

Food transition of the middle class – A case study in the growing mega city of Bengaluru

Mirka Erler

Keywords: Middle class, Food transition, Bengaluru, India

The research project

The research project *Sustainable food consumption practices of middle-class consumers* aims to investigate the state of Indian food transition and its implications for food production, processing and marketing. It is part of the DFG funded researcher group FOR2432 *Socio-Ecological Systems in the Indian Rural-Urban Interface*. Research activities focus on Bengaluru, the capital of the Indian state of Karnataka.

The research framework

The research is guided by two theoretical frameworks. The first framework is the *diet-environment-health trilemma* by Tilmann and Clark (2014). It states that food production has manifold negative impacts on the environment. In addition, increasing consumption of climate-damaging foods like meat and dairy products leads to a rise of non-communicable diseases (NCD). The authors suggest alternative diets, such as vegetarian or Mediterranean, as a way improve people's health as well as the environment.

The second framework is the concept of *food transition*. This global phenomenon is reflected in most countries in an increased demand for meat, empty calories, as well as an increasing calorie consumption per person (Tilman & Clark 2014: 519). Although India is no exception, the implications of *food transition* differ significantly from other countries. In general, calories from meat and dairy products replace a lot of the calories that were consumed as cereals before. Especially in urban areas the cereal consumption decreases (Deaton & Drèze 2009: 48). However, the calorie consumption per person declines as the consumed amount meat and dairy products is not sufficient to replace the ceased cereals. This indicates that India will need an own model of *food transition* (Landy 2009: 59–61).

Pingali and Khwaja (2004: 6) suggest that the *food transition* in India happens in two stages. In the first phase of "*income-induced diet diversification*" diets will be diversified but at the same time retain most of their traditional features. Accelerating economic growth is the main driver for this phase. An example would be the increasing demand for different, high-quality rice varieties. In the second phase, the "*diet globalization*", globalised diets slowly supersede traditional diets. An example would be the consumption of instant-noodles instead of a traditional rice or millet dish for breakfast.

Scholarship has identified middle class households as drivers of changes in nutrition (Dittrich 2009: 271). Increasing wealth and upward mobility from the lower to the middle class have become main triggers for food transition. The adverse implications of an unusual food transition in India, among them diabetes or other NCDs (Shetty 2002: 178) call for further investigations of this topic. This article will provide an overview over the research area and present first preliminary results from the fieldwork carried out from September to November 2016. In the further course, the research project aims to further describe and analyze sustainable diets rooted in the traditional food habits of the people corresponding to the alternative diets described by Tilman and Clark (2014). The question whether these traditional diets can be integrated in a sustainable food transition will also be pursued.

Bengaluru – the research area

Bengaluru is a prospering metropolis in south India. It is part of the so-called technology triangle with Chennai and Hyderabad. Bengaluru underwent a massive growth by about 51% - from about 6 to 9 million - between 2001 and 2011, which was mainly induced by the demand for labour of the growing IT-sector. Today the city has a population of about 10 million people. Bengaluru is no exception in India, where natural population growth and rural-urban migration result in rapid urbanisation.

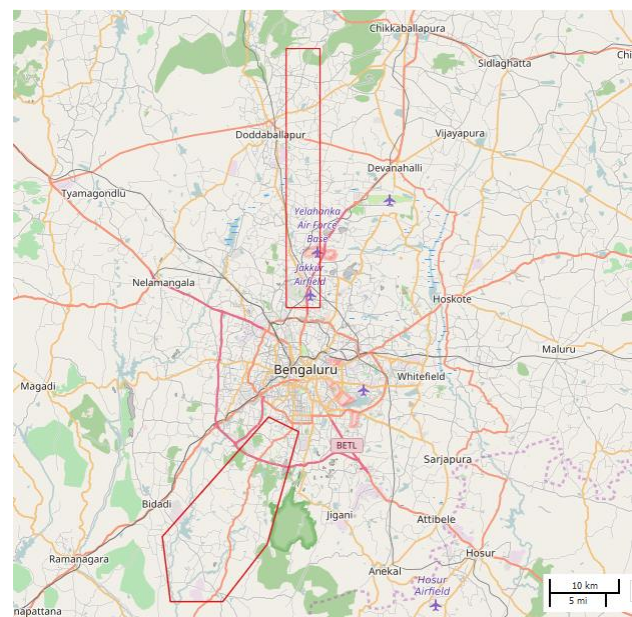


Fig. 1: Research area in the first field research (Source: Open Street Map modified by Hoffmann 2016)

The project's first research phase focused on the rural-urban interface of Bengaluru (see Fig. 1). A survey was conducted along two transects in the north and in the south of the metropolitan area to provide for the comparability with other sub-projects of FOR2432. Both transects are oriented along major routes leading to the cities Dotballapur in the north and Kanakapura in the South. Both cities as well as smaller retail centres along the roads fulfil significant provision functions for the villages included in the survey. It was observed that the number of small shops such as bakeries and Kirana shops (small corner shops selling basic commodities) as well as the prevalence of multi-level houses and paved roads increase towards Bengaluru.

