



Photo: J. Boethling

## The livestock challenge

In developing countries, the livestock sub-sector accounts for more than a third of the agricultural gross domestic product and is growing faster than most other agricultural sub-sectors. When it comes to development cooperation and allocation of resources, however, the sector is often overlooked. It is above all the smallholder farmers who are bearing the brunt of this development. Their livelihoods frequently depend largely on livestock.

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Livestock are a form of natural capital that, for millennia, have shaped the lifestyles and cultures of myriad human communities around the world. Today, for 1.3 billion people, livestock are essential in enabling the effective use of natural resources for secure and sustainable livelihoods, contributing to food and nutrition security for both rural and urban people (FAO, 2006; Haddigan, 2009). About 70 percent of the 880 million rural poor people living

on less than one US dollar a day are at least partially dependent on livestock for their livelihoods.

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### ■ Resource with a considerable potential

Livestock contributes to household finances in many ways, as it can be a primary source of saving, income, credit, insurance, loan, gifts and

◀ Although livestock contribute to household income in many ways, the livestock sector is often overlooked when it comes to development cooperation.

investments. Experience attests that poor households often reinvest remittance resources in livestock and they can be used as collateral for financial services. Income generated through livestock-related activities improves educational levels among poor groups and participation of women in household decision-making processes (IFAD, DANIDA, World Bank, 2004). Processing of animal-based products (milk, meat, hides, and wool) creates off-farm jobs. For each 100 litres of milk sold, an additional one to five jobs are created (FAO, 2003; Haddigan, 2009).

Furthermore, livestock keeping implies sophisticated knowledge and skills, often shared across gender, social class, generations and cultures. For 200 million pastoralists, it represents the vital 'technology' that allows production of valuable products on land where people cannot produce crops. Manure is also an essential element for maintaining soil fertility in Mixed Crop Livestock Systems (MCLS), the most widespread animal production system in the world. It produces 92 percent of the world's milk supply, 70 percent of sheep and goat meat and 100 percent of buffalo meat (Blackburn, 1998). Livestock can store and transfer food from one season to another, thus buffering critical seasonal food gaps, and, as a form of transport, it enables pastoral mobility and trade patterns. Animal traction is a relevant factor for 50 percent of poor agro-pastoral and farming smallholders. Traditionally, livestock help generate social capital by providing employment, wealth, prestige, identity, respect and connectivity within and outside the community. Exchange of animals among households or groups create exclusive

ties, which are relevant for risk minimisation, conflict resolution and business relationships.

### ■ The neglected sector

Despite the above, the livestock sector is often overlooked when it comes to development cooperation and allocation of resources. Efforts by both international donors and developing countries to develop livestock

production during the 1970s and early 1980s were largely focused on projects for introducing new production technologies with a focus on breed development and animal health interventions. The impact of those projects on poverty reduction and livelihood development was limited as livestock development professionals and governments were biased towards large animals and their owners, who are typically not among the poorest (IFAD, DANIDA, World Bank, 2004). Among

### “Integrated Dairy Schemes” (IDS) in Afghanistan

Developing the dairy sector is always a challenge but even more so in a difficult environment such as war-torn Afghanistan. Here both consumers and producers requested FAO to start dairy development activities which began with an integrated approach in 1998.

The integrated approach covered the whole value chain and included the development of feed and fodder resources, advice for improved husbandry and animal health, establishment of centres for milk collection, for processing and for marketing of products and the creation of regional milk unions that represent 4,000 farmers in Kabul, Mazar-i-Sharif and Kunduz.

Among the achievements of the schemes are:

- Milk production per animal has more than doubled, allowing for more milk for sale and consumption.
- The participating farmers have increased their annual income from dairy production from USD 160 to USD 540.
- Women, who receive over 90 percent of income earned from dairy, are the main beneficiaries.
- The gradual but progressive approach to dairy development has been recognised as successful by independent partners and agencies and has formed the basis for future dairy development by other agencies in Afghanistan.

*Developing the dairy sector in an integrated approach has proved to be very successful and a real option for the farmers.*

Photo: O. Thieme





Photo: J. Boethling

*Animal based products – especially red meat – are often associated with diet disorders linked to heart diseases and cancer.*

The rapid growth and transformation of the livestock sector in large parts of the world supported by mostly private-based technological progress, research and development, with a clear focus on large-scale producers, was termed the “Livestock Revolution”. While this has generated important achievements, such as improvements in incomes and diet for many, it also brought adverse consequences. These were

the few success stories funded by the public sector were dairy development in South Asia and the eradication of Rinderpest.

However, failure of many of the projects and the policies of disengagement of the public sector from livestock development with a reduction or abolishment of extension and veterinary services during the following decades brought an end to many of these development concepts. The share of

official development assistance (ODA) devoted to the entire agricultural sector dropped from 12 to 15 percent in the 1970’s to about 2.5 percent in 2000, with a slight increase to 4 percent in 2004 (World Bank, 2009). Investments and development in livestock production were considered the role of the private sector, which indeed responded to the increased demand from a growing urban population by developing landless industrial production systems in particular for poultry and pigs.

a widening polarisation in the sector between increasingly large-scale commercially oriented production units and small-scale traditional, often subsistence-based production systems and a significant under-provision of a number of public goods related to livestock production, including improved nutrition and public health, and sustainable management of natural resources. The Livestock Revolution has largely by-passed the poor producers, and many countries have barely been affected by it. Fast (and in many countries largely unregulated) growth of industrial livestock production has caused environmental damage and increased risk from zoonotic diseases like highly pathogenic avian influenza (HPAI) and bovine spongiform encephalopathy (BSE) or “mad cow disease” (World Bank, 2009).

