

Can supply trigger consumer demand as entry for food system transition? The case of Tempeh

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Background: Food systems transition can contribute significantly to stay within planetary boundaries, with the protein transition – moving from animal- to plant-based - considered to be a central component. Changing consumers' behaviours and preferences can drive this protein transition. India with its more than 1.4 billion inhabitants presents an impactful opportunity to contribute to a protein transition worldwide. At the same time, India offers an important market opportunity for food businesses, of which some work on protein transition.

This factsheet presents findings of a case study focused on soy-based tempeh as an example of protein transition in India. This case study is one of two case studies that form part of a wider WUR Knowledge Base research project on the Role of consumers in Low and Middle Income Countries (KB35-102-003).

Objectives: Deepen the understanding of the role of consumers by looking at drivers, forces, and opportunities around soy-based Tempeh as a novel product for plant-based protein transition in India.

Methodology

The case study draws especially on interviews with four key informants, and a quick scan of different tempeh-oriented initiatives in India. Analysis of the data collected from these different sources produced insights which were then used as input in an enrichment and validation workshop (11 participants).

Results: In higher income countries protein transition is a term used to refer to a transition from animal-based to plant-based proteins. In India, the change seems to refer more to a transition from carbo-hydrates to (plant based) proteins. Hence, rather than a protein transition, a food transition may be more appropriate.

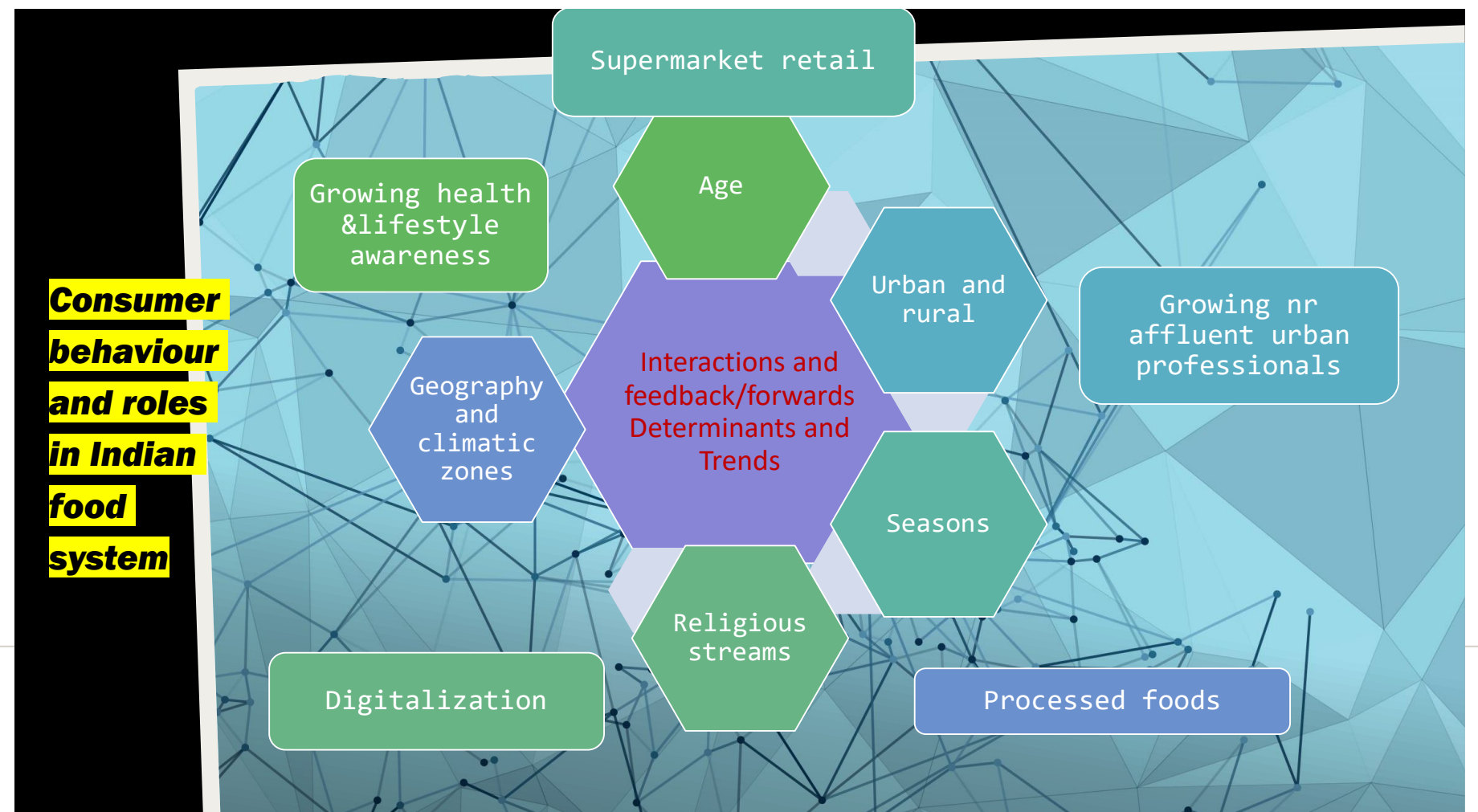
To analyse India's food system, first, two analytical lenses have been developed. These were then applied to the case of soy-based tempeh.

