

“The future of the Indian dairy sector depends on the sustainability of family dairy farms”

Summary paper of the
6th IFCN Regional Workshop
Chennai, 28–29.11. 2017

Organised by:

IFCN Dairy Research Network, Kiel, Germany
T. Hemme, A. Fagerberg, P. Tripathi, A. Saha
Contact: info@ifcndairy.org

Hosted by:



IFCN Regional Workshop 2017 - Summary

1. Introduction

This workshop organized annually since year 2012, brings together the actors of the dairy value chain, as well as representatives of the institutions, government organizations, farmers and experts from research and economic bodies. The **6th IFCN Regional Workshop** concluded on 28-29th of November 2017, in Chennai – Tamil Nadu, India; this two-day workshop was organized by IFCN and hosted by CavinKare, Elanco & Lactalis.

The purpose of the current workshop was to extrapolate the **sustainability of family dairy farms** in India and explore the new solutions for the challenges and the most likely trends that will be faced by the Indian family dairy farmers in the future. More than 60 participants, representing various aspects of the dairy value chain, became part of the discussions and group working sessions.



2. Event evaluation and next steps:

The results of the formal questionnaire can be summarized like this: Overall satisfaction with the event was rated good or very good by 95,5 % of the participants. The same share of participants like to have such an event also in 2018. Some of the quotes from the participants:

IFCN has done an incredible job to organize this workshop which is much relevant for India milk production.

The workshop and its findings help tremendously to understand India dairy farming system and how to improve it.

Thank you: IFCN thanks all participants for their active participation and the open sharing of ideas. A special thank goes to our hosts CavinKare, Elanco and Lactalis which have made this event possible.

Next steps: Please feel free to use the results and this paper for dairy development in India. IFCN is looking forward to seeing you in next year's IFCN Regional Workshop in India.

3. Results of the workshop - key findings:

- 1) **Global dairy:** Global dairy perspective is essential to establish where you are (competitive position) and to decide where you want to be (future complete position).
- 2) **Processors:** Sustainability of processors can only be guaranteed by ensuring the sustainability of the farmers. To realize this, the processors must take a lead in providing need based solutions to the farmers.
- 3) **Farm structure developments:**
 - a) **Farms structural change:** Sustainable family farms will gradually replace the household farms once salaries and off-farm employment opportunity arise.
 - b) **Defining criteria:** for sustainability shall be defined by farmers themselves.
 - c) **Eco-social:** The Eco-social factor for sustainability of family farms will be initially more decisive than environmental factor.
 - d) **Farm dynamics:** For the time being the optimal size of a family farm is deemed to be 10-15 animals.
 - e) **Holistic knowledge:** Will define priorities in adaptation of technologies on the farm.
- 4) **Farm management skills are the bottlenecks for family farm development:**
 - a) **Training** of farmers in skill and management remains a key challenge in India. Government and private actors should together create trainings which are giving farmers a holistic view on their farms.
 - b) **Recording and accounting** are important as you only can improve what you can measure. Start with the progressive and motivated farm families to create examples for the followers.



4. Questions discussed in working groups and selected answers:

The workshop participants have worked in groups on the 8 questions below. The aim was to develop ideas how to solve the issues and also who should take leadership to successfully solve it.

1. **Definition:** How to define a sustainable family dairy farm in India– what criteria's need to be covered?

=> Economical sustainability is the prerequisite before other criteria's can be set.

Leadership: Should be taken by farmers and farmer groups.

2. **Farm management skills:** How to improve it and what needs to be done for substantial progress?

=> Priority on hands on training with continuous follow up of performance is the key.

Leadership: should be taken by progressive dairy farmers and farmer groups/processors supported by universities.

3. **Quality dairy animals:** How to have better animals and better animal availability?

=> Control, certification and information regarding semen suppliers. Improve and take care of cow comfort.

Leadership: Private sectors.

4. **Unproductive cows on family farms:** What can be possible solutions in 2020 besides Goshalas?

