

## CHAPTER 11: CONCLUSIONS AND RECOMMENDATIONS

This thesis has shown that, the development of non-commercialised goat farmers and entrepreneurs and the transformation of the currently fragmented industry into a formal mainstream industry have been constrained by historical, institutional, market, information, and research factors. Furthermore, the high transaction costs of obtaining (market and other) information, the costs of negotiation and the cost of monitoring have impeded the involvement of non-commercialised farmers in the mainstream economy. Simply teaching farmers the best means of producing goats (or vegetables, or poultry, or cattle: which has defined development efforts in the past) does little to create viable, sustainable (read – profitable) commercial industries in which non-commercialised farmers participate actively in the market economy.

This thesis has examined the biological (Chapters 2, 5, 6, 7 and 8), socio economic (Chapters 1 and 3) and institutional environment (Chapters 2 and 3) in which the goat industry currently operates, and has proposed methods to link it successfully with global markets (Chapters 4, 5, 6, 7, 8 and 9), whilst creating new institutional arrangements of benefit to non-commercialised goat farmers and entrepreneurs (Chapters 9 and 10).

This thesis demonstrates that the task of integrating non-commercialised goat producers into a national and international agro-industrial goat industry requires certain activities. These include product information (Chapters 2, 5, 6, 7 and 8), product innovation (Chapters 5, 6, 7 and 8), market analysis (Chapters 4, 5, 6, 7, and 8), provision of collection, transportation and processing infrastructure (Chapter 10), and culturally acceptable institutional innovations (Chapters 9 and 10). Institutional innovations by themselves are insufficient to encourage entry of non-commercialised farmers and training in itself will not assist non-commercialised farmers to obtain access to the market. Institutional innovations must be accompanied by infrastructure and information transfer. Information transfer is required due to the current lack of knowledge by non-commercialised farmers regarding the value of their goat resource,

potential products that can be manufactured from them and the existence of markets for these products. They also lack the goat management, organisational, business and finance skills which would equip them with the tools to improve the efficiency of their farming enterprises. Those areas of the country where the largest goat resources are found mainly fall within the previous homelands of South Africa. Consequently, the infrastructure of these areas is particularly ill-suited for marketing. Roads are inadequate, communication infrastructure is limited and no collection, processing or marketing infrastructure exists. Institutional innovations are required to replace the exploitive nature of the speculator system, where the next purchase of the product by the market is unreliable and prices are not known. Institutional arrangements which allow a reliable, consistent market for the goats of non-commercialised farmers, and which allow the non-commercialised farmer access to the value-added downstream in the chain are required.

This thesis has shown that the goat resource in the country (mainly owned by non-commercialised farmers) is large enough to ensure a consistent supply of product to the market (Chapter 2). Several historical perceptions, marketing systems and the institutions that governed them are of little consequence today due to changes in perceptions and political changes (Chapter 3). Shifts in global consumer preferences and trends have created a demand for “exotic” (read indigenous) products of interest to the discerning consumer (Chapters 2 and 4). Interesting and innovative product development for specific target markets and based on sound market analysis is key to commercialising an indigenous, previously under-utilised resource (Chapters 4, 5, 6, 7 and 8). The goat resources available (indigenous goats), though variable (Chapter 2), possess unique products with attributes that can be manipulated to suite consumer requirements (Chapters 5, 6, 7 and 8). Finally, infrastructural and institutional arrangements have to be created to link primary producers in deep rural areas (Chapters 9 and 10), who are the main owners of the goat resource (Chapter 2), to markets.

It has been postulated that international trade opportunities and globalisation has created a niche for the commercialisation of indigenous South African goats. However, to successfully enter and occupy this niche, certain enabling institutional arrangements, that are culturally acceptable to non-commercialised farmers, needed

to be created, while at the same time, addressing the global challenges of quality, consistency and high standards that can be affected through traceability mechanisms. Both of these requirements can be affected by vertical co-ordination through “Co-operative Contract Growing” arrangements. Of importance is that vertical co-ordination or the development of supply chains governed through contracts can be used as a development tool to “lock” non-commercialised farmers into a value-chain, allowing them access to the mainstream economy. Each role-player in this supply chain has unique assets and expertise (the farmers own goats but have little knowledge of value-adding or marketing whereas the processors are not interested in farming, but require a reliable source of raw product and are located within these areas: Chapter 9). It has been shown that although spot markets usually occur when the quality characteristics of the product to be traded are certain, and where frequent transactions take place, here, in contrast to the literature, vertical co-ordination is preferred for a different reason: development. Thus, a vertically co-ordinated institutional arrangement better serves the issues surrounding asset specificity, the high incidence of transactions required and the high aversion to risk of non-commercialised farmers.

Vertical co-ordination creates distinctions between the role-players, which open up the necessity of relational contracting since the different firms in the vertical chain are mutually dependant on each other. Contract breach or opportunistic behaviour is reduced by simple, obvious and easily measurable product specifications, trust, communication and collaboration (through inclusive decision-making institutional arrangements), and asset specificity (farmers own the goats and the processors own the expertise and equipment to add value). The observation in the field of high risk-averse behaviour by non-commercialised farmers is supported by results of economic game theory in similar environments (East Africa).

