



NUTRITION *in* CITY ECOSYSTEMS



Knowledge & Demand leaflet 1

Increasing the demand for nutritious foods produced using agroecological practices

Showcase:

BANGLADESH





The current food system is failing to produce and deliver high-quality diets to meet the nutritional needs of more than 8 billion people worldwide. About a third of the world's population suffers from some form of malnutrition, and many countries face a triple burden of malnutrition, meaning the coexistence of overnutrition, undernutrition and micronutrient deficiencies.

The challenges of failing food systems get further aggravated by more and more people moving to cities. In city settings, poor diets often result from a mix of factors, including shifts in the food environment, e.g. easier accessibility to highly processed foods, and changing perspectives and behaviours toward more convenient food. Similarly, degradation of natural resources and pollution often go along with rapid and unplanned urbanization.

The Nutrition in City Ecosystems (NICE) project works to improve nutrition and reduce poverty by increasing the supply of and demand for nutritious food produced using agroecological practices in six secondary cities across Bangladesh (Dinajpur and Rangpur), Kenya (Bungoma and Busia), and Rwanda (Rubavu and Rusizi). The NICE project works closely with local governments at secondary city level and aims to facilitate locally led actions to improve nutrition through agricultural, food, and health sector collaborations and public-private engagements, with strong emphasis on the role of women and youth entrepreneurs (see [Project Factsheet](#)).

Activities for increased and improved production and demand generation for participatively selected food value chains are at the core of the NICE project. Besides organizing smallholder farmers around so-

Secondary cities are geographically defined urban jurisdictions or centres performing vital governance, logistical, and production functions at a sub-national or sub-metropolitan region level. Generally, the population of secondary cities ranges between 10–50 % of a country's largest city.

Source: World Bank

called Farmers' Hubs and enhancing training on agroecological and good agricultural practices, public nutrition education and social behaviour change campaigns targeting consumers are run. Additionally, stakeholders involved in food system governance are empowered and supported to better collaborate. Peer-learning and information sharing sessions are other important components of NICE aiming at empowering and inspiring individuals active in food systems with knowledge and skills to drive meaningful food system transformation.

This leaflet presents more information about the demand creation workstream of the NICE project in Bangladesh, which aims at creating knowledge and demand for nutritious foods produced using agroecological practices (*Figure 1*).

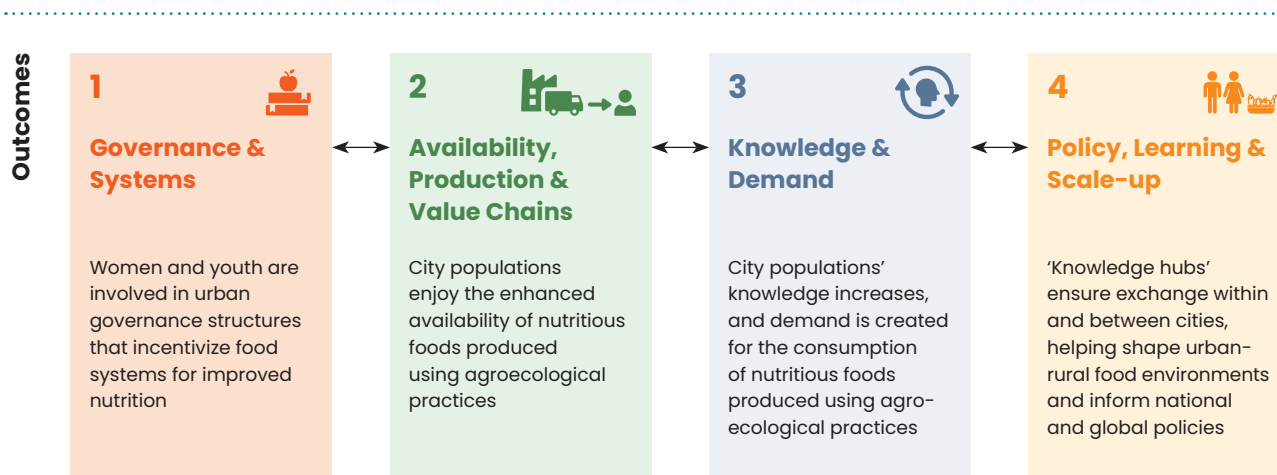


Figure 1: The four main outcomes of the NICE project



Why is there a need to create demand for nutritious foods produced using agroecological practices?

