Dairy Asia

Asian Milk for Health and Prosperity

Experiences on country level presented by:

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Dairy Asia
for health and prosperity

Food and Agriculture Organization of the United Nations

Global Agenda for Sustainable Livestock

Overview

1. Dairy Sector in Asia

2. Country case from India

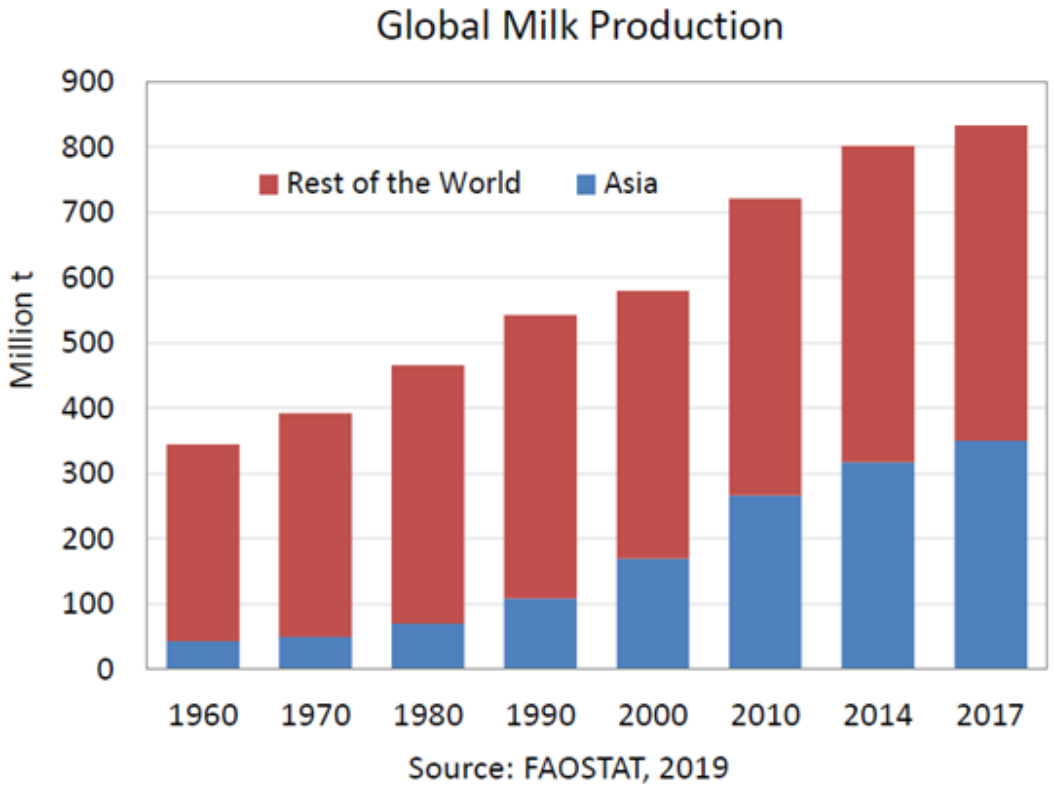
3. Country case from Mongolia

4. Way forward

Q & A

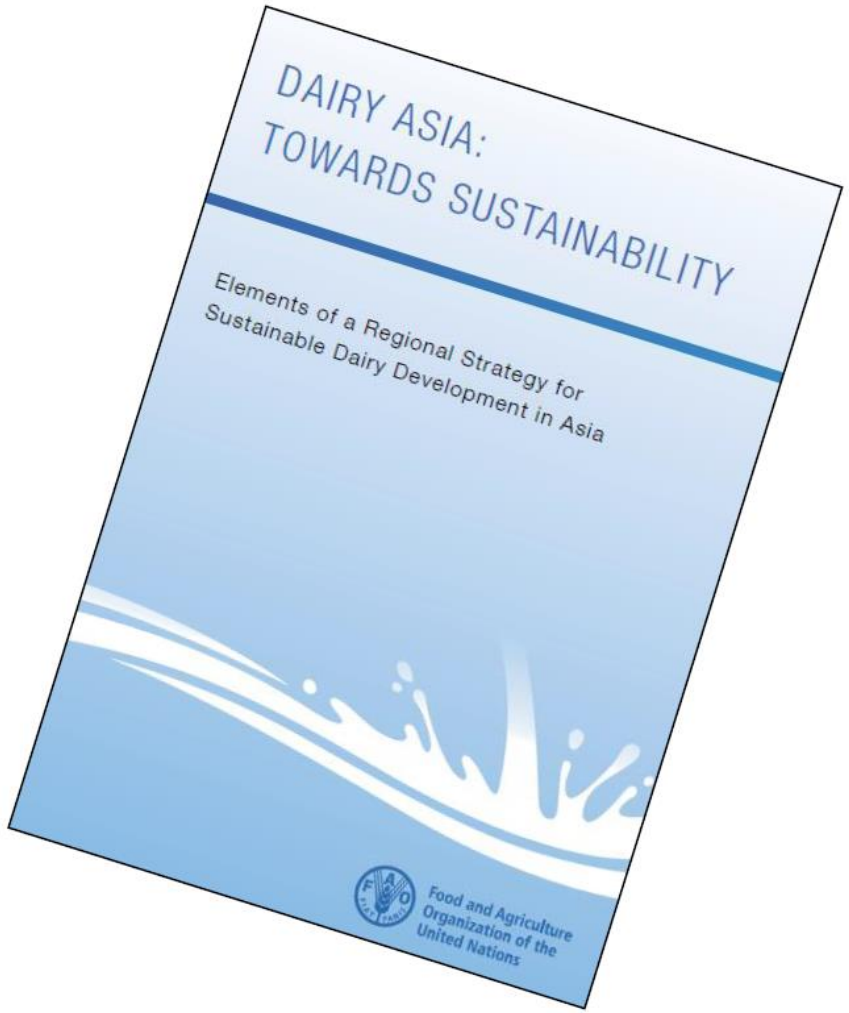
1. Dairy Sector in Asia - large, growing and dynamic

- Dairy is the third most economically important agricultural commodity in Asia
- Asia produced about 342 million t of milk in 2017, accounting for 41% of total global milk production (827 million t in 2017)
- Milk production in Asia is growing at more than twice the global rate of production (4.5% p.a. in Asia compared to 1.5% p.a. rest of world)
- Net import of 28 million tones of milk equivalent in 2015 in Asia at the cost of US$ 18 billion



