primary function is to contract with processors for the sale of members' crops (Pasour, 1998). There are two kinds of agreement involved in bargaining cooperative, one being a membership agreement between growers and the cooperative, the other is a marketing agreement negotiated with processors. If proved successful, the development of bargaining cooperative in the developing countries could enhance small-scale farmer participation into the market economy. Moreover, as concerns about farmers' lack of bargaining power increase, agricultural cooperatives, though not a panacea, may assume a prominent role in the production and marketing of agricultural products.

2.4.2 Contract Farming and Vertical Integration

Agricultural markets have developed in such a way that well that well developed supply chains and networks are now an absolute necessity to satisfy the needs of the consumers for fresh, high quality and safe products. In this age of market liberalisation and globalisation many product markets are concerned mainly with both quality and safety of the product they sell, to such an extent of specifying the inputs that the farmers have to use for their products. As a result, agriculture is undergoing a process of vertical integration with allied industries and, as argued by Rehber (1998), the control of agriculture may in the future consequently not rest within the industry itself. There are two types of vertical integration – ownership integration and contract production which is commonly known as CF. Presently contract production in farming is more common than ownership integration and many authors regard CF as a vehicle for modernisation which is likely to remain an important – indeed growing – feature

of rural Africa for the foreseeable future. (Glover, 1984; Grosh, 1994; Porter and Phillips-Howard, 1997; Pasour, 1998 and Reynolds, 2002).

Arriving at a meaningful definition of contract is rather difficult. One classic definition provided by many authors (Minot, 1993; Rehber, 1998 and FAO, 2001) refers to contractual agreement between farmers and processing firms, whether oral or written, specifying one or more conditions of production and/or marketing of agricultural products. A standard farming contract regulates in advance price, production practices, product quality and credit facilities. The intensity of the contractual agreements varies according to the depth and complexity of the following provisions, namely market provisions, resource provisions and management specification. There is a great variation in the contract provision, the size of the farmers contracted, the type of technical assistance and services provided to growers, and the bargaining relationship between the buyer and the growers. According to Minot (1993), these variables depend primarily on the commodity produced and its final market, and to a lesser degree on the existing land tenure system, the policy environment and other factors.

CF tends to offer a more attractive option for processors and a viable means of facilitating smallholder integration into the market economy. For smallholder producers, CF offers access to reliable and guaranteed markets, it reduces risk and most importantly, it provides substantial access to inputs and production services. Recognising the role of transaction costs in agriculture is important in understanding why farmers may choose to contract. There is potentially a significant cost associated with monitoring markets for price movements, searching for buyers for their product etc. Other things being equal, these added costs may induce producers to contract in order to economise on transaction costs and allocate more time to production decision. The key point is that CF, *inter alia*, tends to be successful where it succeeds in reducing farm level transaction costs for adjustment to a viable commercial opportunity (Delgado and Siamwalla, 1997).

For processing companies (sponsors), the main potential advantages are that production is more reliable than open market purchases and the sponsoring company faces less risk by not being responsible for production, and CF provides the company indirect access to land. More importantly, consistent quality can be obtained than if purchases were made on the open market.

CF, on the other hand, cannot be considered a panacea for integrating small farmers to the market economy. CF creates its own risk despite reducing others. It has been plagued by many problems in the past such as producers' failure to produce to contract standards resulting in a loss of contracts' premium prices, inability to enforce contracts with farmers, and unequal negotiation and bargaining powers between powerful agri-business and rather weaker farmers (Grosh, 1994; Rehber, 1998 and FAO, 2001). By far the most common problem cited in the literature is the manipulation of quality standards (Glover, 1987). This opportunistic behaviour occurs if an unusually large crop is produced which exceeds the processors requirements; the processing firm may raise its quality standards in order to reject what it does not want. The processing firm may raise quality standards not only to control volume but to get a portion of the crop at a very low price. This possibility of exploitation usually exists when an unorganised mass of smallholders face a monopsonist.

Other risks include the non-renewal or termination of contracts as well as introduction of unsuitable technologies and crop incompatibility. In addition, the farmer loses his independence to some extent varying with contract conditions. That means, the farmer's management function is transferred to another person. Similarly, there is a danger that some contractual arrangements may lead to the farmer being little more than a labourer on his/her own land. Closely related to this is a scenario where independent farmers are replaced by contract growers who simply carry-out processors' orders and when this happens valuable skills may be lost to future generation as well as the present generation. These factors

could contribute to the danger that smallholders might be excluded from contracting arrangements.

