

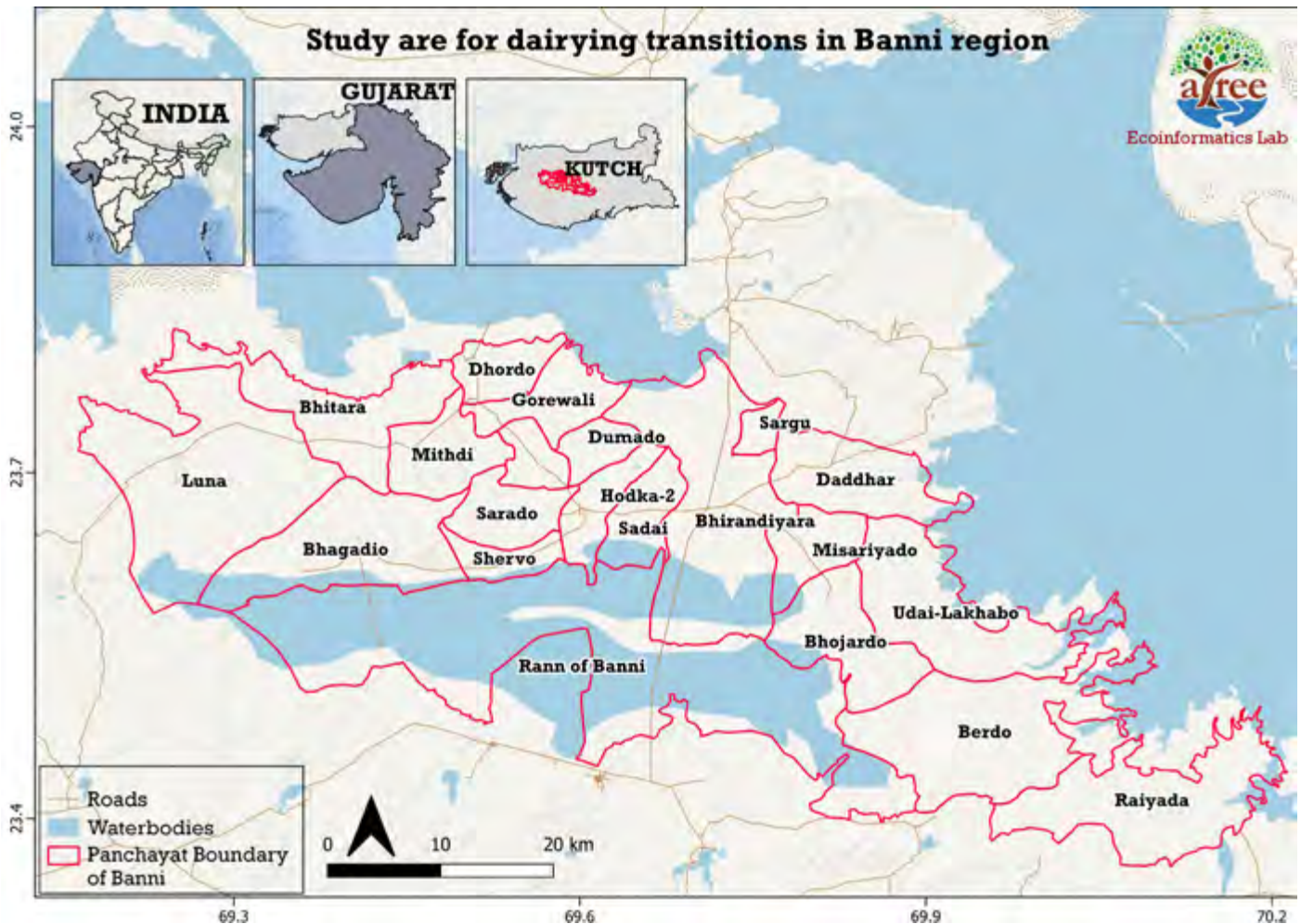
Commercial Dairying in Pastoral Landscapes



Policy brief | 2022



Banni Region Map - Kachchh District



Executive Summary

Dairy intensification in pastoral landscapes can have unintended consequences on the environment and the health of the producer communities. We studied this phenomenon among the Maldhari communities of the Banni grasslands of Kutch, Gujarat. We find that the commercial value of milk and urbanising lifestyles have reduced dairy intake, and replaced it with non-dairy, at times, less nutritious foods. Dairy intensification has also led to greater dependence on dairy-related income, fodder procurement (as opposed to grazing), and gendered income imbalances.

In this brief, we focus on the nutrition and health aspect of dairy intensification, and suggest the following measures to address concerns of malnourishment and lifestyle-related diseases:

1. Encourage dairy nutrition awareness and education.
2. Make dairy products accessible by providing consistent fresh supply.
3. Invest in innovative dairy products and supply chains to improve longevity and choice.

We also provide examples of institutions, policies, and programmes that can help achieve these goals.

