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Marketing products from local livestock breeds: an analysis of eight cases

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Summary

Local breeds and minor species are hardy and able to thrive in harsh conditions. Their adaptive traits and unique characteristics (coloured wool or hides, extra-fine fibre, meat or milk with special tastes) offer opportunities for the marketing of speciality products and sustainable food production in marginal areas. This study discusses eight initiatives from Africa, Asia and Latin America that help communities to produce and market various products for niche markets: milk and dairy products from dromedaries; cashmere, wool and handicrafts from goats, sheep and Bactrian camels; and meat, meat products and handicrafts from goats and sheep. The main strategies were to seek new markets for existing or entirely new products (rather than trying to exploit existing markets). Most initiatives had some form of branding or labelling, and two had protected their products with geographical indications. Such marketing initiatives can be started with limited capital inputs but are skill and knowledge intensive. They require strong commitment to overcome seasonal fluctuations in production, the lack of infrastructure and services, and difficulties in institution building. But when well planned and carefully managed, they can help conserve breeds as well as provide a livelihood for people involved in the value chain, allowing actors earlier in the value chain – livestock keepers and small-scale processors – to capture a greater share of the value of the end product than they would by trying to serve a mass market.

Keywords: *local breeds, minor species, speciality products, niche markets, livestock diversity, value chains*

Résumé

Les races locales et les espèces mineures sont résistantes et capables de prospérer dans des conditions difficiles. Leurs caractéristiques uniques et de l'adaptation (couleur de la laine et des cuirs, fibre extrafine, viande ou lait ayant des goûts particuliers) offrent la possibilité de commercialiser des produits spéciaux et la production alimentaire durable dans les zones marginales. Ce document présente huit initiatives, mises en œuvre en Afrique, en Asie et en Amérique latine, ayant aidé les communautés à produire et à commercialiser plusieurs produits pour les marchés de niche: le lait et les produits laitiers des dromadaires; le cachemire, la laine et les produits artisanaux provenant des chèvres, des moutons et des chameaux de Bactriane; et la viande, les produits carnés et artisanaux provenant des chèvres et des moutons. Les principales stratégies utilisées visaient à chercher de nouveaux marchés pour les produits existants ou entièrement nouveaux (plutôt qu'à essayer d'exploiter les marchés existants). La plupart des initiatives ont intégré des formes de marquage ou d'étiquetage et deux d'entre elles ont protégé leurs produits avec des indications géographiques. Ces initiatives de commercialisation peuvent être lancées avec des ressources limitées en capital, mais elles demandent beaucoup de compétences et de connaissances. Elles exigent un engagement exceptionnel pour surmonter les fluctuations saisonnières de la production, le manque d'infrastructures et de services, et les difficultés dans la création d'institutions. Mais une fois qu'elles sont bien planifiées et soigneusement dirigées, elles peuvent tant contribuer à la conservation des races que pourvoir les moyens d'existence à ceux qui s'occupent des chaînes de valeur, permettant ainsi aux premiers acteurs de la chaîne – sélectionneurs et petits transformateurs – d'être plus en mesure d'obtenir une part plus importante de la valeur du produit final qu'en essayant de desservir un marché de masse.

Mots-clés: *Races locales, espèces mineures, produits de spécialité, marchés de niche, diversité de bétail, chaînes de valeur*

Resumen

Las razas locales y las especies menores son resistentes y capaces de producir bajo duras condiciones. Sus rasgos adaptativos y características únicas (lana o piel pigmentada, fibra extrafina, carne o leche con sabor especial) ofrecen la oportunidad de comercializar productos especializados y para la producción sostenible de alimento en zonas marginales. Este trabajo trata de ocho iniciativas llevadas a cabo en África, Asia y América Latina, que ayudan a las comunidades a producir y comercializar varios productos para nichos de mercado: leche y productos lácteos de dromedarios, cachemir, lana y artesanías de cabras, ovejas y camellos Bactrian, y carne, productos cárnicos y artesanías de cabras y ovejas. Las principales estrategias consistió en buscar nuevos mercados tanto para productos existentes como nuevos (más que intentar seguir explotando los mercados ya existentes). La mayor parte de las iniciativas se basaron en la creación de marcas o etiquetas, y dos en la protección de sus productos con indicaciones geográficas. Tales iniciativas de marketing se pueden poner en marcha sin necesidad de desembolsar una importante cantidad de capital pero requieren de unas grandes habilidades y conocimiento. Precisan de una fuerte dedicación para superar las fluctuaciones estacionales de la producción, la falta de infraestructura y servicios, y las dificultades en la creación de organismos. Sin embargo, cuando están debidamente planificadas y gestionadas, pueden ayudar a conservar razas, así como a proporcionar el medio de vida de aquellas personas que forman parte de

la cadena de valor, permitiendo a los actores que trabajan en las primeras fases del proceso de la cadena de valor – propietarios del ganado y transformadores a pequeña escala – poder obtener un margen de beneficios mayor del producto final, que lo que obtendrían tratando de atender al mercado masivo.

Palabras clave: razas locales, especies menores, productos especializados, nichos de Mercado, diversidad del Ganado, cadenas de valor

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Introduction

Research and breed improvement programmes in the past century concentrated on the “big five” – cattle, sheep, goats, pigs and chickens – and breeding for production. Locally adapted breeds of these species and other, “minor”, species such as camels, donkeys and yaks were regarded as unproductive and uneconomic, and received little attention. This negative view is changing slowly amid a recognition that in many countries locally adapted livestock contribute substantially to food production and security, provide many non-food services, are valuable gene reservoirs and preserve option values – traits that may currently be of no commercial interest but may be of large value in the future if environmental and economic conditions change (FAO, 2007, 2009; Rodriguez, 2008).