Since contracting firms do not own land themselves, they will likely have no interest in good and environmental friendly farming practices such as soil conservation. For this reason Glover (1987) argues that they will indirectly mine the land of their producers by imposing farming practices that produce high yield in the short run with serious consequences such as, for example, exhausting the soil in the long run. Once this occurs the company can simply enlist new growers or move on to another virgin area. Whether or not such a pattern actually occurs depends largely on how much information growers have about the effects of the recommended practices and also on whether the growers really have alternatives.

Contracting is fundamentally a way of allocating the distribution of risk between the firms and its growers. However, while contracts may reduce risk for some farmers, these risks may be transferred to non-contracting producers. Non-contractors are likely to experience greater instability since they would be restricted to the "thin" peripheral market not covered by contracts.

Finally, the other potential problem associated with CF is the application of unsuitable technology and crop incompatibility. The introduction of especially new crops to be grown under conditions rigorously controlled by the processing firm can cause disruptions to the existing farming system. For example, harvesting of the contracted crop may coincide with the harvesting of food crops, thus causing competition for scarce labour resources. Two factors need to be considered before the introduction of innovations to any agricultural environment (FAO, 2001);

- Possible adverse effects on the social life of the community

- Practicality of introducing innovations or adaptations. The introduction of sophisticated technology may result in social ills such as loss of local employment.

Furthermore, the results of research by Maloa and Nkosi (1993) and FAO (2001) offer some suggestions for consideration in forming policy for agricultural development through contract agents, namely;

- Provision of appropriate technology. Technology is a good investment only when the recipients actually receive the tangible benefits it promises.
- Provide basic and reliable infrastructure. A major pre-condition for agricultural investment in rural areas is the existence of an adequate communication system that includes roads, transport, telephones etc.
- Subsidise marketing information and training of farmers. Farmers tend to be rational decision makers when provided with useful and relevant information at the right time.
- Incorporate other crop regimes. Farmers must be allowed a wide choice to exploit their varied potential.
- Convene regular meetings with farmers. Problems emanating from contractual farming agreements can actually be minimised by efficient management that consult frequently with farmers.
- Announce policy changes widely. Policy changes should be announced as early as possible to all those likely to be affected.

With all the above in mind, it is important for both producers and processors to have a collaboration consciousness. It should be emphasized that both sides need each other in order to make a contractual relationship that operates for their mutual benefits. Otherwise, the cooperation brought by CF would always be a source of disputes and dissatisfaction. It is worth noting that contractual agreements are of different intensity and as such problems experienced vary from one contract to the other.

2.5 Issues and Theory of Commercialisation

Smallholder agriculture is simply too important to employment, human welfare and political stability in less developed countries and therefore cannot be treated as just another small sector of the economy (Delgado, 1999). To fully realise its developmental potential, literature emphasises the need for smallholders in Africa to become increasingly involved in the production for sale of high value crops. The previous section introduced the framework and two models under which commercialisation can be practiced and analysed. This section highlights the pros and cons of commercialisation to the rural households. More important it begins by providing a definitional aspect of agricultural commercialisation followed by impact of agricultural commercialisation on households.

2.5.1 Agricultural Commercialisation Defined

Agricultural commercialisation means more than the marketing of agricultural output (Von Braun, Bouis and Kennedy, 1994; Von Braun, 1995; Pingali and Rosegrant, 1995): it means that product choice and input use decisions are based on the principles of profit maximisation. Thus, commercialisation can occur on the output side of production with increased market surpluses, but it can also occur on the input side with increased use of purchased inputs. Commercialisation of agricultural systems leads to greater market orientation of farm production; progressive substitution out of non-traded inputs in favour of purchased inputs and the gradual decline of integrated farming systems and their replacement by specialised enterprises for crops, livestock, poultry and aquaculture products. It is important to note that commercialisation is not restricted to cash crops; the so-called traditional crops are frequently marketed to a considerable extent (Von Braun, 1995).

This study refers to commercialisation from the output side of production perspective. Govereh and Jayne (1999: 2) refer to agricultural commercialisation

as the proportion of agricultural production that is marketed. As such, it can be measured along a continuum from zero (total subsistence oriented production) to unity (100%) of production sold. Thus agricultural commercialisation involves a transition from subsistence oriented to increasingly marketed oriented patterns. A fully commercialised farm may however still produce intermediate inputs, e.g. cotton hay for livestock.