=> Alternative use of unproductive animals like exporting or biogas/composting can be options.

Leadership: Industry must take the leadership by asking clear guidelines.

5. **Family farm financing:** What can be done better?

=> Banks and processors to organise package proposals for the farmers.

=> Farmers use assets and future productions as collaterals for future loans for investments and operating capital.

=> Simple insurance process for animals.

Leadership: Government should set guidelines.

6. **Farming model:** How would a sustainable family farming model look like 2020 in progressive states in India like Gujarat? (e.g. no cows, yield, land, feed, technology)

=> Harmonise land, animals and skills in an optimal farm operation.

=> Target 10-15 cows and 4.000 liters in a lactation.

Leadership: Processors

7. **Next generation:** How to attract young people to run family dairy farms in India?

=> Show profitability, use technology & create image by training for skill, use IT and if possible TV.

Leadership: Government back it and processors finance it.

8. **Land/feed and water:** How to insure to have these resources for the dairy farm?

=> Improved agricultural efficiency to attain better yield.

=> Specialized dairy farms can be operated putting land only to dairy farm operations and outsourced feed production for better efficiency.

Leadership: Government and processors.

Summary on prioritizing the questions:

After the workshop session, the participants were asked to rank the questions. Almost 50% of the participants put the highest priority on improvement of skills (question 2) .

Second priority was given to five issues with almost equal rating, that is next generation(Q7), land/feed and water (Q8), quality animals (Q3), unproductive animals (Q4), financing the family farms (Q5).

5. Key recommendations by IFCN regarding farm management skills:

As the issue of farm management skills have been on highest priority this topic shall be explored further. For that IFCN dairy experts have been working on the topic after the workshop. The points below describe specific areas of farm management skills where family farmers have challenges and what potential solutions can be.

- **System knowledge:** Importance of having holistic view of the dairy farming system to define the fitting dairy system.
- **Farmers perspective:** Be aware of his abilities, limitations and benefits of improvements.
- **Trainer attitude:** Trainers should meet the farmers on an equal interpersonal and subject understanding level.
- **Basic skills:** Concentrate on ABCs of dairy farming and better understanding the business and emphasis on entrepreneur skills, implement follow-ups and complimentary trainings.
- **Long-term planning and management:** Simple farm/business development plan, with priorities upon investment,
- **Short-term planning:** Simple annual operational plan, with budget and SOP's for major activities.



6. Economic sustainability of dairy farms in India/Punjab

Analysis done by A. Saha and T. Hemme, IFCN

Introduction



Doubling farm income till 2022 is one of the key projects of the Ministry of Agriculture and Cooperation, India. Dairy can play a key role.

Options to increase farm income:

- a) higher milk price, subsidies,
- b) lower costs,
- c) Increase production by higher yields; more cows

So, for finding the right strategy, Need to

- Identify the typical farm types in a region
- measure their farm economics for benchmarking
- Compare similar systems in other regions globally

The benchmarking of **Typical farm types** is the basic foundation to achieve the goal.

Farm comparison analysis in 2017



Why? The future of a dairy region is strongly driven by the competitiveness of milk production.

Method concept

- a) Typical farm concept
- b) Model TIPI-CAL
- c) Validation loops & quality check
- d) The cooperation between researchers