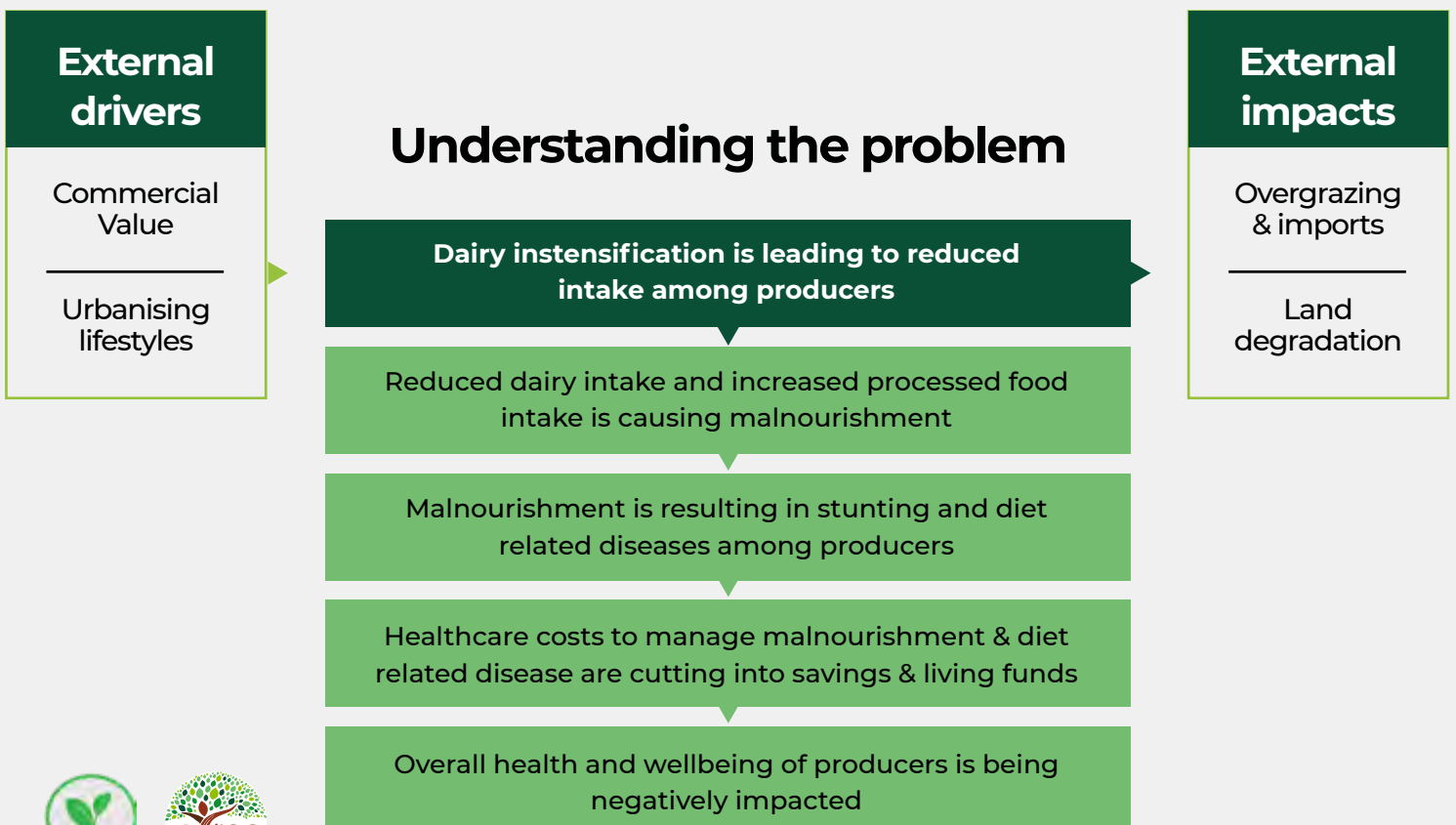
What is the Problem



The Banni grasslands, in the Kutch District of Gujarat are spread across 2500 square km. They are host to about 40 grass species as well as ass, buffalo, camel, cow, goat, horse, and sheep. Notable breeds from the region include the Kharai camel, Kachchhi camel, the Banni buffalo, and Kankrej cow.

The region is home to about 40,000 people of 22 ethnic groups, such as the buffalo Maldhari, Fakirani Jat, Marwada, Rabari, Wada Koli, etc., who reside in 48 hamlets in Banni. For generations, the Maldharis have husbanded indigenous livestock in these grasslands and **shared a close relationship** with their animals and the land on which their animals graze. This livelihood has coexisted in its traditional form with light grazing.

Recently, with the expansion of the dairy industry, this lifestyle and relationship has changed. The Maldharis no longer consume as much milk as before, likely due to increased incomes, changing diets, and urbanising lifestyles, brought about by dairy commercialisation. They now also own much larger herds and produce and sell much more milk, **thereby putting pressure on the delicate wild grassland ecosystem**. This has implications for the health of both the communities and the grasslands.