Closely related to the concept of agricultural commercialisation is agricultural modernisation. On priori expectation the two concepts are positively related. In his book, *To create a modern agriculture*, Mosher (1971) argues that there are two conditions necessary for participation in modern agriculture. Firstly, either each farm move towards the commercial end of the continuum or that farmers who produce only or primarily for home consumption have some off-farm employment that produces cash income out of which farm inputs can be financed. Thus in modern agriculture both commercial and subsistence agriculture are not mutually exclusive, but the former seems to be the more likely route.

2.5.2 Rationale for commercialisation

This section draws heavily from a comprehensive empirical study done by Von Braun *et al* (1994) in developing countries including, among others, Gambia, Guatemala, Kenya, the Phillipines and Rwanda. The rationale for commercialisation lies heavily on its potential to increase rural economic growth and poverty alleviation. Such factors are discussed below.

2.5.2.1 Employment effects

Von Braun *et al* (1994) argue that agricultural commercialisation affects the level of employment. Changes may take place in the use of hired labour versus family labour and in the distribution of family labour by gender, as well as the level of

labour input for field operations and for processing. Research by Von Braun *et al* (1994) on commercialisation schemes found large expansions in the use of hired labour in all the studies. This indicated a form of commercialisation of the labour market in the rural economy. In general, women work less on the more commercialised crops than do men or hired labourers. Women generally work much more on the subsistence crops than on the commercialised crops (Von Braun *et al*, 1994). It is therefore expected that favourable wage rate effects from increased employment would spread the benefits of the increased labour demand in agriculture across a broad spectrum of the rural economy. While these general equilibrium effects may be true, the gender distributional effect of commercialisation needs further investigation.

In addition, agricultural commercialisation through CF has influenced labour markets in many regions of Africa (e.g. Kenya, Malawi) and some contracted schemes have encouraged high rates of in-migration to certain countries on a seasonal or long-term basis (Little, 1994). In some cases, the projects have also appeared attractive enough to dissuade rural labourers from migrating to urban areas in search of employment. Thus agricultural commercialisation plays a distributional role, both regionally, nationally and internationally, and to a certain extent this reduces the developmental imbalances between and within regions etc.

However, Von Braun (1995) acknowledges that the employment effects for the poor resulting from commercialisation are very crop specific and such effects are a function of the labour market and the technologies introduced. Thus, the choice of the crop and the technology has a major influence on the actual and outcome of the employment effects. Program and policy decisions in this regard can go a long way to maximise the employment benefit for the poor through backward and forward linkages

2.5.2.2 Income Effects

Von Braun (1995) argues that the large body of literature claiming that agricultural commercialisation has negative effects on the welfare of the poor was mostly conceptually flawed and utilised potentially biased samples. With few exceptions, a study by Pingali and Rosegrant (1995) in some developing countries found that commercialisation of agriculture benefits the poor by offering direct income benefits. These changes result from a combination of increased productivity and increased cash sales. A study by Little (1994) in some African countries reveals that CF increased incomes for a moderate (30-40%) to a high (50-60%) proportion of participants. Other studies show similar results (Von Braun, 1995 and Glover 1989). The direct income effects are further complemented by indirect income effects through forward and backward linkages that are generated by the increased demand for inputs for commercialised agriculture. Similarly, income effect from commercialisation is not restricted to the commercialising schemes and can spread their benefits across regions. In almost all the African case studies conducted by Von Braun (1995), total per capita income was found, *ceteris paribus*, to be higher among the participants.

2.5.2.3 Nutritional and Health Effects

Closely related to the preceding discussion is the phenomenon that increased household income permits households to respond in a number of ways that may favour nutritional improvements (Von Braun, 1995). The income mediated effect on health (nutrition) operates through two main pathways (Kennedy, 1994). First, increased incomes can be used to purchase either a different mix of goods and services e.g. more access to health care, better housing etc. Second, income food consumption linkages, by improving an individual household member's energy or other nutrient intake could improve nutritional status, which in turn could improve health. In addition reduced malnutrition as a result of improved nutritional status has a potential effect of reducing malnutrition-induced mental retardation particularly amongst infants (Wilson and Ramphela, 1989). These

benefits are most likely to be realised when farmers' income, especially that of women producers are raised, nutritional status and food security are likely to improve if additional foods can be purchased.

However, Binswanger and Von Braun (1991) add a word of caution to this debate of benefits attributed to commercialisation of agriculture. The premise that the poor are often better-off in commercial regions is not sufficient to establish a causal link between commercialisation and poverty, either in improving or worsening the lot of the poor. A superior agroclimatic endowment rather than commercial production could account for the greater wealth of the commercialised regions.