### From the “L’Aquila” Joint Statement on Global Food Security

*... The combined effect of longstanding underinvestment in agriculture and food security, price trends and the economic crisis have led to increased hunger and poverty in developing countries, plunging more than a further 100 million people into extreme poverty and jeopardising the progress achieved so far in meeting the Millennium Development Goals ... We are committed to increase investments in short, medium and long term agriculture development that directly benefits the poorest and makes best use of international institutions... National and regional strategies should promote the participation of farmers, especially smallholders and women, into community, domestic, regional and international markets... Building on the experience of FAO, IFAD and other Agencies, special focus must be devoted to smallholder and women farmers and their access to land, financial services, including microfinance and markets. Sustained efforts and investments are necessary for enhancing agricultural productivity and for livestock and fisheries development ...*

The Joint Statement on Global Food Security is endorsed by the G8, several other countries, international institutions and initiatives.

### ■ Livestock in the pillory

Furthermore, livestock production is often made the “scapegoat” for a wide range of global issues which cause concern in the public opinion and therefore

influence decision-makers and global donors' funding (Haddigan, 2009). Livestock has been held responsible for producing 18 percent of global greenhouse gas emissions (GHGs), more than the contribution of the transport sector (FAO, 2006). It has been blamed for being a major cause of soil erosion, deforestation, desertification and water pollution. In several instances it has been blamed for causing public health hazards through disease outbreaks not directly related to livestock production which captured global media attention like SARS, and A1H1N1 influenza or "swine flu" (World Bank, 2009).

Animal-based products (red meat, eggs, and dairy products) are often associated with diet disorders (high cholesterolemia and obesity) linked to heart diseases and cancer. Images of domestic animals mistreated during their transport, or raised in narrow cages or cubicles, and aberrant slaughtering practices are rather common in mass-media. This panoply of global disasters is certainly not imputable to "livestock" per se, but rather to the lack of regulation and policies, illegal acts and unsustainable development of intensive livestock production systems.

### ■ No silver bullet available

While reducing consumption of animal products and cutting public subsidies to the livestock indus-

try could be part of a possible solution in developed countries, this is clearly not an option for developing countries, which require alternative remedies. It can be expected that "population growth, urbanisation, and most importantly, increasing income" will continue contributing to the fast growing demand for livestock products, especially in countries such as Brazil, Russia, India and China (BRIC) (Ficarelli, 2009). Access to the fast-growing and more sophisticated markets for meat and milk products is dependent on higher quality and stricter safety standards, greater uniformity of the product, stricter reliability of supply, and verifiability of origin.

There is a significant risk that this form of livestock sector development will exclude smallholders. Support for arranging collective action of small producers considering all aspects of the value chain is therefore required to give them a chance to participate in the future markets for livestock products. Examples show that even under difficult conditions like in Afghanistan, this approach has good chances of success (see Box on page 9).

### ■ What needs to be done?

Developing countries at large can benefit from a wide array of dedicated initiatives. First and foremost, interna-

tional funding from food security programmes should increase, as it is recognised that livestock can be a viable way out of poverty, as well as a balanced nutritional source. Pastoralists, agropastoralists and smallholder producers provided with insight on how to better manage their resources will then be empowered towards improving the quality of their livestock production and consequently reducing their vulnerability. Access to technologies and knowledge sharing would also widen poor people's capacity in accessing financial services and markets, where available.

Finally, livestock can be linked to environmental management, supporting pastoralist animal keepers to preserve the biodiversity of the environment where they live. As shown by the recent "L'Aquila" Joint Statement on Global Food Security" (see Box on page 10), there is wide recognition today of the need for increased investments into the agriculture and livestock sectors with specific interventions to ensure that the small producers are not excluded (L'Aquila Food Security Initiative). It is now time to translate this general agreement into practical action.

Sources for more information can be found at:  
[www.rural21.com](http://www.rural21.com)

### Zusammenfassung

In Entwicklungsländern entfällt mehr als ein Drittel des landwirtschaftlichen Bruttoinlandsprodukts auf die Tierhaltung; das schnelle Wachstum und die Veränderungen des Sektors in großen Teilen der Welt haben die Einkommens- und Ernährungssituation vieler Menschen verbessert. Allerdings ging diese „Livestock Revolution“ an den armen Erzeugern weitestgehend vorbei; außerdem hat sie das Zoonose-Risiko erhöht und zu Umweltschäden geführt. Bevölkerungswachstum, Urbanisierung und höhere Einkommen werden die Nachfrage nach tierischen Produkten in den Entwicklungsländern mit großer Wahrscheinlichkeit wei-

ter steigern. Heute besteht weitestgehend Konsens darüber, dass für ein nachhaltiges Wachstum höhere staatliche Investitionen in Landwirtschaft und Tierhaltung nötig sind; zielgerichtete Maßnahmen müssen dafür sorgen, dass dabei die Kleinbauern nicht außen vor bleiben.

### Resumen

En los países en desarrollo, el subsector ganadero representa más de un tercio del producto interno bruto agrícola, y el rápido crecimiento y la transformación de la ganadería en gran parte del mundo ha traído consigo mejoras en los ingresos y la dieta de muchas personas. Pero esta "revolu-

ción ganadera" también ha dejado de lado a gran parte de los productores pobres, ha incrementado el riesgo de enfermedades zoonóticas y ha causado estragos ambientales. Es de esperar que el crecimiento poblacional, la urbanización y el aumento de los ingresos sigan impulsando el auge de la demanda de productos ganaderos en los países en desarrollo. A fin de lograr un crecimiento sostenible, en la actualidad se reconoce ampliamente que es necesario incrementar las inversiones públicas en los sectores agrícola y ganadero a través de intervenciones específicas dirigidas a asegurar que los pequeños productores no terminen siendo excluidos.