



**SMALLHOLDER
DAIRY PROJECT**

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SDP POLICY BRIEF 9



Improving access to knowledge and information in Kenya's smallholder dairy industry

Key points

- Access to information is a constraint for many actors in the smallholder dairy subsector, and uncertainty exists regarding the quality and reliability of the information that is available.
- In a liberalized dairy sector the respective roles played by public and private sector actors in information dissemination need to be clarified and coordinated.
- Professional associations and industry bodies could take a lead in improving accountability and quality of information, to the benefit of all in the industry.
- Groups play a critical role in the sector, and need better support and information on effective group management.
- Particular benefit could be gained from addressing the information needs of small-scale milk traders.
- A network of information centres could improve access to information by all actors.



Background

For a dairy industry to function effectively and efficiently all actors, whether producers, market agents or consumers, need good information on a variety of subjects (table 1). Facilitating the flow of such information presents a particular challenge in Kenya, where the dairy industry is a major source of livelihood and is predominantly based on small-scale production and marketing.

A comprehensive review of the knowledge system of the complex smallholder dairy subsector was conducted by the Smallholder Dairy Project (SDP) between November 2002 and May 2003 (box 1).

Table 1. Some types of information important for the dairy sector

Production	<ul style="list-style-type: none"> ■ Fodder and concentrate feeding ■ Breeding ■ Animal health ■ Calf rearing ■ Clean milk production ■ Policies on dairy production
Marketing	<ul style="list-style-type: none"> ■ Prices ■ Market outlets ■ Processing ■ Milk handling and transport ■ Milk and milk product storage ■ Policies on milk marketing, transport and processing
Consumption	<ul style="list-style-type: none"> ■ Purchase of safe, nutritious milk products ■ Storage and consumption of milk and milk products

Box 1.
SDP review of the knowledge system of Kenya's smallholder dairy industry

The survey used the rapid appraisal of agricultural knowledge systems (RAAKS) method, a participatory methodology for understanding information flows in complex systems¹. The method involves working with multiple actors to describe and understand how they generate, access and pass on relevant information. Findings are used to facilitate action planning to address constraints and utilize opportunities found in the system.

A series of workshops and interviews was held at national level and in three districts - Nakuru, Vihiga and Kiambu. Workshop participants identified a wide range of actors to be interviewed (table 2). Various RAAKS tools were used to explore the roles, objectives, linkages and impacts of different actors from their own perspectives. Feedback meetings of the study teams clustered findings and brought out key areas of constraint and opportunity. These were explored in further key informant workshops to verify the findings and to start working towards action plans for improvement.

Findings

Key policy-relevant findings of the study are presented below, and illustrated with some specific examples.

1. Lack of access to information constrains a complex smallholder dairy subsector

A large number of private, civil society and public actors are involved in generating and making available information. Linkages between actors are complex but are presented in a simplified manner in figures 1 and 2. Figure 1 presents information flows between actors at a local level (including the local extensions of national groups); figure 2 presents information flows between high-level actors at a national level, indicating where information feeds through to local level actors. Information flows are classified by colour (see key); more important flows are represented by thicker arrows. In some instances (for example informal milk traders in figure 1) internal flow among individuals in some actor categories is also represented.

Linkages between these actors are often weak, and almost all actors in the study had problems accessing and passing on information². Particular constraints were identified as follows:

- Lack of awareness of sources: Several actors, such as small-scale farmers and traders, were unaware of where or how to access information. Licensing of small-scale traders, who play a crucial role in the dairy sector, may help them to access information, and this issue is now being addressed by the Kenya Dairy Board and non-governmental organizations, supported by SDP research³.
- Inability to access sources: It is difficult, for example, for individual farmers to link with the wide range of actors who could provide technical information on milk production and handling. Public researchers and extension workers have limited resources or opportunities for accessing and passing on information.
- Information gaps: There is a lack of information provision in such areas as markets and prices, credit, finance and legal services, business services and effective group formation and management.
- Weak links in the chain: Formal public research-extension linkages exist but are often ineffective⁴. Some of the most effective sharing of information was based on informal links between individuals, including spread of information between farmers.

Table 2. Some of the actor categories in the smallholder dairy subsector

Producers	<ul style="list-style-type: none"> ■ Farmers (individual) ■ Farmers (mixed) groups ■ Farmer cooperative or registered groups ■ Farm workers
Support services (private and public sector)	<ul style="list-style-type: none"> ■ Feed/drug manufacturers ■ Feed/drug stockists ■ Artificial insemination providers ■ Animal health service providers ■ Credit agents ■ Extension agents ■ Milk marketers/processors/traders ■ Livestock traders
Government and other institutional support	<ul style="list-style-type: none"> ■ Agricultural ministry workers (agriculture/livestock/veterinary) ■ Other government and parastatal officials (including Kenya Dairy Board, Kenya Bureau of Standards, community development officers) ■ Provincial administration ■ Research organizations
Civil society	<ul style="list-style-type: none"> ■ Non-governmental organizations ■ Community-based organizations ■ Schools and training institutions
Market	<ul style="list-style-type: none"> ■ Milk consumers