But rural development efforts continue to promote large-scale cross-breeding and breed replacement – often with little knowledge or appreciation of the local breeds they are driving out. Such efforts are now reaching remote areas, and so are likely to speed up breed extinction. This makes it urgent to find ways of stimulating the sustainable use of local breeds and minor species.

A small but growing number of initiatives have started to explore the special characteristics of locally adapted livestock for economic development. A recent book “*Adding value to livestock diversity*” (LPP *et al.*, 2010) describes and analyses eight such cases – three each from Asia and Africa, and two from Latin America – where people in marginal areas produce and market speciality products from local breeds and minor species (Bactrian camels,

dromedaries, goats and sheep). The raw products include wool, cashmere, meat, hides and milk.

This paper summarizes the findings of this book, drawing heavily on the analysis chapter. It describes the cases and the marketing strategies used, and discusses their impacts and sustainability.

The definitions of “breed” and “local breed” in this paper follow the Food and Agriculture Organization of the United Nations (FAO) (2007, pp. 25 and 339).

The cases

Eight cases

The cases represent a range of production systems, from sedentary (the South Africa case), through transhumant (the cases on Kyrgyzstan and goats in Argentina), to nomadic pastoralist (Somalia, Mongolia and Mauritania). In all cases, the animals are kept under extensive management and with few external inputs. The following sections provide short summaries of the cases. The full text of the cases can be downloaded from: www.fao.org/docrep/012/i1283e/i1283e00.htm

Wool and cashmere

- *Deccani sheep wool, India* (by Gopi *et al.*): An NGO has organized shepherds and processors in the Deccan plateau to produce high-value handicrafts from a seemingly



Photo 1. India: The various colours of wool from Deccani sheep. Photo: Ilse Köhler-Rollefson.



Photo 2. Mongolia: Wool from Bactrian camels in southern Mongolia has found a new market in the United States. Photo: Ilse Köhler-Rollefson.

unpromising product – coarse, brown wool from the Deccani sheep, an endangered breed. The project combines community organizing with product design and entrepreneurial marketing (Photo 1).

- *Jaidari (local) goat cashmere, Kyrgyzstan* (by Kerven and Toigoinbaev): The project helps goat raisers in remote mountain areas produce higher-value cashmere by introducing a cheap, simple technology (combs, which cost a mere \$7 each). It also links them with buyers in Europe and Japan.
- *Bactrian camel wool, Mongolia* (by Schmidt *et al.*): Camel wool has many properties that make it attractive to hobby knitters in the United States. A development project and NGO are developing a value chain to link women in southern Mongolia who spin yarn from camel wool with American knitting enthusiasts (Photo 2).
- *Linca sheep wool, Argentina* (by Cardinaletti *et al.*): Women in the Andes foothills of Patagonia weave coloured wool from this local breed and make ponchos and other traditional items. They sell them to tourists through a community-run sales outlet.

Meat and hides

- *Umzimvubu goat meat and hides, South Africa* (by Roets *et al.*): A government-led initiative generates income for farmers in a disadvantaged part of the country through a major investment in infrastructure (an abattoir, tannery and restaurant), research, training, extension activities and institutional development, as well as developing new products (leather handicrafts, meat cuts and sausages) and market linkages (Photo 3).



Photo 3. South Africa: Umzimvubu goats have created a leatherworking industry in the Eastern Cape, based on skins from local goats. Photo: Merida Roets.

- *Criollo goat meat, Argentina* (by Lopez Raggi *et al.*): A university-led project helps producers in Neuquén to obtain a protected designation of origin seal for an existing product (goat meat) to differentiate it in the market and enable producers and processors to charge higher prices (Photo 4).

Milk

- *Dromedary camel milk, Mauritania* (by Abeiderrahmane and Abeiderrahmane): The Tiviski dairy is a commercial venture that has defied expert advice to collect milk from mobile pastoralists hundreds of kilometres away, produce quality products and sell them in a crowded market in competition with imports. Camel milk is a niche product in Mauritania because it caters to a particular segment of the market (people from the north of the country). The Tiviski dairy has also attempted to export a truly speciality product – camel cheese – to Europe, but has encountered bureaucratic barriers that must still be surmounted (Photo 5).
- *Dromedary camel milk, Somalia* (by Nori): Informal networks of local women have established a functioning marketing system that brings untreated, uncooled milk from remote, mobile herders to the growing city of Boosaso – amid the restrictions of the clan system in Somalia and the lack of a central government (Photo 6).

Situation before the niche marketing initiative

In all eight cases, the livestock keepers used to raise their animals mainly or partly for subsistence: They or their families and neighbours consumed much of the meat and milk produced, and they wove the wool into various handicrafts and garments for home use. Most also produced an unprocessed, low-value product (unsorted, unwashed fleeces; hides; live animals and milk) for sale. These



Photo 4. Argentina: Goat producers in Neuquén hope to boost the market for their animals through a protected designation of origin. Photo: Maria Rosa Lanari.



Photo 5. Mauritania: The Tiviski dairy in Nouakchott has established a marketing chain for dromedary milk. Photo: Omar Abeiderrahmane.

items competed with similar, often superior, products from other breeds (white Merino wool) or locations (cashmere from China, imported milk from Europe). None of the livestock-keeping groups had tried to exploit the specific characteristics of their breeds commercially. For this and other reasons, many of the breeds were in decline.

Many of the animals were multipurpose: they also produced various other products and services – milk, tillage, dung and transport. In several cases, the animals in question were not the main source of income or livelihood for the livestock keepers. The Linca sheep breeders in



Photo 6. Somalia: The marketing of camel milk in Puntland is managed by a network of women traders. Photo: Michele Nori.

Argentina, for example, also keep larger flocks of Merino sheep; Somali herders keep cattle and other species besides their camels; and farmers in South Africa grow crops and raise other livestock apart from goats.

