



# NUTRITION *in* CITY ECOSYSTEMS



Knowledge & Demand leaflet 1

## Increasing the demand for nutritious foods produced using agroecological practices



Showcase:

**KENYA**



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 Kenya, 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

Understanding the behaviour of targeted urban communities through a (1) formative research helps to (2) design a social marketing strategy and (3) to develop a social marketing campaign. This social marketing campaign includes interventions appealing to the local culture and behaviour to positively influence farmers' practices and consumers' choices towards nutritious foods produced using agroecological practices.

The final step of the demand creation process is to (4) monitor and evaluate the impact of the social marketing campaign to further improve interventions and share knowledge with the community and stakeholders. The following sections will describe the four stages implemented in Kenya.

**Agroecological practices** apply the concept of agroecology (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?

### Kenya 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, Busia and Bungoma, in Kenya.

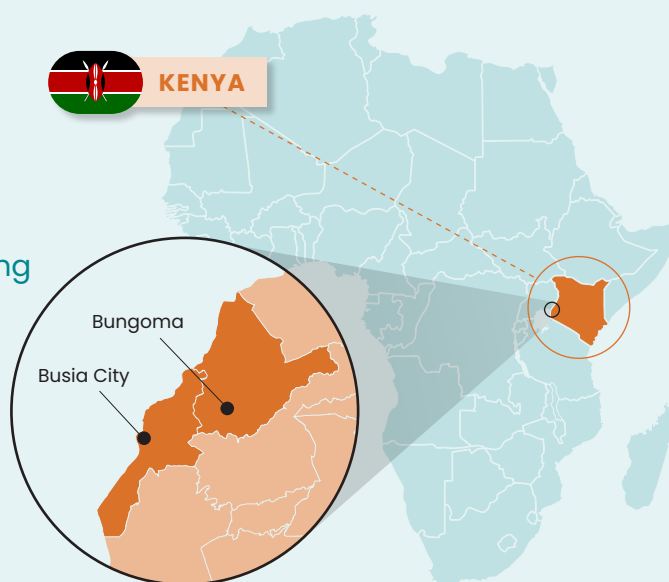


Figure 4: Map of Africa and Kenya, with Bungoma and Busia county, where Bungoma and Busia city are situated

### The used qualitative research methods comprised four different data collection methods:

- 1 **In-home and farm observations:** we observed practices and behaviour at home and the farm
- 2 **Shop-along observations:** we accompanied consumers to monitor purchasing behaviour.
- 3 **In-depth interviewing:** we developed a topic guide to deeply understand food production, supply and consumption practices, health and nutrition knowledge and beliefs of consumers.
- 4 **Qualitative market scanning:** we surveyed the fruits and vegetables markets, the local kiosks and boutique stores which sell fresh and whole foods as well as packaged and branded foods and beverages, to understand the complete external landscape that our consumer is exposed to in terms of choices for purchase and consumption.
- 5 **Photo diaries:** we asked one representative from each target audience to describe their meals and we took photos as they were about to eat. They described 2 meals per day for a period of 4 days.

The target sample for this study comprised a total of 50 respondents: 30 household respondents, mainly young women and women of reproductive age, and 20 male and female farmers, who are being considered as food consumer and producers. The research questions for households focused on food purchase, food preparation, and consumption behaviours. On the other hand, for the farmers, in addition to

understanding food consumption, the research questions were focused on farming practices, challenges, and sources of information. At a general level, the study also aimed to understand personal motivations and aspirations that could be used to build relevance with the targeted consumers and farmers in Bungoma and Busia.



## What were the general findings obtained from the formative research?

### Motivations and anxieties around food production, purchasing and consumption among Kenyan consumers

In Kenya, consumers' understanding of healthy and balanced diets was determined by aspects of food components, diversity, foods' effects on the body, and hygiene.

Consumers defined a balanced diet as one that provides all nutrients including carbohydrates, proteins, vitamins, and minerals. Especially, they stated:

- › The diet includes fruits, fats, vegetables, but only a small portion of meat.
- › The diet serves to give energy, build the body and the immune system.
- › The food should be clean and well preserved.