In the development of the industry care should be taken not to infringe on traditional uses of the commodity, and it would be beneficial if aspects catering specifically for traditional and household use are made inherent to the system (Chapter 3). Similarly, organisational forms that are culturally familiar to the producers should be utilised (Chapter 9 and 10).

In this thesis, methods to reduce the costs of transacting for non-commercialised farmers have been described (Chapter 10). These include: reduced costs of animal branding effected through co-operative brand registration (reduced cost of monitoring for traceability); the construction of processing and marketing facilities close to the source of the product (reduced cost of transport to market); provision of training to better understand the market requirements (reduced cost of information); simple product specifications (reduced cost of information and monitoring – measuring the value of the product); vertical co-ordination where others in the supply chain add value (reduced cost of negotiation); farmers are represented on the decision-making boards of the organisation (reduced cost of negotiation); more open channels of communication through co-operative formation (training, manuals, meetings, discussions, information sessions and inclusive decision-making: reduced cost of information). Costs are being reduced by initially accurately identifying interested farmers, providing targeted assistance to them to form self-governing, collective-action groups, providing them with market information and specifications through training and technology transfer, including several options of production and use (different products for different markets), utilising local government organisations to effect the delivery of required infrastructure, and the development of institutional arrangements which link them to the market place.

In contrast to views regarding the reduced role of governments in the global market economy (The Washington Consensus) and subsequently the reduction of their role in development efforts, this thesis has emphasised the role of government funding agencies and programmes and public institutions for the development of an indigenous resource (Chapter 1, 9 and 10). In this work government funding and public institutions has proved necessary for resource surveys, product development, market analysis, infrastructure development, project facilitation and linkages to markets (See also Figure 11.1 below). This is due to the high risk and capital investment involved in developing such ventures, and the aversion of such risk by the private sector (with the exception of philanthropists). Several government programmes have proved useful for the development of the goat industry described in this work (Chapter 10). These include funding for the infrastructural requirements (LEDf) and training (NSF). The importance of being able to transform institutions (policies or laws) to

lower transaction costs has also been demonstrated through the changes in policy regarding co-operative animal branding and inclusion of non-employed farmers into the training mandate of PAETA. However, taking the process further may be constrained by the formal tax and other financial compliance measures that even start-up ventures must comply with in South Africa. A further matter for study entails the methods by which Government structures can wean businesses (created through these funding mechanisms) from government institutions into the future. Systems such as ware-housing of shares for a period of time before complete hand-over, and methods to effectively hand-over require some study.

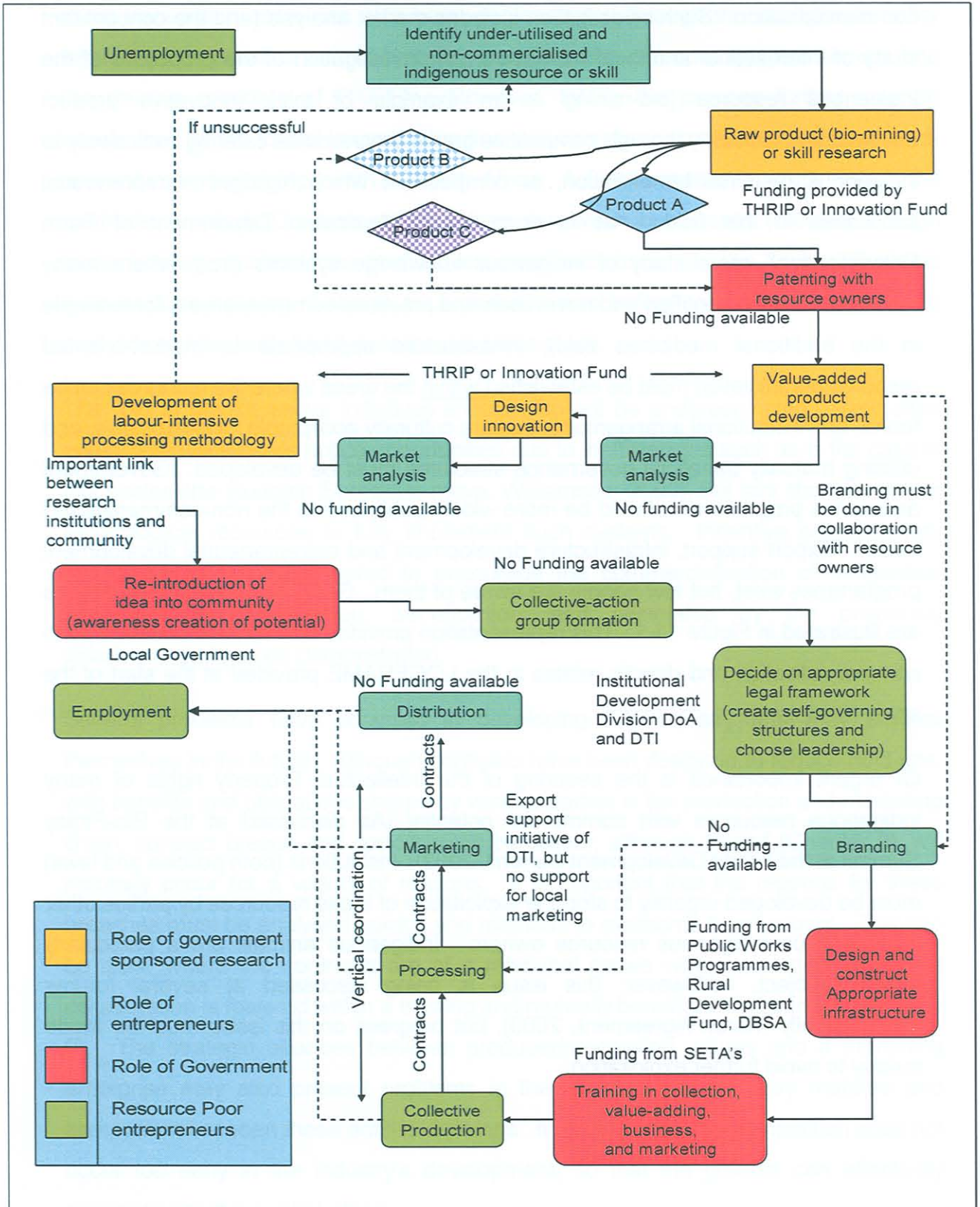
The role of private sector initiatives should also not be underestimated. Very often enterprising individuals notice opportunities due to inefficiencies such as is the case in this sector (the Rudolph Spreckels move: Williamson, 2000), but lack the financial or technological resources to fully implement such systems. Incentive schemes (tax breaks etc.) could be created to encourage the commercialisation of indigenous resources, if job creation, beneficiation, and ownership by the previously disadvantaged can be demonstrated.