Motivation for intervention

Poverty alleviation and economic development were the main motivation for six of the eight cases, while establishing a profitable business was behind the other two (Mauritania and Somalia). Additional motivations were breed conservation (four of the cases, all relating to wool and cashmere), nature conservation (camels in Mongolia) and preserving a lifestyle (sheep in India).

Champions

Seven of the eight cases involved a “champion” – a dedicated individual, group or organization from outside the community of livestock producers, but with intimate knowledge of the local area, who decided to change the situation. Only in Somalia did the marketing effort go back to a local initiative: stimulated by the growing demand for milk from the rapidly growing cities, local women started to market camel milk. Here an external project came in later, helping to improve an existing value chain.

Type of interventions

The projects focused on four different types of interventions.

Animal production

Several of the projects attempted to increase or improve production of the animals that produce the raw materials by establishing breeding herds, increasing the number of animals with the desired traits and improving animal management and health. However, in none of the cases was production of the raw material a major focus of the project.

None of the projects focused on modifying animal production to achieve specific production standards (such as organic production) or other production-related goals (e.g. environmental and breed conservation, or enhanced animal welfare standards). But such goals were indirectly included in the Argentinean goat project, the Mongolian camel case and the South African goats initiative.

Processing

Improving the processing of the raw materials was a major focus in most of the cases. This meant establishing factories (in Mauritania and South Africa), designing new products (in India), introducing new techniques (in Mongolia and India), and improving sorting and grading (in Kyrgyzstan).

Organizing

Organizing groups of producers and processors was key in several cases. This might mean organizing them in production cooperatives, employing them as staff, establishing formal companies or subcontracting work out to processors. Organizing efforts are not always successful, however, as shown by the attempts to form groups of producers or processors in Kyrgyzstan, Mongolia and Mauritania (see the section on Institutions).

Building a value chain

All the cases included efforts to identify markets and build a value chain, linking producers with processors and markets.

Target markets

All cases except for Somalia produce speciality products (see below), targeting environment-conscious consumers, tourists, fashion houses, hobbyists and barbecue party hosts in urban centres. Three of the seven projects export their products (sheep wool in India, cashmere in Kyrgyzstan and camel wool in Mongolia). None focuses primarily on local rural consumers.

In the Somali case, traders sell camel milk to urban residents. It serves more of a mass market, as in Somalia much milk comes from dromedaries.

Marketing strategies

Table 1 provides an overview of the main marketing strategies of the cases. Most of the cases tried to market already existing products, either through labelling an existing product and selling it in an existing market (called “market penetration” according to Ansoff, 1957) or through developing new markets (“market development”). None of the cases started with the development of new products for existing markets (“product development”), although some did so at later stages. Three diversified their product spectrum by developing new products for new markets (“diversification”).

Table 1. Marketing strategies of the eight cases classified according to Ansoff (1957).

Market	Product	
	Existing	New
Existing	Market penetration <ul style="list-style-type: none"> Argentina: goat meat 	Product development
New	Market development <ul style="list-style-type: none"> Kyrgyzstan: goat cashmere Mongolia: Bactrian camel wool Argentina: sheep wool Somalia: dromedary milk 	Diversification <ul style="list-style-type: none"> India: sheep wool South Africa: goat meat and handicrafts Mauritania: dromedary milk

Risk increases from the upper left corner to the lower right corner. The three cases with the highest risk are incidentally all projects with substantial investments either in product design (India) or in processing technologies and infrastructure (South Africa and Mauritania).

The reasons for diversification included a falling demand for established products and the need to find new ways to market raw products. In India, the demand for coarse, coloured wool from Deccani sheep was declining in the markets that shepherds traditionally supplied. The solution was to develop new products (specially designed shoulder-bags) for new markets (foreign buyers). In South Africa, the local demand for goats was sporadic, and so farmers had little interest in raising more animals. Existing customers would not be interested in other products from the goats, and so it was necessary to find new markets. In order to supply these markets with items they would buy, it was necessary to create new products (meat, sausages and handicrafts) and establish a processing facility to produce these materials.

In Mauritania, camel herders had a surplus of milk that they could not sell (because of lack of a buyer) or would not sell (because of cultural barriers). The Tiviski dairy’s innovation was to identify a potential market for this product in the capital city, and to create the facilities needed to bring the milk there, process it and deliver it to customers.

Once these enterprises had developed their new products and established themselves in the new markets, they were free to pursue lower-cost, less risky strategies to expand their sales. They have adopted both product- and market-development strategies. Both the Indian and South African enterprises are continually expanding their range of bags, rugs and handicrafts, and are seeking new buyers and retail outlets. The dairy in Mauritania has also expanded its range of dairy products into various types of yoghurt and cheese made from the milk of cows and goats as well as camels, and has invested in a heat-treatment plant for milk. It sells dairy products to cities other than the capital, as well as to neighbouring countries.

The four Ps of marketing

This section analyses the cases in terms of the “four Ps” of marketing (product, price, place and promotion), highlighting fundamental issues that marketing initiatives need to address.

Products

All but the Somalia case produced speciality products. The Indian, South African and Argentinean sheep cases centred on attractive handicraft designs, while goat raisers in Kyrgyzstan produced unusually fine cashmere. Mongolian camel wool is hypoallergenic, while meat

from the South African and Argentinean goats has a distinctive taste. The Mauritanian dairy products are of high quality and have a long shelf-life.

In all instances, the characteristics of the breed or species are vital features of speciality products. In Kyrgyzstan, the goats' fine cashmere, which evolved to cope with harsh winters, is the most valuable part of the fleece. The coloured wool of the Indian Deccani and Argentinean Linca sheep enables artisans to make handicrafts with distinctive designs. Softness and attractive natural colours are major features of Mongolian camel yarn. The multicoloured hides of the South African goats allow the firm to make a range of attractive leather handicrafts. And the taste of the local goat meat – a result of the combination of breed and environment – is one of the bases of marketing goat meat in Argentina.