*"I try to rotate the foods that I eat so that at least I get to eat a balanced diet. It has to be food that gives me energy to work and keeps me full."*

Youth, Busia

Home-cooked meals were preferred by the interviewed consumers because these were equated with trust, more taste and healthier food. A typical meal plate always included a starch. The most common starch consumed by the interviewees was *ugali* (firm maize meal paste). *Ugali* was generally consumed with either a vegetable or a protein.

The photo diaries showed that meals consumed were similar across all target audiences.

- › **Starches included:** rice, irish potatoes, sweet potatoes, green bananas, maize, noodles.
- › **Vegetables included:** *Sukuma wiki* (kales), *managu* (African nightshade), cabbage.
- › **Proteins included:** beans, *omena* (small dried fish), eggs, groundnuts.

Shopping areas for food items ranged from markets, shops, supermarkets up to farms. Open air markets, shops, and mini-supermarkets were the main shopping areas. Decisions around grocery shopping were primarily driven by good customer-trader relationships and accessibility of the store. Budgets and shopping lists were prepared to keep from overspending or to ensure proper spending. Due to budget constraints, pregnant and lactating women usually did not purchase or consume special food for their condition.

Family, friends and peers, and health practitioners were considered the most trusted sources of information regarding health and nutrition.



Figure 5: Women preparing "mandazi", orange fleshed sweet potato donuts, Bungoma



Figure 6: A woman threshing beans



## Aspirations and worries around food production among Kenyan farmers

The average small scale Kenyan farmer in Bungoma and Busia participates in the value chain of interest while also cultivating multiple crops and maintaining livestock. This both for consumption and for sale.

Women’s motivation in agriculture is to enable them to pay school fees for their children and for them to gain independence. Men’s motivation for farming involves passion and income source. Men view it as a viable business or employment. A majority of the farmers view farming as their main source of income contributing over 70% of their total household income.

*“It is both a lifestyle and source of earning a living. For example, when I harvested my fish recently, I got some money, and it helped me to bring electricity in my home. I spent about two hundred thousand Kenya Shillings which I got from the fish I sold. It is helping me to put up this house so to me it is a business.”*

*Fish farmer, Busia*

Climate change, characterized primarily by unreliable rainfall patterns in these regions, is mentioned as the most significant barrier to farming. Also, economic barriers were commonly mentioned in different variation, ranging from lack of capital to expand, to high costs of production.

Farmers’ main self-perceived advancements have been in the use of chemicals to control pests and diseases that attack their livestock and crops, farm practices, inputs, sales as well as personal finance.



Figure 8: Orange fleshed sweet potato crackies and donuts (maandazi)



Figure 7: Phanice, a vegetable farmer from Bungoma at her farm

Many farmers interviewed receive support from various bodies including private sector companies, the government as well as non-governmental organizations. Fish farmers emerge as the most under supported farmer group with only one respondent having received support.

Farmers appreciate associations and groups for idea sharing and peer-to-peer learning. 65% of the farmers were part of farmer associations and 30% of them were part of farmer cooperatives.

*“It is very important. It is important because, what I cannot do alone, we do it together, we put together ideas.”*

*ALV farmer, Busia*

The formative research found that farmers in Busia and Bungoma engaged three main media outlets (television, radio and mobile phone), with television being the most frequently accessed. Farmers interviewed aspired to cultivate various crops that had been advertised in the media, many being starches and fruits. The main driver was for profit, and other include provision, drought resistant varieties, unique crops in the region, and nutritious or health benefits.



## Why is a targeted social marketing campaign important?



Figure 9: A vegetable seller at the market in Bungoma

The formative research helped ascertain that apart from financial limitations, there are gaps between what the consumer knows 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:**