Participating countries 2017



Coverage: 52 countries; 89% of world production, 159 typical farm types

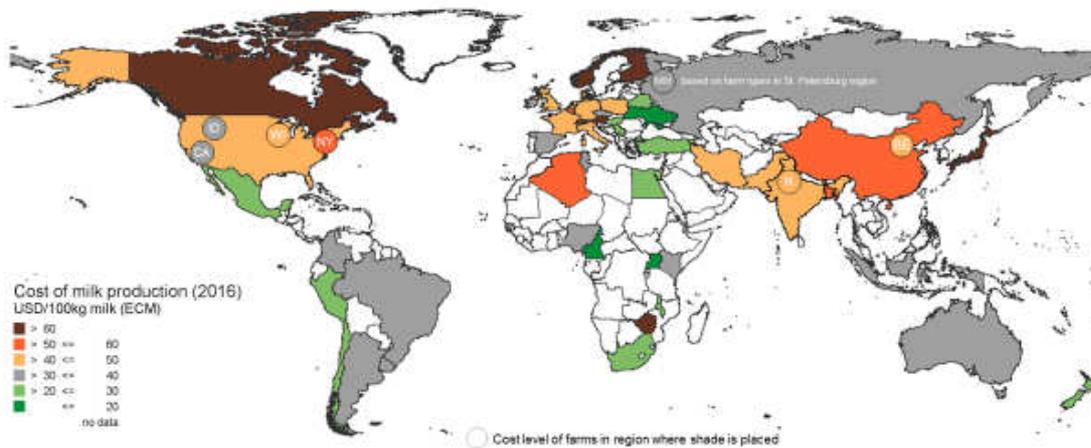
A typical farm type represents in each country a certain production system and x% farm and y% cows

Time period: data for calendar year 2016*

* Seasonal data for New Zealand

Cost of milk production – 2016

On average sized typical farms in USD/100 kg milk (ECM)



India: So far data only for Punjab (Farm type 7 buffalos as average size in Punjab); a 2 cow farm in Punjab would have costs > 50 USD/100 kg; INR33.5 / kg

Typical farms from Punjab: A case study

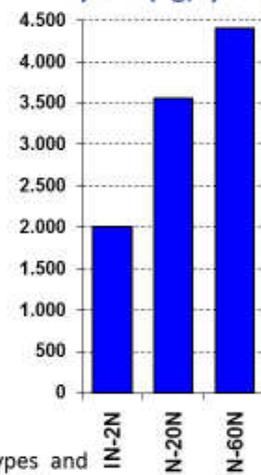


IN-2N : Typical household farm (simulated); 100% family labour; 1.7 SLU ; 2 buffalo unit; 4 ha land in North India; Replacement rate: 15%

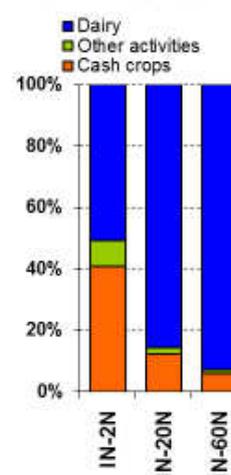
IN-20PU : Typical family farm (60%family labour); 3.3 SLU; HF crossbred cows; 4 ha own land; Replacement rate : 30%

IN-60PU : Typical commercial farm (90% hired labour); 5.9 SLU; 10 ha (4 ha hired in); Replacement rate: 30%

Milk yield (kg/ year)