Price

None of the enterprises sell their products at prices lower than the competition. Some have deliberately positioned themselves at the upper end of the market. The goat meat in Argentina, for example, is designed to appeal to people willing to pay a little more for an extra-tasty barbecued rib. The Tiviski dairy's strategy in Mauritania emphasizes superior quality and good packaging. And the South African enterprise processes much of its meat into sausages, which can be sold at a higher mark-up than regular cuts of meat.

Although they do not compete on price, they are all affected by market forces and must compete at some level with similar products. India has many self-help groups that make handicrafts, limiting the price that the enterprise can charge for its bags and rugs. The price for fine cashmere is set by the world market, and Kyrgyzstan's poor reputation in cashmere production and lack of market organization surely limit the number of buyers and the prices they are willing to pay. Mongolia's camel wool must compete with other speciality wools used by American hobbyists. And if one Somali milk trader or Argentine poncho maker charged more than the rest, they would quickly find that their product would fail to sell.

Place

In marketing theory, "place" refers to the location where a product is sold – a stall, shop, supermarket or website. The following cases illustrate a number of locations where the products can be sold.

Own sales outlets

The point of sale is especially important for the wool products in Argentina: a cooperative-run retail outlet in the small town of Dina Huapi and a retail store in Buenos Aires are the only places where it is possible to buy the

ponchos and other handicrafts made by the cooperative members. This means that sales staff (local women who make the items for sale) can meet customers and tell them about how the products were made. Running its own sales outlets also allows an enterprise to capture a larger percentage of its products' value, because it is not necessary to give a wholesale discount to third-party retailers. But as the cooperative grows, this may prove too restricting, and it may have to seek new outlets for its products.

Third-party retailers

Three cases rely almost entirely on third-party retailers: The goat meat in Argentina is sold via supermarkets, butchers and restaurants, while the Mauritanian dairy products are distributed through 2 000 retail outlets. The camel milk in Somalia is sold by a network of market retailers in the city.

Mixed outlets

The enterprise in South Africa uses a mixture of sales outlets: It has its own retail outlets (a restaurant and handicraft store) on site but sells much of its produce through third-party outlets: the meat goes to nearby butchers and other small, local retailers, while the leather items are sold through craft retailers throughout the country. The Indian wool-product enterprise also has a mix of outlets: It exports much of its output, sells much of the rest through third-party retailers in India and has started marketing through its website.

Exports

Three cases focus on export markets. In India, the cooperative that manages production recognized that it lacks skills in marketing, and so created a partly owned subsidiary to handle this aspect. Since then, its sales have boomed. In Kyrgyzstan, village organizations sell cashmere to foreign buyers. The Mongolian camel wool is sold through volunteers and an international distributor, and can be bought in hobby shops in the United States. These two cases describe relatively new ventures, and they have not yet managed to establish stable marketing chains.

Promotion

Promotion refers to how the product is promoted and advertised. The following cases illustrate various approaches to promotion.

Emphasizing product features

The features of a speciality product make obvious selling points. Enterprises in each of the cases draw customers' attention to the natural colours of wool, the fineness of cashmere, the superior taste of meat or the quality of the milk. Even in Somalia, where a raw product is sold,

fresh milk sells for a higher price than a product that has gone sour in the heat.

Branding and labelling

The majority of cases describe this. Mongolian camel wool is sold under a special label initiative in the United States; goat meat and leather handicrafts are sold in South Africa under the “Umzimvubu goats” label, while in Mauritania, the Tiviski dairy sells its products in attractive packaging under its own brand. It is not necessary to insist on a brand, however: In India, the wool enterprise does not brand its products but instead relies on the design of its product range to carry its product identity.

Emphasizing local links

Basing the product on a distinctive local tradition ties it in the customers’ minds to that area. That can be important, for example, for products aimed at tourists. An example of this approach is the ponchos and other handicrafts made from Linca sheep wool in Argentina. The cooperative emphasizes local links in various ways: the product itself (distinctive garments – ponchos – woven in ethnic designs), the label showing who made the item (creating an unseen link between the maker and the buyer) and through the sales staff.

Geographical indications

“Geographical indications” are a special type of labelling that make local links explicit and allow producers to label their products in an exclusive way. Two of the cases describe protected designations of origin, a specific type of geographical indication: the “Northern Neuquén Criollo kid” designation in Argentina and the “Gobi desert camel wool” designation in Mongolia. As the Argentina case shows, the process for establishing a geographical indication is far from simple, and once it is established, a great deal of effort has to be put into marketing the product and ensuring that producers comply with the requirements. Geographical indications are relatively new to livestock marketing in the developing world but offer much potential for marketing indigenous breeds.

Project inputs

Research

Research was a key ingredient in seven cases (there is insufficient information about the Somalia project). This research included three types:

- *Production research* studying the production process and the social and economic situation of the producers. This was often done through a combination of formal studies and informal, participatory research that involved producers.

- *Product research* focusing on the product itself: characteristics of the wool or cashmere fibre, breed genetics, milk characteristics and product development. This research required the services of specialized institutions, in some cases located abroad.
- *Market research* investigating the potential market for the product, quality requirements, etc. It was typically done by marketing organizations and consultants.

It is hard to overstate the importance of adequate research when planning interventions such as these cases. But even the most detailed research does not guarantee success: other factors, such as political changes (the European Union’s ban on milk imports from Mauritania), macroeconomic trends (the long-term decline in demand for coarse wool) and unexpected events (the loss of a key staff member, the arrival of a competitor), may ruin an otherwise well-thought-out plan. Good research will anticipate many such hazards, but it cannot predict them all.