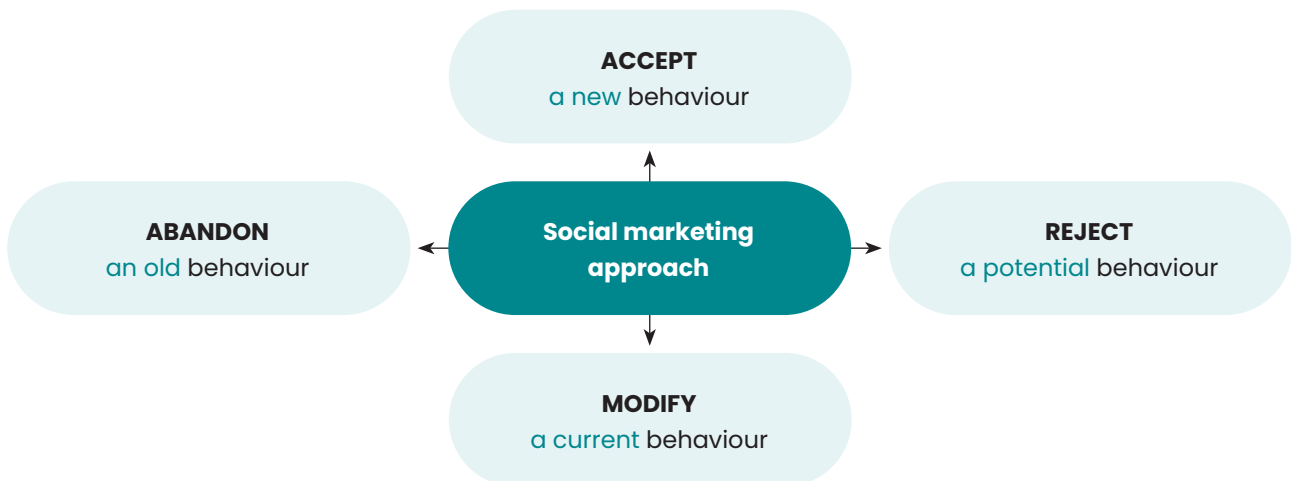


Figure 10: Four ways through which behaviour can be modified in a social marketing approach

## What did 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 Kenyan creative agency helped to design a branded and targeted social marketing campaign called *Tuelimike*, which means “Let us be informed”. *Tuelimike* used the campaign tagline *Chakula Bora, Maisha Bora* literally translating into “Healthy or nutritious food means a healthy or good life”. The campaign idea was rooted in the feeling of togetherness and brought out this feeling of “it takes a village”, or in this case “it takes a community”. Furthermore, *Tuelimike* not only inspired to work together for healthy and nutritious food, it also called for action, especially in combination with the tagline *Chakula Bora, Maisha Bora*.

The overall campaign idea *Tuelimike* spoke to each target segment differently with specific key messages conveyed through different channels. For instance, as *Lima vizuri* (farm well) for farmer-facing interventions specifically, *Ishi vizuri* (Live well) and *Kula vizuri* (Eat well) for the general population and *Kuwa vizuri* (Grow well) for mothers specifically. The first phase of this social marketing campaign lasted for 3 months.



Figure 11: Orange fleshed sweet potatoes, african leafy vegetables, poultry and fish are some of the Kenya-specific value chains in the NICE project



**The first phase of the NICE social marketing campaign comprised activations in four main settings:**



› **Market activations** consisting of a community roadshow wherein a skit was presented in a common market ground. The campaign’s key messages were woven into the skit and there was information for everyone to learn from.



› **Health facility activations** involving health education sessions held by clinic nurses and community health workers. “Mama Champions” shared their own experiences of adopting the desired behaviour, such as feeding practices for children and during pregnancy. Community health workers had the opportunity to demonstrate the different practices where possible. A NICE demonstration kit was also present, whereby an example of a market food stand displayed locally available nutritious foods.



› **Farmer activations** involving male and female farmers registered in local farmers’ cooperatives. Champion farmers spoke to a gathering of farmers in an interactive session and discussed the advantages and challenges of agroecological ways of farming and how to navigate these. The NICE demonstration kit was also present, with specific foods from the value chains that NICE would like to introduce.



› **School activations** targeting the youth in secondary schools (13–21 years old). The aim here was to create awareness on nutritious foods and healthy lifestyle, and to create a “farming is cool” type of trend for youth to consider a career in the agro-sector. The NICE demonstration food stall was presented as a useful and engaging tool for students to interact with food that is locally available and nutritious.

## Monitoring & evaluation of the social marketing campaign

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

Exposure to the *Tuelimike* social marketing campaign has contributed to several shifts in consumer attitudes that potentially will influence change in behaviour with time and given the right conditions. Some of the shifts noted include a change of perception on the meaning of “healthy foods” to not just food that prevent sickness but also food that makes one strong. Consumers associate “health” as used in healthy foods, with growth and immunity/not being prone to sickness.