The Research

Introduction

The Banni region in Kachchh district, Gujarat, India has seen substantial dairy intensification over the last two decades as a result of establishment of a robust cold storage and supply chain, leading to livelihood changes. Other factors for changes in food systems are rainfall patterns, access to water for irrigation, entry of cash crops, access to medical professionals and healthcare services, and access to private urbanised or globalised markets as consumers. This shift from animal husbandry to dairy farming could be a major socioeconomic driver of changes in diet in traditionally pastoralist (milk) producer communities, possibly with consequences for their nutrition and health.

Methods

Between June 2019 and June 2021, a researcher conducted semi-structured interviews as well as focus group discussions and participant observations with the cattle Maldhari across 10 villages and 244 households in Banni. The researcher also participated in dairying activities and other daily chores of these households. The aim was to ascertain changes in household diet, nutrition, health, and lifestyles owing to changes in livelihoods over the course of the last 20 years to study the differences before and after dairy intensification in the region.

Findings

Households interviewed confirmed that after dairy intensification, dairy was the primary income source for 146 of 244 households compared to only 40 households before dairy intensification. Dependence on dairy for income has risen within the communities. However, increased income from dairy does not correlate with improved dietary diversity or dietary quality.

Buttermilk has been a cultural symbol of commons within the Maldhari communities. Earlier, buttermilk and/or milk used to be offered to guests. After dairy intensification, however, the quantity of milk kept for making buttermilk has substantially reduced. Earlier, buttermilk and/or milk used to be offered to guests. Tea has replaced milk and buttermilk, with children as young as 2 years of age consuming tea.

Commercialisation of dairy has led to a shift in gendered income dynamics. Men handle dairy-related interactions and receive dairy-related payments. Payment for handicrafts, however, is made directly in cash to women.

Household milk sales have risen from before intensification (26kg, 22%) to almost double after intensification (46kg, 47%).



What can be done?

Increasing accessibility and awareness of milk and other dairy products can help improve their consumption in diets. Awareness can be increased by broadcasting information on dairy nutrition through local public health centres, nutrition programmes, and communication media. It may also be of help to involve local dairy farmers, dairy boards, dairy cooperatives, and dairy companies in awareness of dairy-inclusive healthy diets.

Accessibility can be improved by encouraging domestic consumption for milk producer households, and by including milk and milk products in existing food and nutrition schemes run by the government. Domestic consumption quotas can be prescribed by dairy cooperatives and dairy companies. Existing schemes such as midday meals, Anganwadi services, and ASHA activities could be channels to ensure adequate administration of milk and milk products.

Innovation in dairy products and supply chains can also increase accessibility to milk and milk products, such as, cheese, paneer, curd, and buttermilk, by increasing longevity, diversity, and appeal for consumers, thereby improving dietary intake.



Solving the problem



Invest in innovative dairy products

Make dairy products more long-lasting, accessible, and appealing to producers.

Develop human and supply chain capacity to produce cheese, buttermilk, etc. gathering, thereby undermining integrated agroecological farming of local resilient foods

Related SDGs



Provide fresh dairy product supply

Add local milk to midday meals, women and children nutrition programmes, and public distribution shops.

Involve cooperatives and corporations to create domestic consumption quota for producer households.



Encourage dairy awareness & intake

Broadcast information on dairy nutrition through local public clinics, nutrition programmes, and communication media.

Involve local farmers, dairy boards, cooperatives, and companies in awareness and education on dairy nutrition.



How?



Support

Public awareness by:

- Dairy cooperatives
- The National Dairy Development Board (NDDB)
- The FSSAI's (Safe & Nutritious Food, Eat Right India "Diet4Life") initiatives
- The Ministry of Information and Broadcasting.

Farmer awareness by:

- Through outreach initiatives for dairy producers by:
- Ministry of Fishing, Animal Husbandry, and Dairying
 - National Livestock Mission.

Nutrition education

Nutrition education on dairy nutrition by:

- Ministry of Health and Family Welfare (National Nutrition Week)
- Accredited Social Health Activists (ASHA)
- Anganwadi Workers (AWW).

Public engagement

Public engagement through Gram Panchayats' Poshan Maah (Nutrition Month) activities.



Investment

Through the **Ministry of Food Processing Industry's**

Cold Chain, Value Addition & Preservation Infrastructure

Creation/ Expansion of Food Processing/ Preservation Capacities

Creation of Backward & Forward Linkages Schemes

Dairy companies' **Corporate Social Responsibility** schemes.



Distribution

Through the **FSSAI's Food Fortification initiative**

The Ministry of Women & Children Development's Integrated Child Development Scheme (**ICDS**)

Doodh Sanjeevani Yojana, Poshan Abhiyaan (**National Nutrition Mission**)

The Ministry of Human Resources Development's **Midday Meals**

The Ministry of Consumer Affairs, Food, and Public Distribution's **Public Distribution System**.