Technology

Adding value usually means introducing new technologies. The cheapest inputs in terms of technology were probably in Kyrgyzstan, where the project introduced low-cost combs for the goat herders to buy. The interventions in India, Argentina (sheep) and Mongolia also involved low-cost equipment to card and spin wool.

The cases in South Africa and Mauritania involved large-scale investments in factories, processing equipment and transport. These bigger ventures can potentially benefit larger numbers of people and have a bigger impact on the local economy. But they may also be riskier if the venture has to be handed over to local management (as in South Africa), if the investments do not meet the need of the producers or if markets change.

The latter risks are illustrated by the case from Somalia, where low-cost, community-based interventions (providing milk containers and building basic market facilities) were more successful than the effort to establish a large-scale processing plant, probably because the former strengthened the local value chain rather than trying to modify it according to outsiders’ ideas. The example from Somalia also shows that value chains can develop without any chain-specific outside investment.

Training

Training and extension were a key element in many of the cases. At least four types of training were provided:

- increasing or improving production, such as how to collect milk in a way that meets basic hygiene standards;
- processing to add value to products, such as building skills in spinning, weaving, sorting and grading;
- organization, such as group formation, leadership and cooperative management;

- enterprise development, including business and marketing skills.

Some of the training was formal: Goat producers in South Africa received 10 months of training and a formal qualification on animal production. Other courses were shorter, such as those given to the Kyrgyz and Mongol spinners. Some of the training was on-the-job, for example the experience gained by women who took turns to sell handicrafts in the cooperative in Argentina.

Transport and communication

Transport and communication were key elements in most of the cases.

Arranging transport from the producer to the processing centre or point of sale was vital for live animals or meat and milk, both of which are highly perishable. The South African and Indian enterprises and the Somali milk traders arranged to collect the raw product from the livestock keepers, either using their own vehicles or by third parties. Wool and cashmere are not perishable, and so transport from producer to processor was less critical in these cases.

The problem of obtaining the processed products to the retailer or consumer also had to be addressed in several of the cases. Solutions included using their own or third-party transport or arranging shipments via export companies. At least two cases solved the problem by having buyers come to them: The cooperative in Argentina caters to passing tourists, while in Kyrgyzstan, village organizations rely on visits by traders to buy their cashmere.

Long distances make good communication vital. Much of this communication occurs via established linkages, networks and cooperatives. Where such institutions exist and can be adapted for the new value chain, it is important to build on them rather than to try to create new linkages.

Two of the cases (sheep in India and camels in Mauritania) mention the increasing importance of mobile phones. Signal coverage is still sparse in many areas, especially in remote and mountainous areas, but mobile phones are becoming a vital link between raw material producers and the enterprise they supply. The Internet is important further down the chain. E-mail and websites link the enterprise with customers throughout the world: They enable enterprises to promote products, identify potential customers, negotiate deals, coordinate deliveries and maintain trust.

Standards

All the cases involved some kind of standards for product quality. In some cases, this was imposed by outsiders. Cashmere, for example, is traded according to recognized standards on the world market.

In other cases, the enterprises themselves imposed strict standards. In India, the enterprise sets design criteria to guide the artisans who make the handicrafts and instituted controls to ensure that they comply. The Tiviski dairy in Mauritania also emphasizes quality: It tests all incoming milk, ensures that its products are produced hygienically and takes back unsold produce from retailers to ensure that customers do not purchase out-of-date inventory.

Even in the absence of standards, indirect mechanisms such as demand and prices may foster quality: Members of the Argentina sheep wool cooperative get paid only when the products they have made are sold. In the case in Somalia, milk that has gone sour because of the heat and bumpy roads fetches a lower price than fresh milk.

Institutions

Building some form of institution featured in all eight cases, but the types of institutions varied widely: a loose, spontaneous network (Somalia), production and marketing groups (Mongolia, Kyrgyzstan), coordination bodies (Argentina goats), large, formal cooperatives (Argentina sheep, India, South Africa), and a private company (Mauritania).

Most of these institutions had specialized functions and were active only at the beginning of the chain (the shepherds' cooperatives in India), in the middle (the network of women milk traders in Somalia) or at the end (the organization that distributes Mongolian camel wool in the United States).

Several of the larger institutions had multiple functions and covered most or all of the chain: the Tiviski dairy in Mauritania, the enterprise in South Africa and the cooperative in Argentina. They not only performed functions within the chain (processing, transport, quality control, etc.), but were also responsible for managing the chain as a whole. Still, certain tasks may be left to specialists or groups having the necessary skills. The Tiviski dairy in Mauritania deliberately has not got into the business of producing milk – it leaves this to camel owners who are specialized in this task. The Indian enterprise has handed responsibility for marketing to a specialized company.

Six of the institutions had evolved from development projects that involve government, donors, NGOs, consultancy companies and research institutes. In three of the cases, the institution building has been successful. In India and Argentina, cooperatives manage the production and marketing of wool products. Good product design, active marketing and buoyant demand result in profitable enterprises and rising incomes for members, and attract new members to join the cooperative. A democratic structure and clear rules encourage members' involvement in the cooperative's work. In South Africa, a community-controlled company manages the production and marketing of goat meat

and handicrafts, but governance problems need to be fixed if it is to function properly.

In three other cases, attempts at institution building are still at an early stage, or initial attempts have failed. In Kyrgyzstan and the Argentinean goats case, it is too early to tell whether attempts to institutionalize the marketing have been successful. In Mongolia, the NGO leading the project has tried to create producers' cooperatives to manage the production and marketing of camel wool. But cultural and logistical constraints make it difficult for artisans in widely scattered locations, some of whom are nomadic, to get organized. The NGO is thus left with the task of coordinating production and marketing itself.