2.5.2.4 Food security: Synergies between Cash and Food Crops

Considerable controversy surrounds the issue of whether agricultural commercialisation contributes positively or negatively to food security among commercial smallholder farmers. Govereh and Jayne (1999) argue that there is a relatively neglected avenue of research that concerns the effect that cash cropping can have on the production and productivity of other household activities, including food crop cultivation. These authors advance two potential pathways by which cash cropping may affect the productivity of other crops, namely, household level synergies. This occurs when the household's participation in a commercialised crop scheme enables it to acquire resources not otherwise available for use on other enterprises in the crop mix. Secondly, regional spillover effects occur when a commercialising scheme may attract certain kinds of investments. Examples of these household level and regional level spillover effects include the following (Govereh and Jayne, 1999: 3):

- Credit failure and lack of other financial services is a widespread and general problem in developing countries. Under credit and market failures, commercialisation schemes may be one of the few feasible ways to acquire credit and inputs. In some cases, through interlinked transactions

for inputs, credit, management, and sale of products, the institutional mechanisms between farmers and marketing firms can relieve some of the market failure problems. Strassberg (1997), found, for example, that participation in cotton outgrower schemes in Northern Mozambique was the primary means of acquiring cash inputs for use on food production.

- Commercialisation may support private investment in infrastructure and human capital that has broader benefits for other economic activities such as food crop production. In Zimbabwe, for example, an extensive cotton training program provided by both the government and the private companies provide knowledge that does not only improve cotton management skills but improves the overall quality of farm husbandry.
- The promotion of high-value, high returns enterprises may improve households' ability to invest in lumpy assets such as animal traction. In Mali, for example, 70% of the farmers surveyed by Dione (1989) perceived cotton production and usage of fertiliser as the two most important conditions determining the profitability of animal traction adoption.
- Input-intensive cash crops, by promoting market demand for inputs, may induce private sector investment that improves the availability of key inputs that can be used on a wide range of crops. The introduction of cotton to Southern Mali increased the demand for fertiliser which subsequently stimulated private investment from input manufacturers, distributors and retailers, who decentralised their service into major producing areas.

2.5.3 Negative Impacts of Commercialisation on the Poor

A number of concerns have been raised over possibly adverse consequences of the transformation of agriculture through the process of commercialisation. Some of these concerns are discussed below.

2.5.3.1 Food Insecurity

One of the long-standing criticisms of agricultural commercialisation has been that the amount of food available for home consumption is drastically reduced when households become cash producers (Kennedy, 1998). Conditions under which the poor are likely to lose occurs when the production of staple food for local consumption is displaced by non food cash crops. The adoption of cash crops may therefore raise food prices. But this is likely to be offset by increases in income from the commercialised crop. But if income gains resulting from the switch are not locally accrued by the poor, the poor may lose to the extent that they are net purchasers of food.

Closely related to the above are the unintended effects of green revolution on food production in Asia, for example. The green revolution, which many regard as the principal cause of increased production, is alleged to have aggravated poverty in certain regions. Green revolution introduced, *inter alia*, new high yielding varieties and heavy ploughs which were an early favourite but the latter was abandoned when it was realised that their contribution was to increase chances of soil erosion, a major threat to food security (Baker, 1984). New high yielding varieties on the other hand delivered better yields but also took more out of the soil and demanded intense irrigation thereby causing water scarcity. This aggravated poverty in certain parts of Asia (e.g. India).

Other criticism levelled against the green revolution has been on equity and distributional issues. According to Bradnock (1984) early in 1970s a number of analyses of the impact of the green revolution in different countries, especially in rural Asia, concluded that the benefits of the new technology were being monopolised by rich and middle farmers to the relative exclusion of small cultivators.

2.5.3.2 Asset Specificity

The other way in which commercialisation can impact negatively to the poor is what Binswanger and Von Braun (1991) term "the trap of committed expenses". Asset specificity refers to the degree to which a particular asset is fixed in a particular mode of production. A classic example is that of a cotton harvester. Committing capital to some long-term and highly specialised investment such as a cotton harvester reduces the capacity to adjust to technological breakdown, price risk or disruption of markets. When returns to capital do not materialise, the fixed capital resource cannot be switched to new productive tasks. These risks are highest for the poor, but empirical evidence shows that the poor rarely specialise completely (Binswanger and Von Braun, 1991; Von Braun, 1994 and Foster, 1988).