Figure 1. Smallholder dairy subsector: Local-level linkages

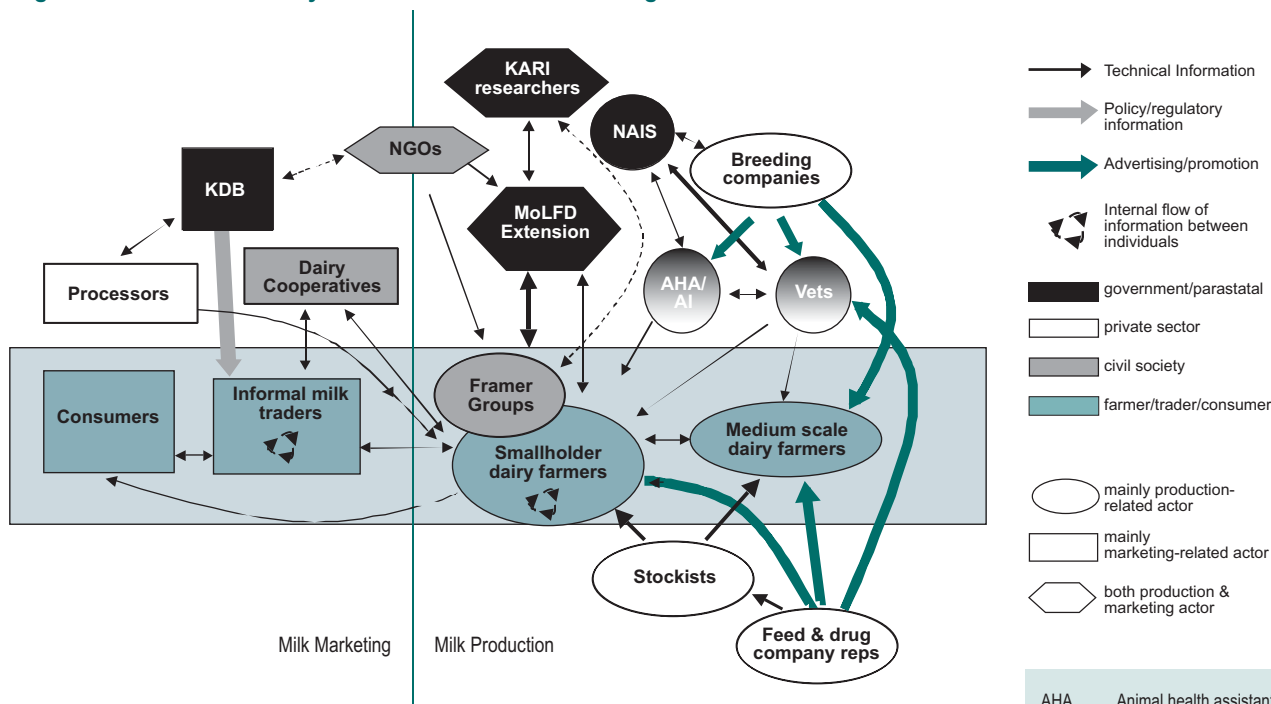
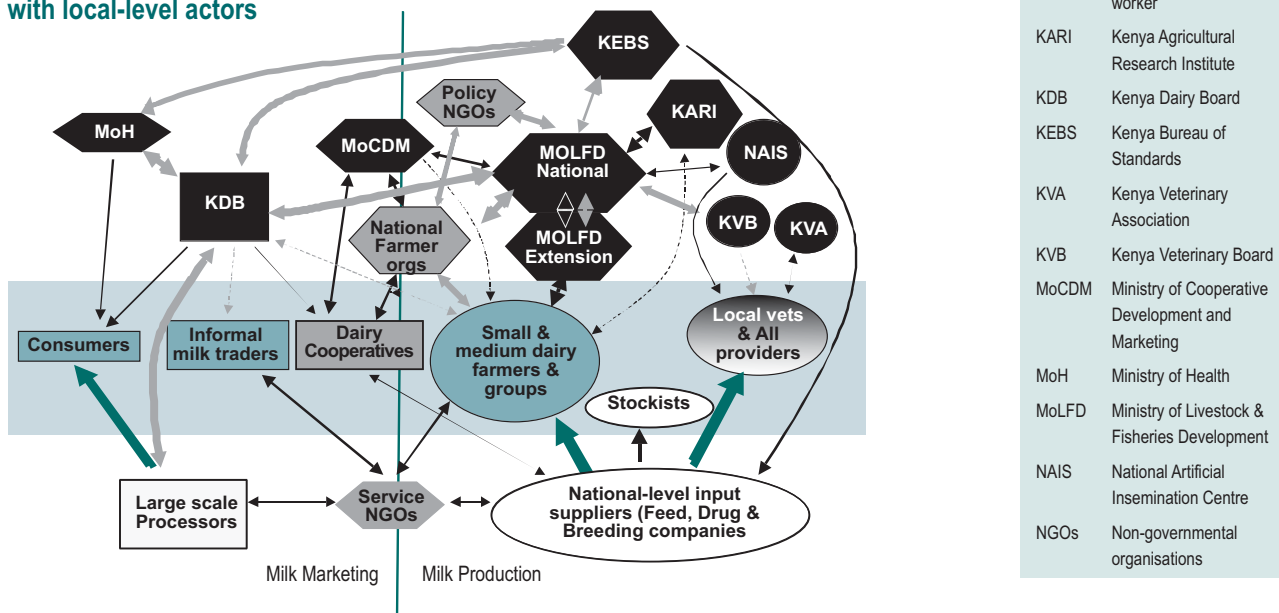