When it comes to macro and micronutrients, there is relative increase in knowledge compared to baseline. More consumers are now able to make a connection between foods that provide specific macro and micronutrients. Notwithstanding over 90% of consumers express an interest in improving health and eating habits. This increase in interest is contributed by the positive response of those exposed to the social marketing campaign, and is an indication of the positive reception of the NICE project among the target communities.

Among the top 3 NICE project’s value chain foods consumers are willing to consumer or prepare for their families, are Managu (82%) Sageet (71%) and Fish (62%). Poultry and poultry products, groundnuts and especially Orange fleshed sweet potatoes (with only 41% incidence of mentions) are the least likely project value chain foods, to be consumed by consumers exposed to the campaign. Among potential constraints consumers face, to adopting learnings from the campaign, the “high cost of food” is the most common constraint, with 69% mentions.

On the farmers’ side, word of mouth (farmer to farmer/farmer groups) played a critical role in sparking initial awareness about the campaign while road shows and market events majorly served as knowledge and extension touch points with the NICE project



Figure 12: The advisory board and NICE Staff interacting with vegetable sellers at a market in Bungoma

team. Good agricultural practices and healthy nutrition are key messages a majority of farmers’ recall about the campaign.

There is notably increased knowledge on good agricultural practices (GAP) and nutrition sensitive farming practices that has led to high willingness to adopt learnings from the campaign.

There is renewed mindset on the approach to agricultural production and farming practices, based on the new knowledge acquired, and more farmers now understand what healthy foods are and the benefits of such foods. Farmers show willingness to share learning on GAP and healthy nutrition, indicating the practicability of the lessons learned from the *Tuelimike* campaign. However, there is a need to allocate more time and resources to both deepen and reinforce the campaign development agenda among farming communities as well as ensure uptake of recommended GAP and nutrition sensitive farming activities by addressing adoption barriers that threaten the adoption of the project’s recommendations to farmers. Such are prices of fertilizers and seeds, quality and prices of fingerlings as well as prices of poultry feeds among others.



## 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, for farmers, social marketing activities leverage the Farmers' Hubs as places where consumers can purchase nutritious value chains and become familiar with agroecological practices. Farmers will be motivated to role-model the consumption of nutritious foods produced in accordance with agroecological practices, as well as further encouraged to invest in saving a share of their produce for their own consumption. For consumers, a social marketing strategy will be launched at the health, education, and community sector level, and involve religious

leaders to help promote the consumption of nutritious foods. To ensure local ownership and sustainability of 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 families and youth in making small, yet effective, changes to their diets.

### Sources:

World Health Organization (WHO). WHO accelerates work on nutrition targets with new commitments [Internet]. 2021 [cited 2023 May 5]. Available from: <https://www.who.int/news/item/07-12-2021-who-accelerates-work-on-nutrition-targets-with-new-commitments>

United Nations Children's Fund (UNICEF). Nutrition, For Every Child - UNICEF Nutrition Strategy 2020-2030 [Internet]. 2020 [cited 2023 May 5]. Available from: <https://www.unicef.org/media/91741/file/UNICEF-Nutrition-Strategy-2020-2030-Brief.pdf>

FAO. Formative Research. FAO term portal. [Internet]. [cited 2023 Apr 11]. Available from: <https://www.fao.org/faoterm/viewentry/en/?entryId=162328>

International Social Marketing Association. What is Social Marketing? [Internet]. ISMA. 2013 [cited 2023 Apr 11]. Available from: <https://isocialmarketing.org/>

Home | Agroecology Knowledge Hub | Food and Agriculture Organization of the United Nations [Internet]. [cited 2023 Apr 11]. Available from: <http://www.fao.org/agroecology/home/en/>

Global Alliance for Improved Nutrition (GAIN). GAIN's Definition of Nutritious and Safe Foods. Geneva, Switzerland; 2021. Report No.: Briefing Paper #8.

Dalberg Research, Sight and Life. NICE Project - Final Report Formative Research in Kenya. 2023.

ClerkMaster Consulting. Report for Monitoring and Evaluation for Nutrition In City Ecosystems (NICE) project - Consumer Report. 2023.

ClerkMaster Consulting. Report for Monitoring and Evaluation for Nutrition In City Ecosystems (NICE) project - Farmers Report. 2023.

**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, and *Sight and Life* foundation.

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

[nice-nutrition.ch](https://nice-nutrition.ch)