It is widely recognized that access to and availability of a certain food does not necessarily guarantee its utilization or consumption. We need to go beyond supplying and informing, and instead use effective measures, such as emotional appeals and social influences, to enhance food production, improve supply

practices, and stimulate demand and consumption for nutritious foods. In a world of multiple options and wide-spread misinformation, we need to gain key insights on motivators and nudge farmers and consumers towards better production practices and consumption choices for themselves and their families.

The demand creation efforts include four stages:



Figure 2: The demand creation process flow



Figure 3: The social marketing strategy design process

Agroecological practices apply the concept of agro-ecology (utilization of ecological and social concept and principles in the design and management of sustainable agriculture and food systems) in agriculture. NICE specifically concentrates its efforts on five of the 10 main agroecology elements shaping sustainable food systems transformation: efficiency, recycling, diversity, resilience, and culture and food traditions.

Source: FAO

Nutritious foods are foods, that in the context where they are consumed and for the individuals that consume them, provide beneficial nutrients (e.g. vitamins, major and trace minerals, essential amino acids, essential fatty acids, dietary fibre) while being poor on potentially harmful elements (e.g. antinutrients, quantities of saturated fats and sugars etc.).

Source: GAIN

How did we design the formative research study for the NICE project?

Bangladesh case:

The objective of the formative research was to interview farmers and consumers to obtain insights that could inform the development of a comprehensive social marketing campaign for nutritious foods produced using agroecological practices in two secondary cities, Rangpur and Dinajpur, in Bangladesh.

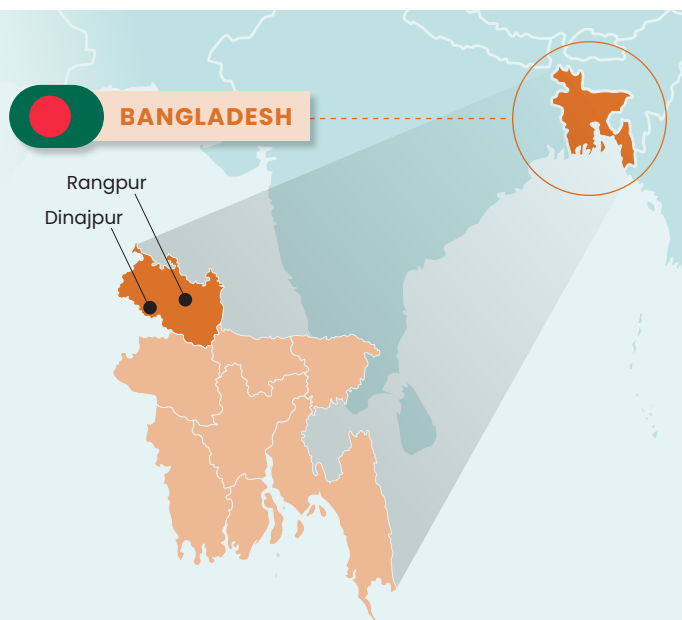


Figure 4: Map with a part of Asia and Bangladesh, with the Rangpur Division, where Rangpur and Dinajpur city are situated

The used qualitative and quantitative research methods were comprised of:

- 1 **Key informant interviews:** we interviewed teachers to understand their prevalent meal repertoire, purchase basket, value basket, and narratives thereof (*total: 4 interviews*).
- 2 **In-depth interviewing and in-home observations:** we developed a topic guide to deeply understand consumption practices, health and nutrition knowledge and beliefs of pregnant and lactating women. We also observed practices and behaviour of pregnant and lactating women at home (*total: 18 interviews*).
- 3 **Shop-along observations:** we observed chief wage earners (husbands) and key decision makers (wives) to monitor purchasing behaviour (*total: 4 observations*).
- 4 **Mini group discussions:** we conducted a total of 22 discussion with youth, mothers and farmers.
- 5 **Quantitative survey:** we conducted surveys among 242 people including women of the house, and chief wage earners and youth to delve deep into consumer perception, attitude, and behaviour (*total: 242 respondents*).

The study sampled 290 respondents and included qualitative exploration with teachers, mothers, wage earners, decision-makers, and farmers to understand consumer perceptions, attitudes, and behaviours. A quantitative survey was conducted with women and youth to explore household dynamics, focusing on food purchase, preparation, and consumption.