The first analytical lens consists of a mapping of main determinants and trends (figure 1). The second of assumptions about actors possibly active in a food systems (figure 2).

In figure 1, five determinants are shown (*hexagons*) that influence the overall food system and food preferences in India: geography and climatic conditions, urban or rural location, seasons, age groups and religious (sub)streams.

Five major trends (*rectangles*) in the food system and resulting food behaviour have been identified: growing health and lifestyle awareness; growing food processing and consumption of processed foods, growing number of affluent urban professionals, change in retail sector, and digitalization.

Figure 1: Analytical lens 1 - determinants and trends



Although not shown in figure 1, the interactions and feedforward and feedback loops, have a strong influence.

E.g. young professionals from a religious stream in urban cities may try new food products, but older members of the same stream may prefer to hold on to their traditional diets as they feel it to be part of their identity.

Or: increased consumption of processed food may result in healthier diets for young affluent consumers in urban cities, because they purchase frozen vegetables, contrary to poorer consumers who switch home-cooked meals for cheap prepacked roti buns.

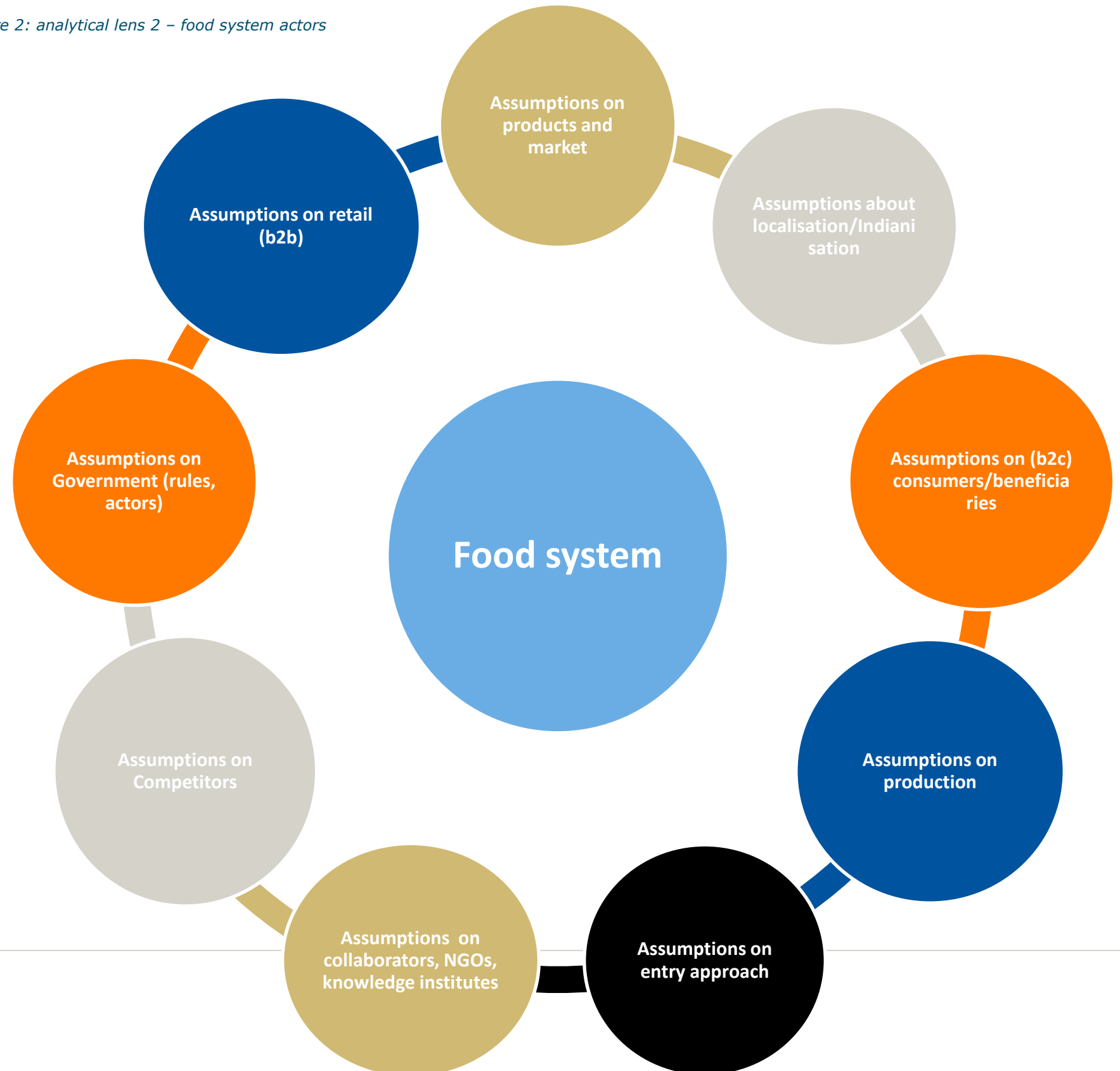
A second analytical tool refers to the food system actor lens (figure 2). The lens can be used to quickly map potential actors or actor groups. It specifically can:

- Make assumptions explicit and check these
- Find out where data is to be collected or generated?
- Identify areas that require monitoring
- Identify areas that are beyond one's influence or control
- Identify areas that may represent risks

The first analytical lens offers a quick way into a complex, multi-layered food system, the second lens a handle to obtain an overview of actors potentially involved in a food system. This is particularly in relation to the introduction of new food products, and (implicit) assumptions that may shape intervention strategies. Used as overlays, the two analytical lenses together offer angles to unpack a specific situation or food product.

A third analytical tool of consumer organizations as potential proxy indicator for consumer concerns has not been developed further.

Figure 2: analytical lens 2 – food system actors



Given India's huge and mesmerizing range consumer categories, an inside out analysis was used to gain understanding by zooming in tempeh as a novel soy-based protein food product. Tempeh represents an alternative, for example, to the Indian classic of paneer (cottage cheese). The case study comprised of two organizations : (the Dutch) Schouten Europe Group's initiative with Tempe Today, and Solidaridad, an international NGO working with small soy-producers with the main focus on the first. Schouten Europe Group went to India to gradually introduce this originally Indonesian food product by becoming part of the Indian food system. In India, tempeh is produced and marketed to middle-class income consumers in urban cities. They are the ones interested in healthier diets with the purchasing power.

Five key approaches used by Schouten emerged:

1. An enduring journey of committed learning and research
2. Experimenting and innovating with production, processing and marketing – led by assumptions and social compass
3. Food System Networking simultaneously with many actors
4. Importance of going local and of Indianizing Tempeh in order to broaden action streams, partner engagement opportunities, speak to different foreign-domestic actors
5. Combine business with a social drive by using flanking strategies to support/reach poor(er) households
6. Influencing consumers by speaking to their interests in health and lifestyle (although the mother-company does aim to contribute to protein transition) through use of social media and guru-influencers-celebrities

Solidaridad is an international NGO that came to working with consumers from a very different angle. It originally worked with small soy producers, but then moved to influencing and working with them and their families to enrich their food consumption with soy protein to tackle malnutrition.



Photo: a rice dish (biryani) with Tempeh

Conclusion

The case findings point to a lead by food producing business in a plant-based protein transition, and the comparatively inconsequential role and influence of consumers. Food companies take on and strengthen a growing demand for healthy food products, contrary to consumers, possibly hampered by the diversity and low degree of consumer organisation with regard to food systems.

Moreover, the results indicate that the middle-income urban consumer is key in the transition. It is not one activity that will support the transition but the interplay between them, especially in relation to consumer awareness, making Tempeh something personal, and connecting with other drivers, such as soy farmers who want to advance soy consumption and to increasing the valorisation of the whole soy and not only its oil content.

Discussion:

The case study shows that in India tempeh producing companies, including Schouten Europe Group focus on affluent middle-class consumers in urban cities. However, this research is to contribute to Zero Hunger. The case study findings therefore bring up an important question: for and by whom is a Protein Transition to take place? Solidaridad, an NGO that works with small soy producers and came to consumers to improve their nutrition status. Schouten uses flanking strategies to support poor(er) households. Consumers supported by Solidaridad, an NGO working with small soy producers and those serviced by Schouten live in and experience a very different India. From the perspective of those who propose a plant-based protein-transition, it seems important to not only look at what consumer category can play a role in such transition, but also how it would impact different consumer categories, and, in the end, who is to benefit from it.

From a social perspective, in a country, such as India, a 'vegolution' towards consumption of healthier plant-based protein food products may sit uneasily with the degree that many still struggle to consume a quantitatively and qualitatively satisfactory diet.