The importance of agriculture, however, seemed to decrease with nearness to the city. The villages' inhabitants were relatively affluent compared to all India. This impression was underlined by the observed high prevalence of status symbols such as cars, motorbikes and modern houses. People invest in education, hence, a relatively high number of people in the interviewed households held college or university degrees. However, respondents described the job market as rather difficult and that a good education not necessarily provided employment in the aspired field.

Agriculture is often supported by tractors which are occasionally rented for specific tasks. Animal husbandry is mostly carried out extensively. Despite the persistence of cash crops such as maize and grapes in the area (see Fig. 2), agricultural activity has become either a mean for retirees to stay active or a way to preserve a household's agricultural identity. Labour intensive crops like rice are rarely grown due to relatively high labour costs in the region. Furthermore, the study revealed that a number of small horticultural businesses exist in the north of the city. These businesses often employ migrant workers from less affluent regions of the country and use the nearby airport to export their products.



Fig. 2: Grape cultivation in Bengaluru's rural-urban interface (Picture: Erler)

Moreover, the airport is the main trigger for increasing land speculation in the north. Admittedly, the willingness of the people to speak about the land they sold to developers was low. Land ownership contributes to

the people's sense of identity and we got the impression that the former owners were ashamed to report that they sold land. In the south, Bengaluru's rural-urban interface is strongly influenced by industrial areas. These areas are slowly superseding agriculture in the area, which is indicated by dire environmental impacts caused by them.

Both industrial growth in the south as well as the expansion of residential layouts in both transects for the growing population of Bengaluru contribute to large-scale land acquisitions. Land remaining in the possession of local families is often only cultivated for own consumption. Many families reported to hold less than 3 acres of agricultural land. Often it could not be clarified if this was the amount of land owned originally or if the small proportion was due to land sales. Furthermore, traditional varieties especially the consumption of millets such as *Ragi* (finger millet) seems to experience a kind of renaissance especially in the more urban areas where they fell into oblivion in the last decades. People praise it as nutritious and traditional and develop manifold options to include it into their diet. Apart from that the traditional preparation namely *Ragimudde* (a ball formed out of soaked finger millet flour) was often mentioned as favourite food.

Preliminary results and discussion

The preliminary results of this study support Pingali and Khwaja's concept of a food transition. The rural-urban interface of Bengaluru moves between the first and second stage described by the authors. The stage of transition is interrelated with affluence as well as the location of a household. Even within households, food consumption patterns can vary significantly. A family could for example maintain a very traditional diet with a high variety of lentils and rice compared to 10 years ago when they would only eat rice and lentils provided by the Public Distribution System (The Economic Times, no date).

According to the food transition model their food consumption pattern would correspond to stage one of the food transition. The family's eldest daughter attends a college in central Bengaluru where she frequently goes to Western fast food chains together with friends. For breakfast she prefers toast and jam over the traditional rice dish her parents usually have for breakfast. Her food consumption corresponds to stage two of the food transition. This exemplifies that food transition is also, on a micro-scale, influenced by marital status, age and exposedness to globalised diets. In addition, values and perceptions associated with socio-cultural status (partially according to self-perception) seem to play a more important role than the socioeconomic status or location of households. For instance, a household in a rather rural seeming setting could practice a globalised diet because of their business relationships in Western countries. Consuming globalised food becomes a practice of belonging to an urban upper middle-class.

Unsustainable food practices such as frequent meat consumption and the consumption of processed dairy products require a certain economic affluence. Since a lot of households still experience economic constraints they stick to the traditional and likewise sustainable food consumption patterns. Conscious transition towards sustainable food consumption was observed in rather few upper-middle class households. Furthermore, households of all social classes reported to strive for a traditional diet, which could be the key to a sustainable food transition in the area. Fig. 3 provides a glimpse into a typical lower middle-class kitchen in the rural-urban interface of Bengaluru. The kitchen is equipped with a gas stove but no refrigerator as the family's food practices do – despite a certain affluence – not (yet) require cool storage.



Fig. 3: Typical kitchen in a middle class household in Bengaluru's rural-urban interface (Picture: Erler)

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Kontakt

Mirka Erler (M.Sc.)
Geographisches Institut, Universität Göttingen
Goldschmidtstraße 5, 37077 Göttingen
mirka.erler@uni-goettingen.de