The survey also covered young women, women of reproductive age, and farmers, considering their roles as food producers and consumers. Research for farmers explored farming practices, challenges, and information sources, while also addressing personal motivations in Rangpur and Dinajpur.

What were the general findings obtained from the formative research?

Motivations and anxieties around food production, purchasing and consumption among Bangladeshi consumers

Perception of nutrition is similar in both Rangpur and Dinajpur region. A balanced diet is synonymous to having nutritious food items included in the meal. The spontaneous association with balanced diets are leafy and green vegetables, fish and meat, eggs and milk. However, gaps remain when it comes to planning a day's balanced meal. People do not know essential nutrients and vitamins are required to be healthy. They do not have nutrition awareness among them.

"I try to give my kid egg everyday. It's a good option because he likes to have it and also we know egg is a nutritious food."

Mother, Dinajpu

Mothers by nature and tradition assume the role of caregivers in the family. In households with limited resources and food availability, mothers have the tendency to put themselves last or not to pay any attention to their own nutritional need or deprivation of it. For pregnant and lactating women, food intake is usually similar to other family members. There is no special cooking or food arrangement for pregnant and lactating women, where meals are regular.

Youth and kids, despite a comparatively broader sense of nutrition, do not follow the school learnings in their own daily life. Practice and perception do not go hand in hand. Other than family's income status,

taste is a major factor in play when it comes to youth and kids' nutrition. Given a choice, youth would want to pick the food option that taste better to them, instead of the one that would be healthier.

A typical Bangladeshi meal plate is heavily dependent on carbohydrates. In the formative research, the most common carbohydrate consumed was rice followed by ruti (bread). Both were consumed with either green leafy vegetables, curry or a protein. The most common animal-source protein consumed is fish followed by eggs and chicken.

A large part (70%) of consumers prefer wet markets or bazars for shopping perishable items, while nearby shops are the go-to places for grocery items. For both types of items, consumers seek convenience along with fresh products and better price features.

Household food consumption in Rangpur and Dinajpur is mainly in-home focused. Going out to eat is seen as an extravaganza and maybe an aspirational dream for occasional treats or celebrations. The responsibility of cooking falls almost solely on the female members of the family; with very few exceptions where the husband helps out in cooking by doing small chores (peeling, cutting, etc.).

Family, health practitioners, shopkeepers and media (TV, YouTube) are considered the most trusted sources of information regarding health and nutrition.



Figure 5: Man selling fresh vegetables at Dhap city market in Rangpur



Figure 6: Woman selling vegetables at Bou Bazar in Dinajpur



Figure 7: Mother feeding her child spinach, rice and eggs

Aspirations and worries around food production among Bangladeshi farmers

The average local farmer in Bangladesh is a male, typically 30–55 years old, who aspires to provide a better future for the family, to ensure an alternate sustainable income stream and to send children for higher study/training. Farmers also aim to broaden their capacity of farming in terms of land and technology and to be a role model for other farmers. Involvement of the female farmers are also increasing gradually.

“My childhood has been spent in poverty. I don’t want my children to have the same struggles. So, I want them to study and receive good education.”

Farmer

Farmers are concerned about their livelihood itself, anything other than the crop appears in the second layer of concern. Their primary fear is not getting adequate price for the crop to cover expenditure. Other major concerns include damage of crops, ever shrinking profit margin, and increasing cost of labor.

Many farmers interviewed receive support from various NGOs, INGOs and Government bodies as well. They receive full on training to make better production and gain practical knowledge on agricultural practices.



Figure 9: Farmer Hub owner collecting tomatoes from her farm in Rangpur



Figure 8: Farmers brought the fresh produces to the sellers of Dhaap city markets for the city residents

In Rangpur and Dinajpur, farmers understand the requirement of adapting new techniques for better productivity. They see that climate change, diseases and insects force them to change to new techniques or products. Furthermore, they understand the importance of technology and want to adopt it, but they fear their lack of education.

“We need courses and trainings to learn more, including topics like proper cultivation of various crops. The farmer community is very strong. A training program which is actually effective and informative will generate interest and participation through word of mouth as well.”

Farmer

Lastly, farmers in Rangpur and Dinajpur engage two main media outlets (television and smartphone), with television being the most frequently accessed. Smartphones are mostly used by younger generations.