1. Dairy Sector in Asia – Dairy Asia partnership

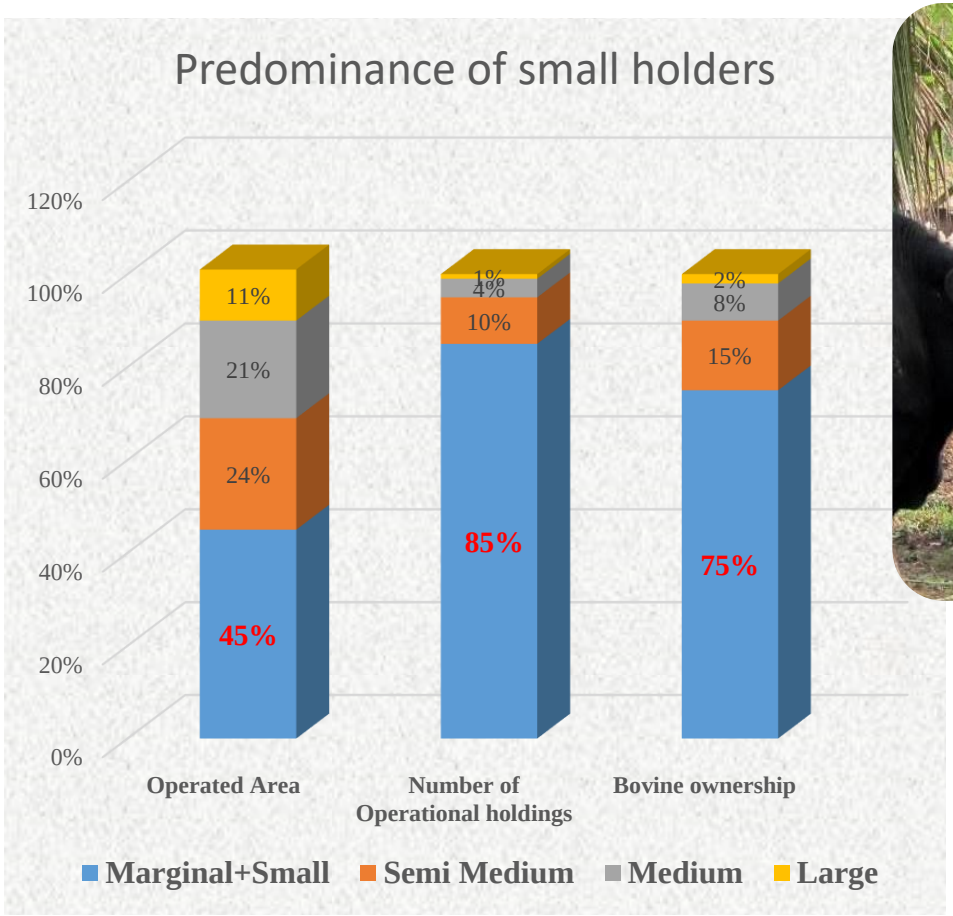
- Dairy Asia Partnership was founded in 2014 by initiation of FAO, UN
- Voluntary multi-stakeholder partnership of 13 countries committed to building a sustainable dairy sector in Asia and the Pacific region
- Our vision: A socially and environmentally responsible Asian Dairy Sector that enhances rural livelihoods, improves nutrition, and contributes to economic prosperity.

