les dossiers
d'AGROPOLIS INTERNATIONAL

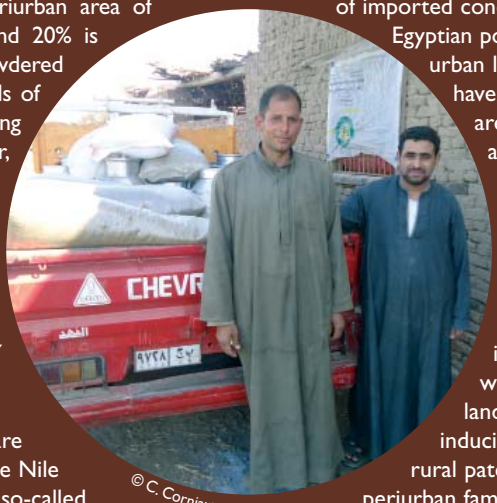
Expertise of the scientific community in the Languedoc-Roussillon region (France)

Family farming

Number 19

Smallholders supply buffalo milk to the periurban area of Cairo

Two sectors supply milk to the periurban area of Cairo (20 million inhabitants). Around 20% is from industrial sources (imported powdered milk) and large-scale farms with herds of 100 to over 1 000 cattle. The remaining 80% is from the informal milk sector, which the industrial sector refers to as 'loose milk'. The unique aspect of this informal sector is that it mainly supplies buffalo milk. CIRAD (UMR SELMET) and its Egyptian partners are currently conducting research on this informal sector in the DAIRY project* (2012-2014).



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Family farms in this informal sector are mainly located around Cairo or in the Nile Delta and Valley. In addition to these so-called traditional farms upon which the number of dairy animals managed depends on the size of land—on average 0.25-0.5 acres/animal—there are landless family farms which are heavily market-dependent. These mainly urban units are highly vulnerable because of the unstable sociopolitical situation and high urban growth. They bear the brunt of the increasing prices of imported concentrates due to the devaluation of the Egyptian pound and the strong speculative pressure on urban land. Over the last 2-3 years, many farmers have left for peripheral areas or newly developed areas in the desert, or they have simply abandoned farming.

Urban sprawl is one of the key drivers of change in the functioning of livestock production systems around Cairo and the Nile Delta. Since the Revolution, over 20 000 ha/year of farmland north of Cairo is taken over for urban development. The weakness of public authorities in managing land regulations has boosted speculation, thus inducing irreversible changes in these remaining rural patches in urban areas. Moreover, constraints on periurban family farms are increasing in terms of managing livestock in urban areas (vertical installations, pollution, logistics for inputs and products).

Véronique Alary, veronique.alary@cirad.fr

*The Understanding the Traditional Milk Supply Chain Functioning in El Cairo City project funded by the AIRD 'Young Team' (2012-2013).

▲ *Milk collection and livestock feed distribution in the periurban area of Cairo.*

For productive environment-friendly livestock farming in hot regions

The joint research unit *Mediterranean and Tropical Livestock Systems* (UMR SELMET, CIRAD/INRA/Montpellier SupAgro) focuses on livestock agoecosystems in favourable or harsh hot region environments. Due to the extreme constraints, these systems question the suitability of ecological intensification forms and methods.

Other teams focused on this topic

UPR AGIRs
Animal and Integrated Risk Management
(CIRAD)
27 scientists

UPR B&SEF
Goods and Services of Tropical Forest Ecosystems
(CIRAD)
45 scientists

UPR GREEN
Management of Renewable Resources and Environment
(CIRAD)
20 scientists

Livestock production is a major component of the agricultural sector and the economy of many countries. In all categories, there are 19 billion livestock animals in the world, 70% of which are reared by farmers in countries that are not members of the Organisation for Economic Co-operation and Development.

Livestock farming mobilizes around 4 billion ha of grassland, 3.4 billon of which are generally devoted to pastoralism and family farming. It produces a third of all proteins consumed by humans and represents 40% of the gross value of world agricultural production. In developing countries, livestock contributes to the subsistence of 800 million poor people, with 1.3 billion people working in this sector worldwide. Livestock activities are, however, severely affected by global changes. Climate change and trade globalization have an impact on human and animal migration, while increasing pressure on resources. Livestock farming is also highly in question regarding the alleged or actual negative impacts on the environment and human health: water pollution, greenhouse gas emission, biodiversity and health crises. The challenges for livestock farming systems to address are thus to reduce their negative impacts while demonstrating their ability to produce services (traction, manure, animal products such as meat, milk, eggs, leather, wool, etc.) and income for millions of farmers and their families who depend on them.

UMR SELMET aims to support these changes in order to promote more productive and environment-friendly farming systems. The unit carries out research in three key areas: livestock farming dynamics, animal-environment interactions, and alternative management strategies to adopt to cope with potential changes. This research is conducted with partner teams in Sub-Saharan Africa, the Mediterranean Basin, Indian Ocean, Southeast Asia and Latin America. Most of the projects involve partnerships with French and European research institutes and universities, and with other international research centres. •••