“I think television is the best way. If I know about any such program where there is half an hour streaming on agriculture, I would definitely watch it.”

Farmer

Why is a targeted social marketing campaign important?



Figure 10: Community asset mapping in Dinajpur

The formative research helped ascertain that apart from financial limitations, there are gaps between what the consumer perceives as healthy and nutritious and what their consumption and production practices are. Social marketing is an effective way to

address this gap in consumers' perception of nutritious foods produced using agroecological practices and any barriers towards purchasing and consuming these foods.

A social marketing approach aims to encourage the target audience to modify their behaviour in either of the following four ways:

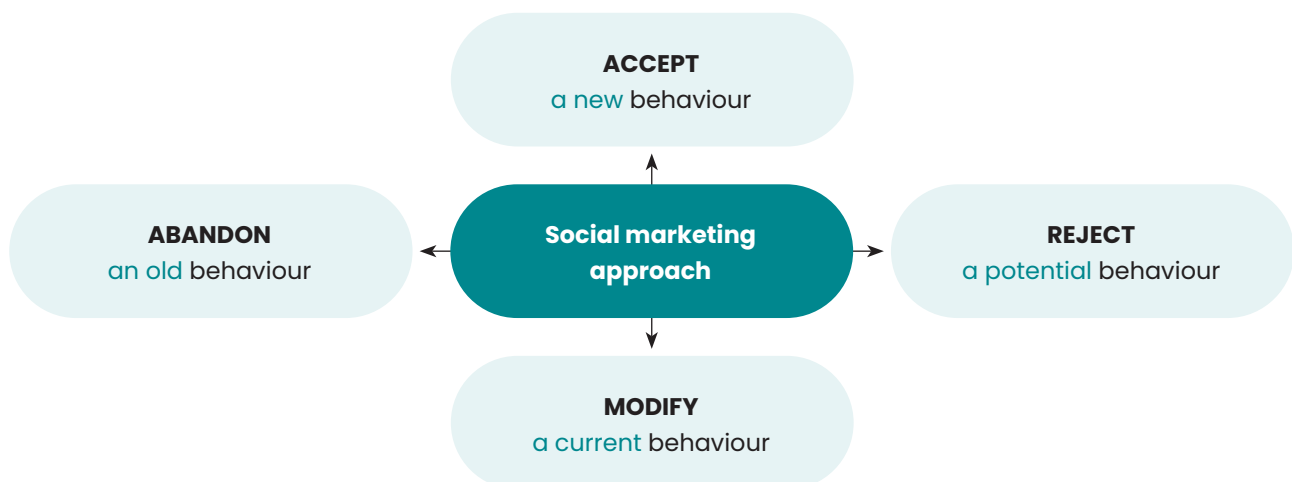


Figure 11: Four ways through which behaviour can be modified in a social marketing approach

What does the social marketing campaign look like in the NICE project?

The social marketing campaign in the NICE project spoke to a broad audience with the target segments being pregnant and lactating women and their husbands, mothers with at least one child under 5 years and their husbands, adolescents and their parents, and farmers. The aim of the NICE social marketing campaign was to build awareness about dietary diversity, clean, tasty and local food in an inspirational, appreciative and positive way.

In this regard, a local Bangladeshi creative agency helped to design a branded and targeted social marketing campaign called Shukrishi with the Big Idea being “Bringing out the Goodness in Life”. The target audiences have diversified life stories. They have their own challenges, wins and motivations in life. Despite all the differences between different target

audiences, one thing that connected them is their aspiration to have a better life. The campaign tag-line was therefore: “The Goodness we bring”, “Call for an active participation” and “Tells about a dream”. The first phase of this social marketing campaign lasted for 3 months.



Figure 12: Brinjal, bitter gourd, and cucumber are some of Bangladesh-specific value chains in the NICE project



The first phase of the NICE social marketing campaign comprises activations in three main settings:



› **Rally** – a public gathering to support or oppose something. In the NICE social marketing campaign these “rallies” were held in Rangpur and Dinajpur districts to create awareness and support improved nutrition via food produced using agroecological practices. A total of 400–450 attendees participated to the rally in both districts.