Several problems have occurred in developing this industry and may present themselves in the future. Although contracts have been designed to reduce hold-ups, with benefits and obligations shared by various parties in the production and marketing chain, contract breach and opportunistic behaviour, although limited (Chapter 9), will naturally occur for a variety of reasons. It is important that the reasons for these breaches must be analysed quickly and methods to overcome them sought. This can be done where the contracts are of a relational nature where communication and collaboration is fostered within a trusting and mutually beneficial environment (Chapter 9). The strategic alliances between producer/processing groups and a marketing enterprise may also present problems in the future as the industry matures and competition between these entities develops. It is hoped that this competition does not occur too early in the industry's development, so that the product can effectively penetrate into the market-place.

This thesis throws down the gauntlet: Other indigenous resources owned by non-commercialised farmers or the rural unemployed must be investigated for

commercialisation. Such investigation includes market analysis (and the concomitant study of international and local market trends), investigation of the properties of the indigenous resource (bio-mining is an example of this), innovative product development (possibly through competitive grants programmes catering exclusively to indigenous resource beneficiation, or competitions which highlight entrepreneurial successes in this field – as is done in the Australian Department of Farm Diversification), more study of indigenous knowledge systems (from where many resources can be identified and novel uses and practices commercialised, for example in the traditional medicines field), infrastructure appropriate to market-oriented resource beneficiation must be established within the areas where the resource can be found, and institutional arrangements that are culturally acceptable, non-exploitive, and utilising mutually beneficial governance structures must be developed. Government assistance programmes should be more widely publicised to the non-commercialised sector. Export support, infrastructure development and entrepreneurial development programmes exist, but few people are aware of them. Gaps identified in this process are illustrated in Figure 11.1. This representation provides an overview of the steps to commercialisation and directly relates to the LOGFRAME provided at the start of the study (Chapter 1).

Of urgent importance is the securing of the Intellectual Property rights of many indigenous resources with commercial potential (As discussed at the Bio-Piracy Summit at the World Development Summit, 2002). Institutions (both policies and laws) must be developed urgently to stop the exploitation of these resources by parties other than the true indigenous resource owners. Indigenous animals are a particularly difficult subject. However, this issue is being discussed at several forums internationally (Karen Agreement, 2003), but progress on this issue must be made quickly to avoid further exploitation.



**Figure 11.1 Role players, support programmes and gaps identified for indigenous resource commercialisation**

Further study on the longer term effects of the institutional arrangements created here will be required. These studies can investigate whether opportunism develops and, if so, how it is addressed by the non-commercialised farmers themselves. Whether competition develops within the vertical chain as each role-player becomes more confident in their abilities will also be of interest. Other institutional arrangements should be assessed for their ability to successfully commercialise indigenous resources. This would make for interesting comparative analysis. A comparison between successful government support programmes in developing countries with subsidy and rebate schemes in developed countries (regarding the same commodity) may also shed some light on the free trade and development debates around the world.

The methods used in this body of work: from market analysis, through product innovation, infrastructure provision, technology transfer and culminating in institutional innovation and implementation, is a process which can be replicated by other emerging niche industries. The success with which other indigenous South African and African resources can be commercialised remains to be seen.