

# Indiamilk

# Indian dairy ABSYSs facing local and global challenges

## ABSTRACT

The general objective of the project is to understand the undergoing transformation of Indian dairy systems and to assess to which extent it represents a sustainable development model, able to address jointly food security, poverty reduction and environmental issues.

The transformation of Indian dairy farming involves several processes, socio-economical and agroecological in nature and operating at different scales. The project aims to create in-depth knowledge on these processes and to articulate them for providing a relevant global picture.

More specifically, the project intends to come up with answers to the following questions: (i) Who are the Indian dairy farmers? What are their livestock practices? How do they feed their animals? What are their relations with other farms and non-farm employment? How does milk contribute to household food security? Which share of the milk is marketed and through which value chains? How do the local land tenures and agrarian relations, as well as the biophysical and technical environment, structure the diversity of dairy systems within the country?

(ii) What are the extent and consequences of the decline in multifunctional livestock for the ecosystems? How do the intensification of livestock practices and the concentration of dairy farms in some areas affect their soil and water resources? At a more global level, what are the impacts of the dairy farming development in terms of fossil resources consumption and greenhouse gas emissions?

(iii) What conditions are required for the rural poor to really benefit from the dairy market opportunities? Are private investments in the dairy sector and the emergence of Producers' companies favourable to smallholders or does it lead to their exclusion? What are the private, collective and public levers of action to facilitate their access to extending and modernising markets?

(iv) How does dairy farming fit into the more global biophysical and economic development path of the Indian subcontinent? To which extent is it shaped by political choices regulating other issues such as food security in crop products, employment or trade? What is its sustainability in this context? Is the recycling based and pro-poor development meant to be only transitory?

The project also has methodological purposes. The project combines different analytical frameworks. Improving these frameworks by applying them jointly to the Indian case and by placing livestock activities at the core of the analysis is part of the objectives of the project. Moreover, questions arise at the articulation of these frameworks: does the agrarian system analysis help in addressing more effectively the place of livestock farming in an ecosystem? Similarly, how does the analysis of market functioning in terms of competition regime and of the national economy in terms of socio-industrial metabolism contribute to a better understanding of agrarian systems at regional and national scales?

#### Keywords : 1. Exclu de la photothèque

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Project leader : Claire Aubron Project leader's institution : InstitutAgro Project leader's RU : SELMET



#### Budget allocated : 140000 € Total budget allocated ( including co-financing) : 140000 € Funding : Labex

#### GOAL

To achieve this objective, we propose an original multidisciplinary, multi-scalar and long-term perspective approach, drawing together several sources of data coming from national statistics and surveys as well as interviews carried out during long and meticulous fieldwork.

We combine two specific conceptual frameworks – agrarian system (WP1) and market functioning institutional analyses (WP3) – with two sets of methods for environmental impact assessment (WP2) and national biophysical accounting (WP4).

We consider five interlocked scales of analysis, using a clear concept for each of them and putting the "local" at the core of the research, where the coevolution between ecosystems, farming practices and market insertion can be characterised.

### ACTION

WP1: Differentiation of Indian dairy farms : WP1 focuses on the changing place of livestock farming in farmers' communities and aims at highlighting the differentiation process of dairy systems during the last six decades, in technical and socio-economical terms.

WP2: Impact of livestock farming on local and global ecosystems

WP3: Dairy producers' access to markets: WP3 focuses on the private, collective and public levers to create inclusive and stable conditions for farmers to access markets and aims at shedding light on the way the transformation of the supply chains in their diversity (informal, cooperative or private, including the diversity of each type) has impacted farmers' production models in the last 60 years. The structuring role of the cooperative movement in supporting the pro-poor development of the dairy sector will be questioned as well

WP4: Indian dairy and metabolic transformation of the Indian economy: The ambition of WP4 is to assess the growing importance of the Indian dairy sector within the bio-economic metabolic regime of India, in order to better identify the specificities and challenges of the Indian structural transformation from an agrarian to an industrial society