One other type of risk among those of committed expenses arises when a commercialised project attracts households to migrate to a new area and then the project collapses. For example, the collapse of a rice irrigation project in Gambia led to disinvestments in housing etc. and even increased divorce rates (Von Braun, 1994).

2.5.3.3 Implications for Women and Children

Agricultural commercialisation and new production technology can have profound implications for the control of resources and division of labour in rural households. Reynolds (2002) argues that the growth of commercialisation particularly through CF is likely to stimulate struggles over labour, property and customary household reciprocities and obligations. In most contracts men are assumed to be the growers and heads of the households by the contracting company. As a result, men sign the contract, draw on their childrens' and wives' labour and consequently receive the payments. A study by Porter and Phillips-Howard (1997) on the evaluation of CF schemes in South Africa and Africa in

general found that on the North Pondoland sugar scheme the registration of contracts was around 70 males per 30 females, but women were the principal farmers on at least 70% of the plots. Moreover, women frequently work all year on the cane plots, yet their husbands go to the mill to collect the cane checks at harvest and retain control of the funds. In cultures where men and women have separate spending responsibilities, such as in much of Africa, such payment to men may bias household purchases away from food and health related items (Minot, 1993). In this context it is important to quote the following response from a Dominican Republic women whose household participated in a tomato commercialisation scheme:

"My husband spent all the money from the tomatoes last year on drinks (alcohol). I was very upset because I worked in the parcel from the day of planting. I did not even get paid for the tomatoes I harvested. I put myself out working in that crop and I did not eat even one meal that came from it. None of the money came here to the household" (Raynolds, 2002: 792)

Although this may not be a general phenomenon, it is evident that greater incomes from agricultural commercialisation are not always translated into improvement in standard of living broadly defined to include nutrition, education and health. However, it should be noted that this problem can occur with any income-generating project and is not a problem unique to agricultural commercialisation.

The Guatemalan commercialisation experience impacted negatively on child welfare. The expanded employment increased seasonal use of child labour to such an extent that local communities became concerned about school participation and changed school schedules and the timing of vacations. This was after children started being absent from school and this probably impacted negatively on their school performance. As the South African Government is committed to promoting women's and children's rights, what still remains to be

seen is how these initiatives will impact on the gender relations at the household level as more women contest their present situation.

2.5.2 The Commercialisation Pathway: Implications for Public Policy

Before providing an overview and synthesis of issues in the commercialisation process, it is important to consider the work done by Foster (1998) focusing, *inter alia*, on the definitions of subsistence, commercialising and commercial farmers. He defines these concepts in terms of the continuum that in turn reveals how commercialisation occurs. Such a continuum is shown below.

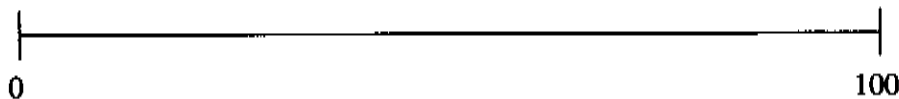


Figure 2.1: Commercialisation Pathway (Foster, 1998: 246).

A farmer can be at any point on this continuum. Note that farmers moving to the right on the continuum devote an increasing proportion of their production resources towards production for the market. Pingali and Rosegrant (1995) argue that countries such as South Africa and much of those in Sub-Saharan Africa are at the lower end of the continuum or commercial pathway.

It is crucial for policy makers, innovators etc. to understand the complex changes that agricultural commercialisation brings to the farmers, their farming activities and also to their social activities and family life. Most importantly, agricultural commercialisation involves changes from the closed ended goal of the subsistence farmer to the open ended and virtually insatiable economic goal (profit maximisation) of the commercial farmer. This new goal brings with it a change in the types of management decisions and in the information needed to make decisions. For instance, associated with new involvement in the market is a group of new risks. These new risks along the commercialising continuum

require new understanding of the nature of the risk, new types of information and new coping strategies (Foster, 1998).

Closely related to agricultural commercialisation as one component of agricultural change is agricultural transformation and agricultural diversification. One very relevant concern for this study is determining how the relationship between agricultural commercialisation, agricultural transformation and agricultural diversification can be analysed at the farm level. Timmer (1997) argues that in the early stages of the agricultural transformation there is a significant diversity when most farm households produce largely for subsistence consumption. At this stage little specialisation exists and markets for local produce are imperfect. Moreover, there are few formal mechanisms to cope with risks of crop failure that would threaten levels of food consumption. As these markets develop, as the financial sector extends risk management tools to rural areas and as incomes of farm households rise above subsistence level, farmers tend to specialise in the production of one or few crops. As a result, economies of scale are created through "learning by doing" effects. This process also results in progressive substitution of purchased inputs for non-traded inputs. Furthermore, as the level of commercial orientation increases, mixed farming systems give way to specialised production units that are designed to rapidly respond to market prices and quality inputs (Pingali and Rosegrant, 1995).