The Mongolian case illustrates a dilemma that is typical of market-development projects: Should efforts go first into building local institutions and then to helping them produce products and build links to the market? This approach runs the risk of local people losing interest because they do not see a quick return. Or should the project seek first to match a product to a market, then build the local institutions and transfer responsibility to them? This approach risks failure because it proves impossible to transfer the skills and responsibility adequately.

The Mauritanian case is different because no transfer of skills and responsibilities was involved. Tiviski is a private dairy company that established and manages the marketing chain, and is committed to make it work. The case also illustrates how hard it is to build local-level institutions. The dairy encourages its suppliers to form interest groups or cooperatives. Paradoxical though it may seem, this would be in Tiviski's interest: Strong local groups of suppliers would be negotiating partners on subjects such as prices and quality, and would ease activities such as organizing, payments, quality control and extension work. But efforts to organize such groups have failed, for similar reasons to those in Mongolia: the independent, mobile lifestyle of the pastoralists.

In the eighth case, Somalia, the milk marketing system was established by local women without outside involvement. Like the Tiviski dairy, they have a built-in commitment to making the chain function. Outsiders have tried to improve the marketing system by building infrastructure and providing equipment. This had met with only limited success, however: A dairy established by outsiders operates only part-time because it is poorly integrated with the local system.

External influences

Influences lying beyond the control of marketing efforts include culture and government policy.

Culture

The livestock keepers' culture had an impact on the activities described in the cases. For example, in Mauritania a

taboo initially hindered the sale of camel milk. But this was eroded by the marketing effort and broader social changes. Other restricting cultural factors include the division of labour and caste, and, in the case of pastoralists, mobility. This mobility makes it difficult to organize various types of production and marketing activities.

But the relationship between culture and marketing is not just one way. Marketing efforts link communities to the outside world, and so inevitably induce cultural changes (see the Impacts section).

Policy

In four of the eight cases, government policy was broadly supportive of the enterprise (Mongolia, Argentina sheep and goats, and South Africa), for example, through research and export certification, supportive policies, and granting land and funds.

In India, inconsistent policy on value addition and the withdrawal of government contracts undermined the wool industry in the Deccan. On the positive side, the government has given grants to support the handicraft industry.

In three cases, government has had very little involvement in the enterprise. The Tiviski dairy in Mauritania complains of the lack of government support, while in Kyrgyzstan and Somalia there has been no government contribution to the marketing efforts. In Somalia, the lack of government interference has probably sustained rather than hindered the development of the chain. However, the value chains in Kyrgyzstan and Somalia probably need active government support if they are to develop further, for example by making it easier for the women to obtain credit.

International regulations can act as a severe impediment to the development of value chains. The clearest example of this is the Mauritanian dairy, which has tried to export an innovative product (camel milk cheese) to Europe, only to run up against a ban on imports of dairy products from Mauritania.

Market developments

Rising demand for speciality products allows livestock keepers to charge higher prices for their products. But if the demand exceeds the supply of the local breed, the enterprise (or its rivals) may decide to reduce the amount of the local breed in the product. Wool or cashmere can be blended with more plentiful fibres; camel milk can be mixed with cow's milk; sausages can be made with a mixture of meats. Pressure may arise for other breeds or a larger area to be admitted to a protected designation of origin. Enterprises may cheat, passing off one product for another. None of these have yet occurred in any of the cases, but they do happen elsewhere.

Rising demand may also trigger producers to raise more and more animals, resulting in overgrazing (see the Impacts section). Companies may start sell similar items to the same market, out-competing the original producer group or driving down prices – a common phenomenon wherever a product gets popular.

Impacts

The marketing efforts have at least six potential impacts: on the beneficiaries, pro-poor effects, local breeds, the culture of the beneficiaries, the environment and gender.

Beneficiaries

The largest enterprises (Mauritania and South Africa) have the largest number of beneficiaries (over 3 000 families each, counting producers and employees). The amount of information on the other cases is limited, but it seems that numbers vary from about 50 (Mongolia) to 1 500 (Argentina goats).

Livestock keepers

In all cases, the livestock keepers benefited through higher, more stable prices, increased demand for their products, a more reliable market, or some combination of these items. These outcomes were reached by enhancing the quality or the amount of raw material or creating a market for it.

Only in three cases were the livestock keepers themselves responsible for adding value to the product. In Kyrgyzstan, women goat keepers comb the fine cashmere from their animals' coats before shearing the fleece. In Argentina, it is the women sheep raisers who make the ponchos and handicrafts sold in the store. And in Mongolia, women pastoralists spin the camel wool that is shipped to the United States.

In the Argentinean goat case, the value is added through labelling – in which the livestock keepers have no direct input – but at least some of the higher price accrues to them.

The livestock keepers also benefit in another, more intangible way. By becoming part of a value chain that increases their incomes without damaging the environment, they can gather government support. This is important in areas where governments tend to view livestock keepers, especially itinerant ones, as a problem or threat, and try to get them to change their lifestyles, settle in permanent locations and start growing crops.

Processors

In four other cases, the livestock keepers benefit only indirectly through higher demand or a more reliable market. The value addition is done by others: artisan members of self-help groups in India, employees of the Tiviski dairy in Mauritania and the enterprise in South Africa, and women traders in Somalia.

Reasons for this include the technology, skills and scale needed to, for example, transport over long distances, make sausages, supply packaged items to supermarkets, cool and pasteurize milk, comply with supermarkets' hygiene requirements and produce large amounts of uniform products.

Service and input providers

In all the cases, people other than livestock keepers and processors also benefit. They include transport companies, retailers, and suppliers of inputs and services at each stage in the value chain.

