

Constraints and opportunities of dairy production to provide ecosystem services in urban India

M. Reichenbach*, A. Pinto, S. König, P.K. Malik, and E. Schlecht

*Animal Husbandry in the Tropics and Subtropics, University of Kassel

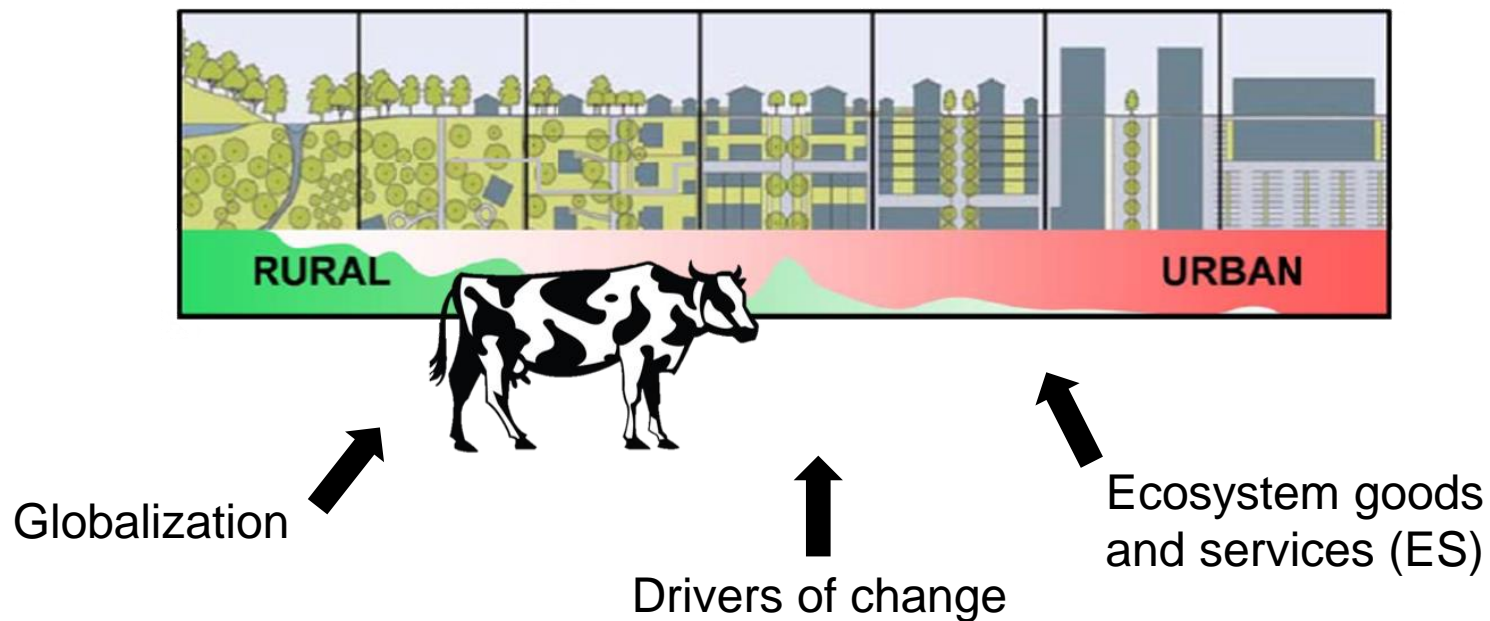
DFG-founded Research Unit FOR 2432



Background

Agroecosystems under pressure

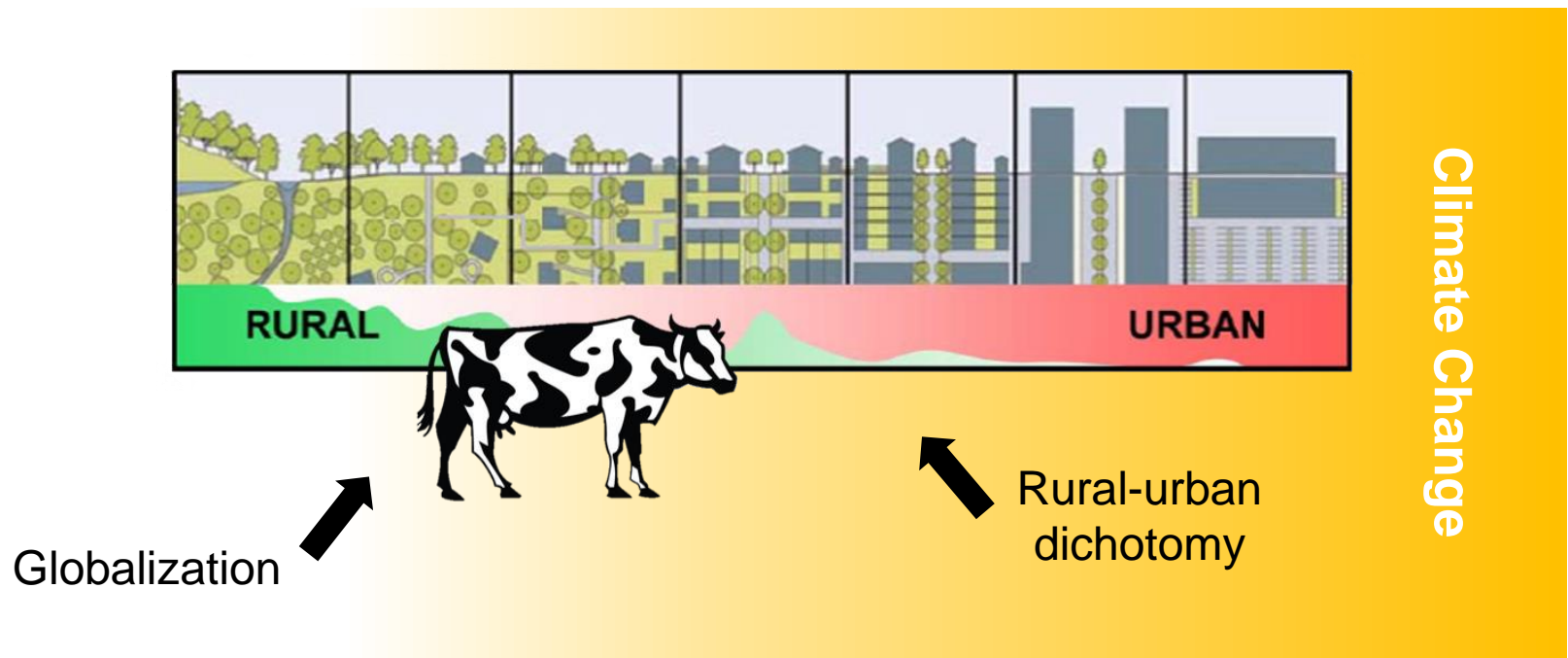
Linkages between production and consumption are becoming more complex



Background

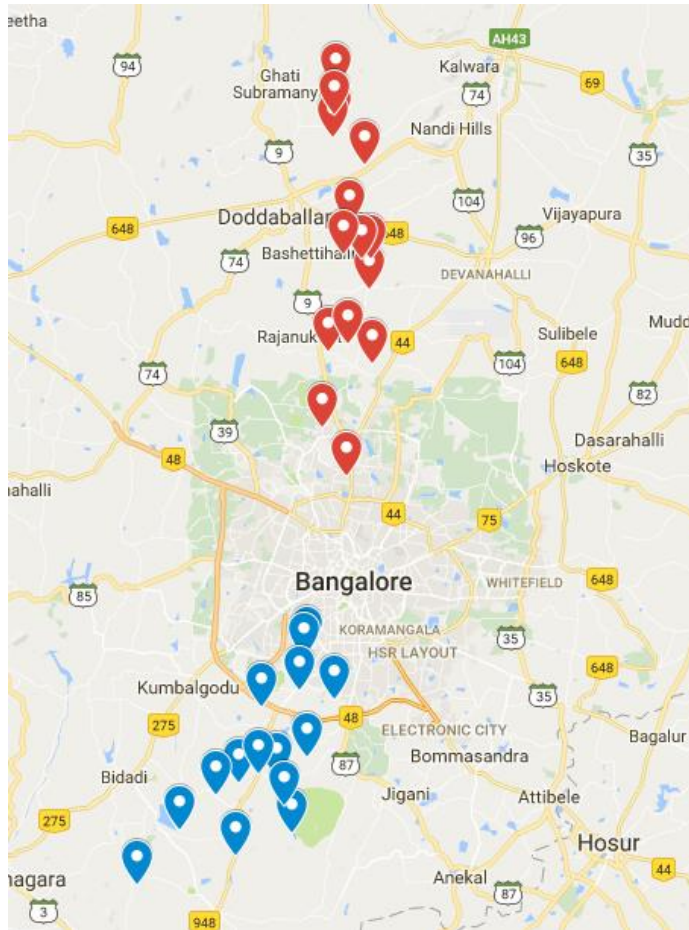
Agroecosystems under pressure II

Linkages between production and consumption are becoming more complex and looser



Methodology

Dairy Production Baseline Survey



Location

Two transects in the Rural-Urban Interface (RUI) of Bangalore

Urbanization assessment

Survey Stratification Index
(Hoffmann *et al.*, 2017)

Survey

337 dairy households across 32 locations, incl. 30 surveys across 8 urban areas

Results

Bangalore urban dairy farmers

Similar within the
whole RUI

Socio-economic profile
Family-based production

Specific to urban
areas

Landless
Alternative marketing channels
Higher production potential

Results

Provided Ecosystem Goods & Services

Provisioning Services



~~High-value products for native breeds~~

- High-value products for native breeds
- Preference for native breeds
- Low productivity
- Low Husbandry

Results

Provided Ecosystem Goods & Services II

Supporting Services



Nutrient cycling

- Waste conversion
Nutrient recycling
- Manure management

Regulating
Services

Results

Provided Ecosystem Goods & Services III

Cultural Services



Spiritual and religious

- Cultural status
- Integration in urban landscape
- Everyone drinks milk

Social links

Conclusion

From Ecosystem Services to Social-Ecological System (SES)

Social framework needs to be taken into account