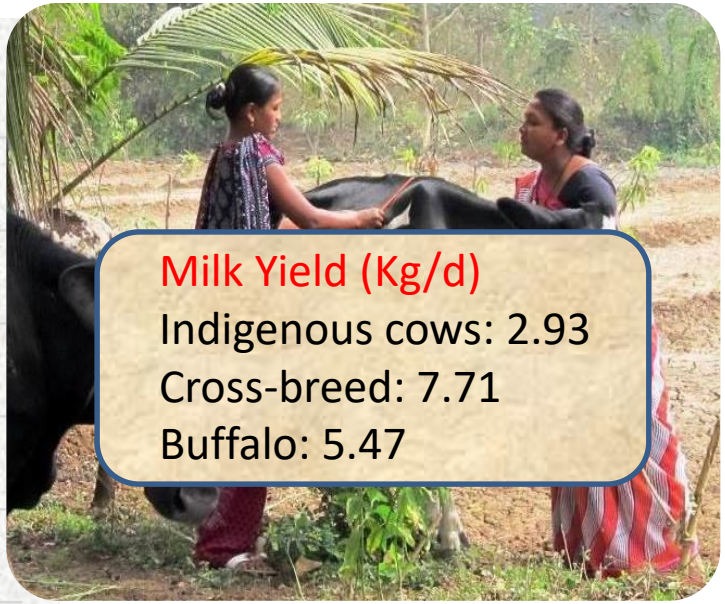


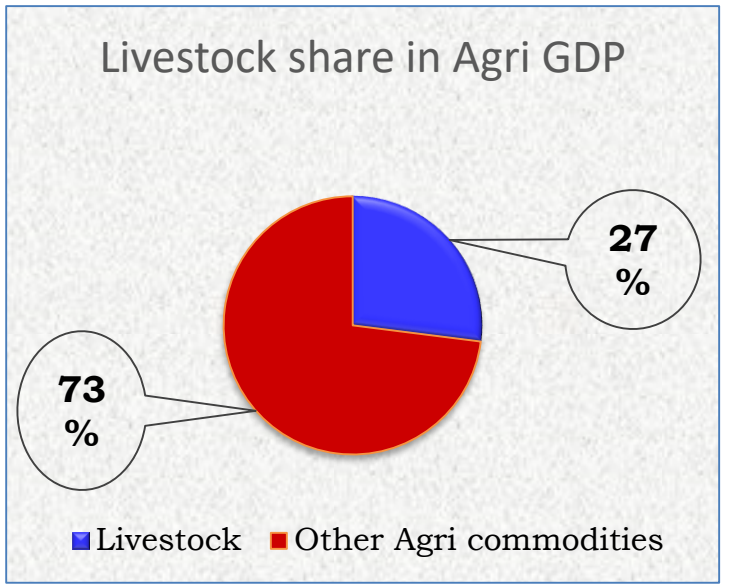
2. COUNTRY CASE FROM INDIA

The National Dairy Plan Phase 1 (NDP 1) as a central scheme implemented by the Indian National Dairy Development Board (NDDB)

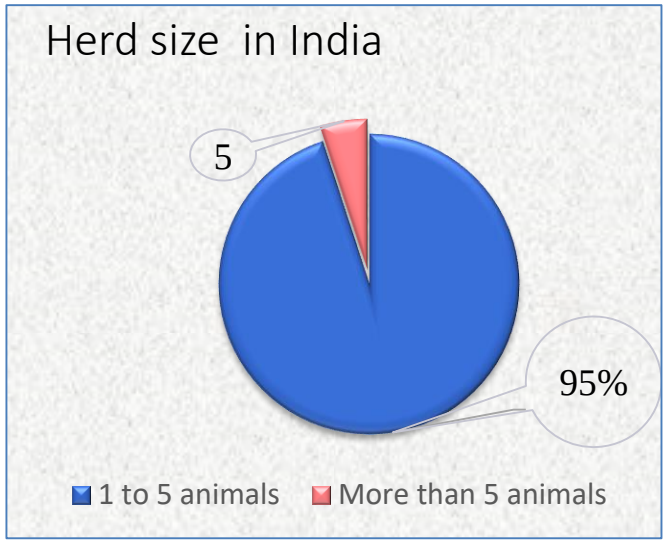
Dairying in India is about livelihood, nutrition and socio-economic empowerment of women - not just a business

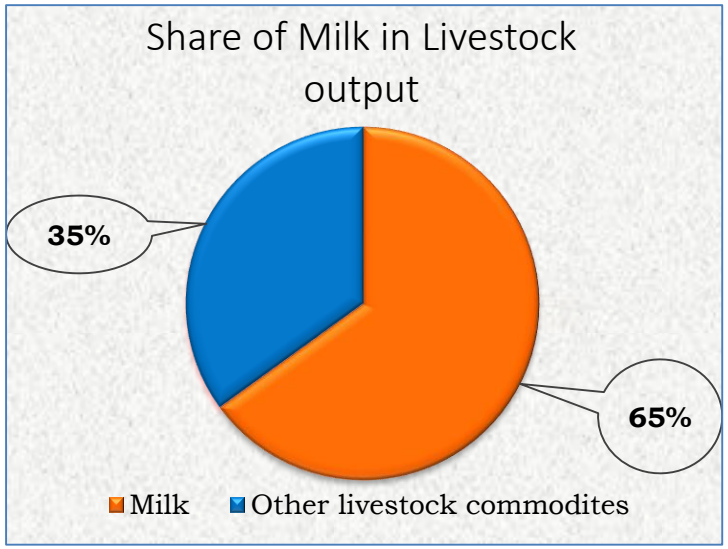






Bovine ownership is more equitable than land holding





Why a National Dairy Plan (2011/12 to 2018/19) ?