Pro-poor effects

As described above, marketing of products from local breeds has increased (or promises to increase) the incomes of various groups. It may have the fortuitous effect of being pro-poor by default because it is often the poor who keep local breeds (LID, 1999) and the type of work or amount of income generated may make it unattractive for wealthier individuals. In Mongolia, for example, the larger-scale herders did not get involved in spinning wool: They were too busy managing their herds and maybe did not need the small amount of additional income generated through spinning. Much of the spinning was therefore done by women in poorer households and rural centres.

In addition to such inherent pro-poor effects, several of the cases consciously attempted to help the poor by scaling up through creating self-help groups (India), providing a market for small-scale farmers (South Africa) and paying the same price per litre of milk regardless of how much milk the animal's owner delivers (Mauritania).

Such choices can be commercially painful. Dealing with a large number of small-scale producers is costly and presents challenges in quality control. The enterprise in South Africa is under pressure to buy animals from commercial farmers outside the district and so it can guarantee the supplies it needs. And the Tiviski dairy in Mauritania knows that dealing with small amounts of milk from many suppliers is expensive.

But seemingly positive pro-poor effects may also have their downsides (although the cases do not mention these). For example, animal owners may be tempted to sell as much milk as possible, leaving less for the (hired) herders, their own families or the calves. That may result in a paradox: a higher cash income but impoverished labourers, malnourished children and higher calf mortality.

Breeds

The wool and cashmere cases generally report a positive stimulus on the breeds and species in question. Increased demand or higher prices encourage livestock keepers to keep more of the animals (as in the India and Argentina sheep cases), and prevent cross-breeding and establish

elite breeding herds (as in Kyrgyzstan). A successful value chain can also convince governments that it is worth protecting and investing in a breed and in the things needed to support it – such as ensuring access to public grazing land and providing veterinary care.

At least two of the cases (Mauritania and South Africa) experience problems in obtaining sufficient supplies of the raw product (camel milk and live goats), despite offering a reliable market and guaranteed prices. It appears that other factors – climate, availability of grazing, political factors and culture – influence the availability of the product, and perhaps the fate of these breeds. And without strong links between the product and the breed, enterprises may be tempted to use raw materials from other breeds or species, or from cross-breeds, to increase output (as in Kyrgyzstan).

Many animals produce more than one type of product, and these products may compete with one another. If a livestock raiser discovers that it is more profitable to sell live animals or meat rather than milk or wool, the breed itself may be endangered – as was the case in Mongolia before the start of the camel wool project.

Culture

Marketing efforts can both undermine and reinforce local culture. For example empowering women, trivializing traditional products in order to please tourists, opening contacts with a consumer society or encouraging mobile herders to settle in one place potentially can weaken the local culture. The outcome of such changes finally depends on how society handles them. If empowering women leads to increased divorce rates as reported in the Mauritanian case, the women will be better off only if the traditional or national law does not outcast or disadvantage divorced women.

In other instances, the marketing efforts can reinforce the local culture, for example, by increasing the awareness and pride of local people and outsiders in their cultural values (including the local breeds), empowering local people to press for their interests, encouraging them to rediscover lost skills or reviving traditional handicrafts.

Environment

Two of the cases included environmental conservation as specific goals: The Mongolian camel project began as an environmental conservation initiative and was implemented by a conservation NGO. The Criollo goats initiative in Argentina includes environment in the criteria for its protected designation of origin certification. In both these cases, impacts on the environment of the marketing activities are indirect rather than explicit.

Linking livestock keepers to a value chain may have adverse effects on the environment. This may occur if the owners begin to keep more animals than the

environment can sustain. In India, shepherds are increasing the size of their flocks, and so the enterprise is trying to persuade them to grow fodder crops rather than overgrazing the pasture. Adverse effects may also occur if the mobility of pastoralists is constrained. In Mauritania, pastoralists have a choice: They can either stay in the vicinity of the milk collection points or take their animals in search of better grazing but risk losing income from milk sales. Their choices are reflected in the dairy's seasonal purchases of camel milk.

In Somalia, a more flexible system has emerged, where the milk collectors – themselves community members – follow the herds during the migrations. This enables and encourages mobility. Even here, though, some herders have begun to keep their lactating camels near their huts where they can milk them easily, while sending non-lactating animals further afield.

Broader trends may mask or accentuate the environmental effects of a marketing project. In most countries, rapid urbanization, population growth, changing lifestyles, the conversion of land to other uses, the decline of mobile pastoralism and climate change are much larger influences on the environment than the creation of a value chain for a particular product. In Mauritania, for example, it is unclear whether the tendency for pastoralists to settle in one location is because of the dairy's milk purchases or part of a broader trend towards settlement and urbanization. While the causes for such changes lie outside its control, a marketing initiative can reinforce them, accept them as a fact of life or try to counteract them.

Women

Marketing of products from local breeds and minor species offers benefits for women, especially if the products are fibre or milk based. Women are directly involved in all the cases in various activities: production, processing and marketing.

Women and men often play complementary roles in livestock raising: Men typically manage the larger animals (cattle, camels), shear the wool and sell high-priced assets such as livestock. Women typically are responsible for smaller animals (sheep, goats) and calves, handle activities such as spinning and weaving, and sell low-priced products such as milk and wool. This division of labour is most clearly shown in the Somalia case.

This distinction opens the possibility for value chains to empower women and benefit them economically. Women in our cases earned income, learned skills, and gained power and respect in their societies. They also invested significant amounts of time and effort in work that can be tedious (spinning), physically demanding (hauling heavy milk cans) or hazardous (travelling long distances). They are forced to balance this work against other demands on their time, such as childcare, household

work and managing livestock. Their other commitments may limit their incomes from the marketing activities. More women might benefit if equipment could be introduced to reduce drudgery – although introducing machinery sometimes means a shift in tasks and benefits to men.

Development efforts aimed at women frequently find that men become interested when they see that an activity can earn money. They take over, leaving the women behind.