Increased specialisation and commercialisation requires that farmers learn how to cope with a risk that is of little concern to subsistence farmers; the risk of fluctuating prices while at the same time specialisation in crop production, for example, increases their risk from yield fluctuations. Mechanisms for coping with some of the risk that can emerge thus play a crucial role in understanding the commercialisation of agriculture and the governments' role in it.

It is evident from above that agricultural commercialisation is not a smooth and a frictionless process and as such government policy has a crucial role to play in

minimising the risk and smoothing out the process of commercialisation of the agricultural sector. Therefore, the identification of the policies that will speed and smoothen agricultural commercialisation as well as creating the political environment to get policies implemented require urgent attention to the following question. What government actions, policies, investment, regulations are needed to stimulate growth in a market oriented rural economy? In this regard, Pingali and Rosegrant (1995) advance key elements of a long-term strategy to facilitate commercialisation:

- Research and extension to generate productivity and income enhancing technologies. In addition to this productivity objective, the focus of research should be to provide farmers with the flexibility to make crop choice decisions and to move relatively freely between crops.
- Economic liberalisation, including trade and macro-economic reform and deregulation of agriculture.
- Protection against unfair foreign competition such as dumping, unequal globalisation etc. Developing countries in particular must retain the right to protect the agricultural system from instability associated with northern agricultural subsidies (Groenewald, 1998; Watkins and Von Braun, 2002).
- Development and liberalisation of rural financial markets.
- Establishment of secure rights to scarce resources. Secure property rights are critical for efficiency and agricultural growth. Secure rights to land create those incentives that farmers need to invest in land improvements which increase the long-term productivity growth which can be induced by the start of commercialisation.
- Investment in rural infrastructure and markets. Infrastructural investments play a crucial role in inducing farmers to move towards a commercial agricultural system. Emphasis for infrastructural investment should be on improving general transport, communications and market infrastructure.
- General education especially in financial matters.
- Development of appropriate financial services to small scale farmers

In support to the general policies to facilitate commercialisation, support services can increase the benefits and reduce the probability of adverse consequences from the process. Finally, the working of some of the above policies to help the market economy work more efficiently requires the maintenance of both the macroeconomic and political stability, as well as, stabilizing the food economy and ensuring that food security is a minimum task of government (Timmer, 1997).

2.6 Conclusion

The integration of the traditional smallholder agriculture into the commercial agricultural economy is an essential part of a successful development strategy. In view of the acceptance of this premise, the main objective of this chapter was to offer a theoretical overview of the issues relating to the commercialisation of small-scale agriculture in developing countries. The chapter began by providing an overview of the NIE and its application to the commercialisation of small-scale farming. The basic underlying view of this school of thought postulates that institutions are the main determinants of economic performance and that the costs of transacting are the key to the performance of economies. The two institutions cursorily discussed in the study are contract farming and farmer cooperatives, as these institutions are key to increasing market access. These two institutions have their own flaws and as such are not panaceas to solve all related problems of agricultural production and marketing systems. The two main problems levelled against CF in particular relate to contract default, enforcement and the scale of farming operations leading to high per unit transaction costs.

Agricultural commercialisation in general offers many advantages to the rural households and some of these advantages lie in its ability to create jobs for the poor, increase incomes and finally to ensure household food security. However, commercialisation of agriculture is not immune from criticism. The main criticism advanced is that in cases it causes food insecurity and has negative impacts on

both women and children as they may work longer hours without reaping any meaningful rewards. Of course, these criticisms hold true under certain circumstances. It is therefore evident that commercialisation is not a frictionless process. Problems experienced through commercialisation serves to demonstrate the frequent need for intervention either by government or farmers' organisations. The policies needed for a smooth transition to commercialisation include investment in rural market, transportation and communication infrastructure to facilitate integration of the rural economy; improvement in research to increase productivity and extension services to increase flexibility. In this regard, government policies and investment in public goods is crucial for small-scale farmer development. As a concluding remark, government policies must promote and be conducive to private investment in the agribusiness environment.