India produced about 105 million tons of milk in 2007/08

With an average incremental addition of about 3 million tons per annum in the last 15 years

Demand for milk was/is growing fast

Driven by rising incomes due to high GDP growth, increase in population, urbanization and export opportunities

Milk demand was projected to be 200-210 million tons by 2021/22

Requiring an average incremental addition of 6+ million tons per annum over the next 15 years (beginning 2008-2009)

Meeting projected demand from domestic sources requires a focused national initiative

→ The National Dairy Plan

NDP 1 (2011/12 to 2018/19) – Key activities

National Dairy Plan 1

Twin Objectives

- Raise bovine productivity by scientific approach to animal breeding and nutrition
- Increase market access for milk producers by creating new institutions

NDP 1- Impact in project areas

- Milch animal productivity increased by about 1.06 litre, Cost of feeding in case of cows reduced by 18-19%.
- Mitigation of livestock methane emissions by around 14% in lactating cows and 11% in buffaloes.
- Creation/Strengthening of 46000 new institutional structures covering 1.57 million milk producers using technology.
  - **Fair & transparent transactions/trust building**
  - **Improvement in raw milk quality**
  - **Improved governance of collectives**
  - **Participation of women increased up to 50%**

2. Beyond NDP 1 - Way Forward

- The benefits of the genetic improvement went beyond the project's herd up to the national dairy herd since -high genetic merit bulls and quality disease free semen will be available to the entire country.
- Merely increasing productivity is not enough. Milk producers must be supported with avenues for remunerative sale of milk, which requires continued investment in milk collection systems/development of products/processes and linking with markets.
- Phase 2 of NDP will consider the above aspects and further consolidate the gains made in NDP 1.
- Ms. Tsetsgee from Mongolia has been part of a long standing collaboration between dairy professionals in India and Mongolia. She procured dairy equipment from India and applied it in a Mongolia context to create a niche market for Yak Cheese.

India-Mongolia cooperation in dairy sub-sector

- MoUs between Govt. of India & Institute of Technology set up during the state visit of Prime Minister Narendra Modi to Mongolia in 2015
- Exchange of professionals, collaboration between private companies
- Import of milk cans, separators, cooling tanks, small scale dairy processing equipment, started in 2006

Indian delegation
Embassy of India to Ulaanbaatar, April 2015

3. *COUNTRY CASE FROM MONGOLIA*

Development of a Yak cheese value-chain business model in Bayankhongor province of Mongolia

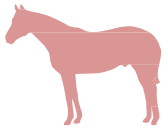
Development of a Yak cheese value-chain business model in Bayankhongor province of Mongolia

I. Intensive & Semi-intensive dairy farming (15%)

- Close to central located and urban areas
- About 75 thousand dairy cattle in 1900 farms
- Annual yield per cow 1800-2000 liters
- Milk production: 90-100 million litres

II. Pastoral Husbandry system (85%)

- 160 thousand herder households are owners of almost 66 millior heads of livestock
- Seasonal production, low yield, long distance