Sustainability

How sustainable are these marketing initiatives? Four cases appear to be sustainable. In India, the wool enterprise has a profitable business model, a growing pool of suppliers and long-term relationships with its buyers. The poncho makers in Argentina appear to be serving a niche, although it is unclear how large its potential market is and whether it can grow significantly. In Mauritania, the Tiviski dairy is the market leader; it has a long history of creating innovative products and successfully competes with lower-priced rivals. The discovery that camel milk has therapeutic qualities is opening up a promising niche market of diabetic or health-conscious consumers. In Somalia, the women traders supply a rapidly growing urban market with a vital product.

That does not mean that these initiatives are secure. Foreigners' tastes for Indian handicrafts may change, a recession in Argentina may mean fewer tourists with less money to spend on ponchos, subsidized imports from the European Union may ruin the Mauritanian dairy's sales, civil war may disrupt the Somali milk traders or a reinvigorated government may introduce taxes or hygiene and veterinary controls. But these are risks similar to those faced by many businesses, and not just in the livestock sector or in the developing world.

The future of the other four enterprises is more doubtful. The Kyrgyzstan goats initiative shows promise: It is based on an existing resource and is not capital intensive. However, it depends on transferring knowledge and skills, establishing a reliable value chain and building strong local institutions. It is also sensitive to the world price for cashmere and the activities of Chinese traders in country. Government support is needed to ensure that this chain can become better established.

In Mongolia, the camel wool initiative must make the difficult jump from a project-sponsored activity to a self-sustaining business venture. It is necessary to nurture local institutions that can coordinate the wool production and marketing. Without this, the enthusiasm of the donors and volunteers will eventually wane, and local people will be unable to take on their roles.

In South Africa, the goats enterprise must overcome governance problems and ensure a reliable supply of live animals so that it can expand its operations. This will

probably mean putting more emphasis on its commercial operations rather than its social responsibilities. This is a large project, and so it is in the interests of the government, its main sponsor, to ensure that its money has been invested wisely.

The Criollo goats initiative in Argentina is too new to judge whether it will be a success. As the first application under the law that governs the country's protected designations of origin, it is charting new territory. Much will depend on whether consumers can be persuaded to pay extra for a speciality product, whether the board that manages the designation of origin functions as hoped and whether livestock keepers can benefit financially from the labelling. An additional risk is competition: If Argentina's many other meat producers see it as a successful marketing effort, they are likely to imitate it, driving down prices and eliminating any financial benefits for the Criollo goat keepers.

Recommendations

What elements are needed for a marketing initiative based on local breeds and minor species to be successful and sustainable? Here are some suggestions:

- *Use existing resources.* The initiative should be based on existing resources: the livestock breed, natural resources, traditional knowledge and human resources, and use the environment in a sustainable way.
- *Identify a suitable entry point.* To conserve a breed or benefit livestock keepers, it may be better to focus on some aspect of the chain other than working directly with livestock keepers. For example, developing an urban-based processing industry to increase demand for the raw materials may be the best way to benefit livestock keepers (or conserve the breed).
- *Start small.* The initiative should invest first in human capital and at a small scale, rather than in costly infrastructure. If the activity works, it should then seek more capital investment.
- *Do the research.* It should be based on a thorough understanding of the production system, the product and the market. That means studying the breed and its characteristics, the livestock keepers and their production system, the range of potential products and the potential customers for the products.
- *Identify special characteristics of the breed.* The initiative should seek ways to market products that reflect these characteristics: by creating new products, refining existing traditional products or finding new markets for existing products.
- *Find a viable business model.* The initiative should generate income for all actors in the value chain.
- *Focus on quality.* It should emphasize the need to maintain quality. A speciality product can command higher prices only if it is superior to alternative products.

- *Build capacity.* It should stimulate the creation of strong local institutions and train people in technical and management skills.
- *Do not depend too much on outsiders.* The initiative may require significant support from outsiders over the medium term but should not depend on expertise or funding from outsiders over the long term.
- *Ensure long-term demand.* The product chosen should be one where demand is likely to grow over the long term.
- *Do not put all your eggs in one basket.* The initiative should be based on a range of products and markets: That way, it is not a disaster if one product fails to sell or one customer refuses to buy.

Conclusions

Local breeds have special characteristics providing the basis for the production and marketing of unique products. This offers one of the few opportunities to increase employment and incomes in remote, marginal areas and can improve the livelihoods of livestock keepers and people involved in the processing and trade of products. It may especially benefit women and the poor because it is normally the poorer livestock keepers who maintain the breeds or who have the skills to process the products.

Efforts to promote marketing from local breeds and minor species may help local people connect to markets for the first time, giving them skills that they can use in exploring other markets and developing other enterprises. They may allow actors earlier in the value chain – livestock keepers and small-scale processors – to capture a greater share of the value of the end product than in a mass market. This will make it attractive for these actors to continue and expand their businesses.

When setting up an initiative to market speciality products from local breeds, key challenges to overcome include the following:

- The products of local breeds may currently have low quality or be available only in small quantities or during certain seasons.
- Local conditions are often demanding, with distance, drought, disease, and a lack of infrastructure and services all making production and marketing difficult to manage.
- Organizing producers and processors may be difficult, especially among mobile pastoralists.
- Livestock keepers may lack the capacity to manage a market-oriented business.
- Government policies and institutions may be unsupportive.
- It can be difficult to identify a suitable market for products and to establish reliable links with customers, especially in export markets.

Impacts on breeds, environment and culture can be both positive and negative and may require strategies to manage potential problems and mitigate negative outcomes.

Marketing speciality products is by nature relatively small scale. For large numbers of producers, it cannot replace the need to produce products for a wider, mass market. But for local breeds, it may be possible to find a match between the qualities of the breed, the features of a particular product and the demands of a specific market. Making this match will help conserve the breed as well as provide a livelihood for people involved in the value chain.

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