› **Focus Group Discussion called “Uthan Boithok”**): these 1-hour discussions were targeted towards pregnant women, lactating mothers, and adolescents in Rangpur and Dinajpur districts. A total of 30 Uthan Boithok were held between May 22nd and June 3rd, 2023. The key messages were on the impact and benefits of agroecology and the importance of nutrition.



› **Farmers’ Hub fairs**: In the fair the Farmers’ Hub owners actively participated and showcased their produces. This fair ensured the marketing of the Hubs in their regional area and the farmers could also take the profits by connecting with them. Moreover, local government authorities and relevant stakeholders were also present in this fair. These fairs foster community unity, talent showcases, and inclusive participation, enriching district culture.

How did the monitoring and evaluation of the social marketing campaign help?

Monitoring and evaluation (M&E) was carried out accompanying the social marketing (before and after) to assess its effects. The key findings of the M&E help assess the awareness level on nutritious foods produced using agroecological practices among consumers and farmers.

Almost 60% of the respondents heard or got to know about the campaign “through a family or friend” showing a strong positive word-of-mouth

The top knowledge transferred through the campaign were:

1. Better food consumption practices
2. Purchase healthier food
3. Better farming practices

The understanding of health as the “absence of disease” and “strong immunity” increased from 67% to 89.7% and 40% and 62.1%, respectively. The understanding of nutrition as “foods that help to grow and keep healthy” increased from 77% to 91.8%.

On the farmers’ side, rice and leafy green vegetables were the crops that were grown the most with 98.4% of farmers growing these crops, followed by maize (95.1%) and brinjal (88.5%). For the place of selling produce, the percentage of farmers selling in local markets increased from 80.8% at baseline to 88.5% at endline. The percentage of farmers selling to wholesalers directly increased from 30.8% to 36.1% and they were concerned about not getting the fair market price. On the other hand, the percentage of farmers sending their produce to city markets decreased from 26.9% to 18.0% as they mentioned facing high transport costs. Familiarity with the term “agroecology” reached 100% in both cities at endline compared to 26.9% at baseline, and agroecology was mostly understood as focusing on using less chemical fertilizer (23.8%) and pesticide (14.3%).



Figure 13: Farmers' Hub Fair at Dinajpur

Perceived knowledge of agroecology cued the following:

- › Safe food for consumption, free of chemicals
- › Beneficial for health, the environment, and the land
- › Consumers would be happy to know they are consuming safe food
- › Protect the soil fertility
- › Increase consumption of vegetables

The knowledge and use of organic fertilizers showed significant improvement, reaching 68.9% from an initial level of 56.4%. Similarly, the knowledge and use of organic pesticides increased from 33.3% at baseline to 52.5% at endline. Finally, the percentage of farmers open to changing the type of crop they grow increased from 85.9% at baseline to 96.7% at endline.



Outlook on phase 2

The Phase 2 of the demand generation strategy focuses on making a clearer link to the specific value chains as they become more readily available in city markets.

This requires the use of strategic social marketing and a whole system approach, to facilitate coordinated action of individual consumers, producers, community organizations and local institutions, all geared to positively shifting consumer purchasing and consumption habits to an increased appreciation and consistent demand for specific value chains. Notably, the social marketing strategy will focus on strategically engaging vendors, who sell nutritious value chains and empower them with messages to be able to encourage consumers to purchase these foods. For consumers, the social marketing strategy will focus on building the confidence of mothers in preparing easy, tasty, affordable and nutritious meals with the nutritious value chains and address fathers to invest in the wellbeing of their families. The strategy will also target youth with play-based learning to spark curiosity in the

topic of nutrition. To ensure local ownership and sustainability of all interventions, a toolkit is being developed which is leveraging existing formative research and lessons learned from the executed campaigns.

The kit includes:

- A)** an interactive training element with social marketing and motivational interviewing targeting nutritionists and community health workers,
- B)** a series of community and systems level intervention tools aimed at positively nudging and increasing practical skills and confidence of mothers in making small, yet effective, changes to their diets.

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Authorship: *Sight and Life Foundation*

The NICE project is supported by the Swiss Agency for Development and Cooperation and implemented by a public-private consortium which includes the Swiss Tropical and Public Health Institute, ETH Zürich, *Sight and Life* foundation, and Sustainable Agriculture Foundation.

Further information is available on the **NICE webpage:**

nice-nutrition.ch