3.9 mln-5.9%

0.7 mln-0.7%

4.0 mln-6.6%

30.1 mln-45.5%

27.3 mln-41.3%

Yaks: 0.8 million, semi-wild animals living in mountainous area

Improvement of milk procurement system

-Working with herders

- Indian cans, milk filters
- Quality milk collection
-Training

Real investment in rural area

- Rehabilitation & converting of abandoned building

Milk processing

Small scale hygienic dairy equipment

Technology adaptation with yak milk

Cheese storage

-2000-2500 m above sea level

-Right humidity & temperature for cheese ripening

-Salting, Washing, turning-new way of cheese preserving

Key results from Yak cheese production (value chain) in remote rural area

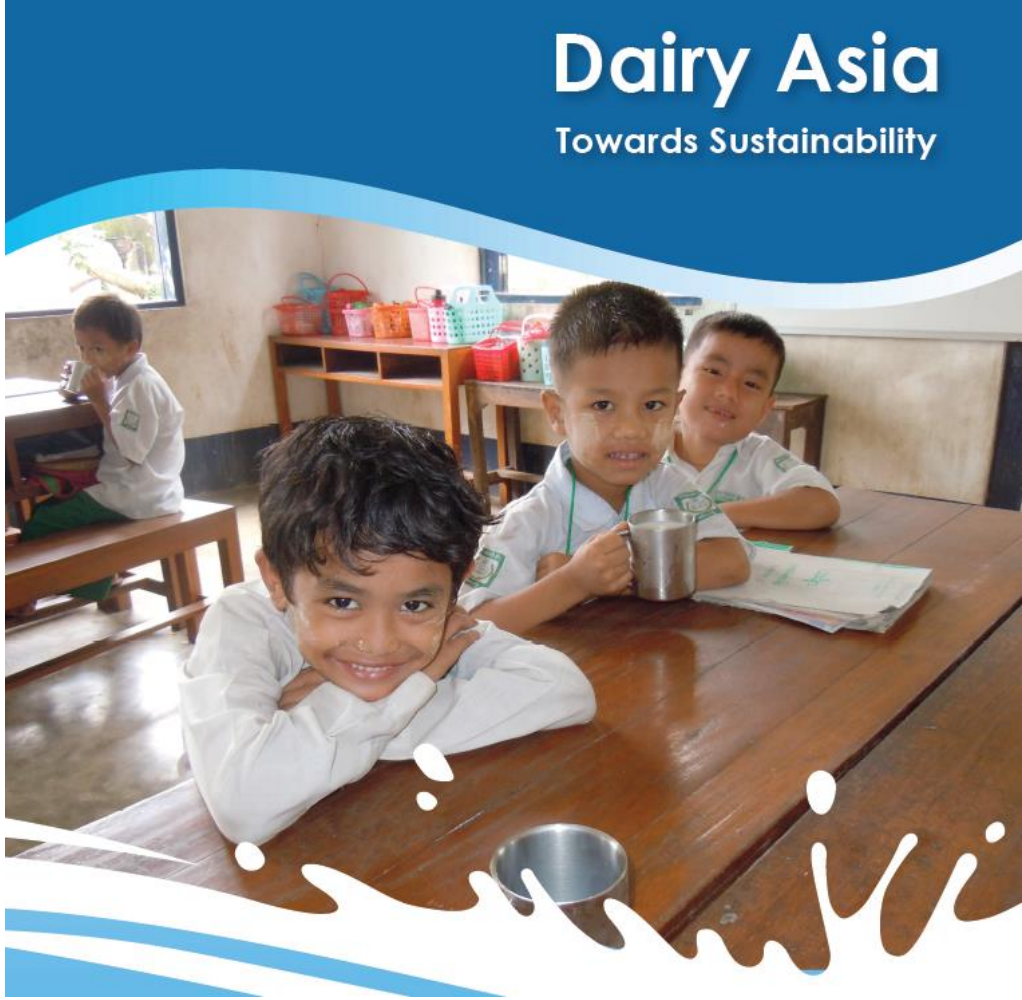
Reliable source of income for herders → Creation of new jobs for young people → High valued end niche product for urban market; Import substitute and Export potentials; Possibility for dissemination and duplication

4. Way forward

Both initiatives can serve as valuable models for Asian countries. They have shown how to:

- **Increase productivity** while relying on dominating **small-holder farming** systems and **local resources** (NDP 1) → Critical given the fast-growing demand for animal sourced protein in the region
- Successfully **build trust** among small-holders in collectives by promoting **fair and transparent transactions** using technology→ important given that majority of milk originate from mixed small dairy farms < 10 cows
- Provide **high-quality dairy products** with longer **shelf-life** that can be produced in **remote and mountainous areas** throughout the year → Critical to generate regular income for rural population and minimize seasonal food availability
- **Increase collaboration among local stakeholders** including more **sustainable use of common natural resources** → Resource-efficiency is key since Asia has more than half of the global population but only 1/5 of the world's agricultural land

Thank you



Further questions? Contact us!
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