Figure 2. Smallholder dairy subsector: National-level linkages, including linkages with local-level actors



2. Problems of information provision occur in a liberalized dairy sector

Problems may arise when both public and private sector actors provide information within a recently liberalized dairy sector:

- Inconsistent quality of information from private sector: Private suppliers of feeds and drugs provide information on their products to farmers. However, farmers have no means of judging the accuracy of this information. In addition, there is little effective regulation of the quality of this information through enforced advertising standards.
- Lack of information on animal health: Private animal health workers (vets and artificial insemination practitioners) are generally viewed

as service providers rather than sources of information. They often lack support from their professional organizations towards providing a service in which information is valued.

- Low appreciation of the value of information: Dairy farmers show greater willingness to pay for inputs and services than to pay for information. This may be because of limited farmer capacity to convert information into tangible benefit; or because it is felt that information should be provided free. Private and public sector roles are not clearly differentiated by actors.
- Limited public sector resources: Public extension workers were seen as sources of good, unbiased information, but were rarely met by individual



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The Smallholder Dairy Project (SDP) carries out research and development activities to support sustainable improvements to the livelihoods of poor Kenyans through their participation in the dairy sub-sector. SDP is jointly implemented by the Ministry of Livestock and Fisheries Development, the Kenya Agricultural Research Institute, and the International Livestock Research Institute, and is funded by DFID.

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farmers. National policy recognizes a reduced role for public extension in the dairy sector, and resources are increasingly stretched.

3. Groups play a key role in the dairy sector, but need support

Farmer groups are an important focus of engagement for most agents of information, including extension services and non-governmental organizations. Well-run cooperative societies can provide their members with excellent access to information and services.

However, information on effective management of farmer and trader groups is fragmented and difficult to access. The efforts of government and civil society organizations to provide support for groups need to be better coordinated and more widely publicized.

4. Demand exists for a network of information centres

The value of some kind of network of information centres was often mentioned by both users and suppliers of information during the study. A key informant workshop recommended significant private sector involvement, bolstered by close collaboration with the public sector.

A system of interlinked centres could provide basic lists and information at the local level, with linkages to larger centres providing a wider variety of information and access to computer-based resources and training.

Policy implications

The study of information exchange in the smallholder dairy subsector highlighted a number of potential policy directions:

- The role of public extension in a liberalized, commercially-oriented sector needs to be clarified, and support given to enable extension workers to act more as unbiased facilitators of information from other sources.
- In order for farmers and others to have reliable access to good information from the private sector, the accountability and professionalism of input and service suppliers must be strengthened through the activities of professional and industry bodies⁵. Advertising standards implementation should also be improved, both through enforcing existing legislation and through self-regulation.
- Ongoing activities to promote and strengthen farmer and trader groups should continue, with increased emphasis on how they can improve members' access to information.
- Access for all actors to a sustainable and relevant network of information centres could be improved by effective partnerships between existing public resources and private sector actors.
- The particular information needs of the predominant small-scale milk traders need to be addressed in innovative ways, with the Kenya Dairy Board taking a lead role.

¹ Salomon, M.L. and Engel, P.G.H. 1997. Networking for Innovation: A Participatory Actor-Oriented Methodology. Royal Tropical Institute, the Netherlands.

² This is consistent with the findings of a previous study into knowledge and information systems for smallholder farmers in Kenya: Rees, D., Momanyi, M., Wekundah, J., Ndungu, N., Odondi, J., Oyure, A., Andima, D., Kamau, M., Ndubi, J., Musembi, F., Mwaura, L. and Joldersma, R. 2000. Agricultural Knowledge and Information Systems in Kenya - Implications for Technology Dissemination and Development. AGREN Network Paper No. 107, Overseas Development Institute, London.

³ See brief 1, 'The Demand for Dairy Products in Kenya'; and brief 4, 'Public Health Issues in Kenyan Milk Markets'.

⁴ Public research and extension are currently being addressed by the new Kenya Agricultural Productivity Program (KAPP), implemented by the Kenya Agricultural Research Institute (KARI). The study described in this policy brief was carried out before the formation of the new Ministry of Livestock, so priority and decision making in dairy-related research may change.

⁵ Such bodies include the Kenya Veterinary Board (KVB), Kenya Veterinary Association (KVA), Kenya Association of Livestock Technicians (KALT), Kenya Association of Manufacturers (KAM), Agricultural Association of Kenya (AAK) and Association of Feed Manufacturers (AFM).