Farm income

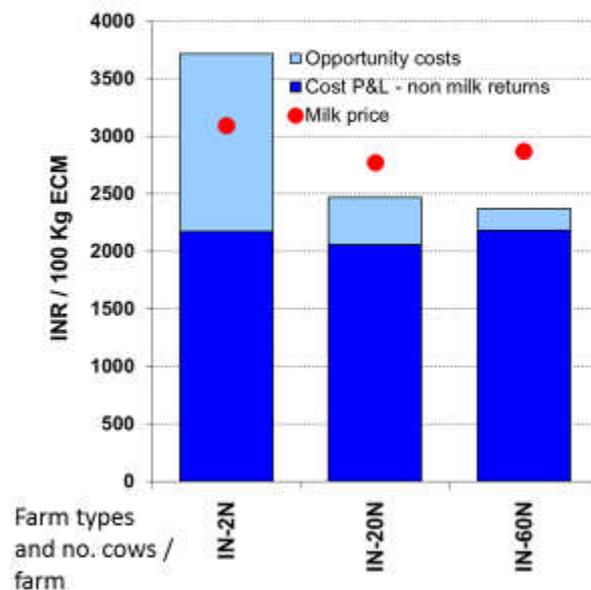


Farm types and no. cows / farm

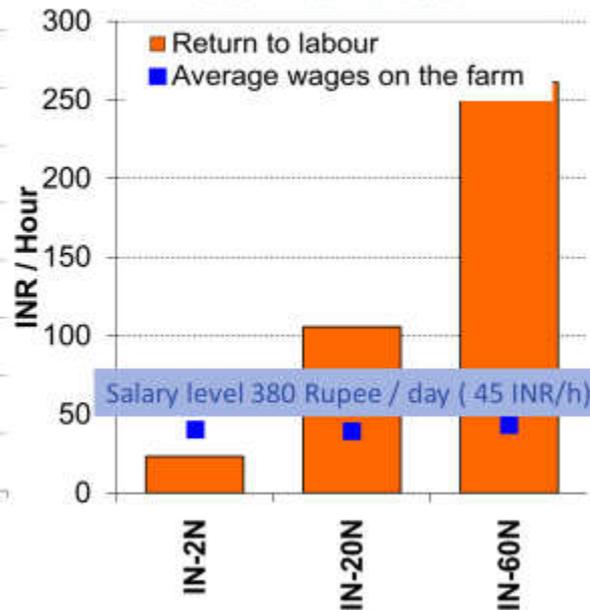
Dairy farm economics in India/Punjab

Year 2016, concept of typical farms

Cost of milk production



Return to labour



Summary

Global dairy economics: The IFCN network has analysed in 2016 dairy farming systems in 52 countries. The competitive range of costs of milk production is 30-40 USD(100 kg; (20-27 INR / kg milk).

Economic sustainability of dairy farms in India Punjab 2016:
 Costs competitiveness: 35-55 USD/100 kg; (24-38 INR / kg milk).
 Competitiveness on the labour market: Smaller farms with 2 dairy animals generate an income which is 50% of the local wage level.

How to double farmers income: Strongest driver = more milk per farm

You can improve what you can measure : IFCN recommends to have more dairy farm economic analysis in India in different states - interested partner, please contact us – info@ifcndairy.org

7. Workshop program

Tue. 28th Nov	Wed. 29th Nov
<p>Optional tour: Dairy farm and plant tour Start 07:00 – end 13:00</p> <ul style="list-style-type: none"> • Meet family farmer -1 and 2 • Visit <u>Lactalis</u>- Tirumala dairy plant 	<p>Session 1 – Dairy sector trends & drivers Start 9:00 – end 10:30</p> <ul style="list-style-type: none"> • Global dairy trends & drivers - IFCN • Indian dairy trends & drivers – Rahul Kumar, <u>Lactalis</u> • Dairy farm economics globally and in India - IFCN
<p>Lunch</p>	<p>Session 2 – Status, trends & drivers of family farms Start 11:00 – end 12:30</p> <ul style="list-style-type: none"> • Family dairy farm development Germany a case study - IFCN • Processors Panel: Corporate programmes strengthening family farms <p style="text-align: center;"> <u>Lactalis</u> ABT <u>Amul</u> Prabhat <u>Dodla Dairy</u> Dr B. Sethupathy C.P. Charles H. Rathod Dr S.S.Ranade S. Reddy </p>
<p>Opening</p>	<p>Lunch</p>
<p>Official start of the Workshop Start 17:30 – end 19:30</p> <ul style="list-style-type: none"> • Introduction to IFCN and its workshops in India • Indian dairy perspective – Shiva <u>Mudgil</u>, Rabobank • Working group – Challenges family farms face in India today 	<p>Workshop – Design the future of family farming in India Start 13:30 – end 16:30</p> <ul style="list-style-type: none"> • Future: Suitable programmes and leadership • Voting: Priorities for making family farms sustainable • Take home message



CONFERENCE



NETWORKING



OPTIONAL



8. Impressions of the workshop

