



DISH Kenya

Bundled Solutions for Dietary Shifts



NUTRITION
CONNECT





DISH Background

Local and global diets urgently need to be transformed due to persistent hunger, malnourishment and the transgression of safe and just planetary boundaries.

Encouraging dietary shifts requires overcoming vested interests, as well as political, cultural, and regional differences. Solutions for dietary shifts therefore need to be actionable, agreeable and adapted to local circumstances and preferences.

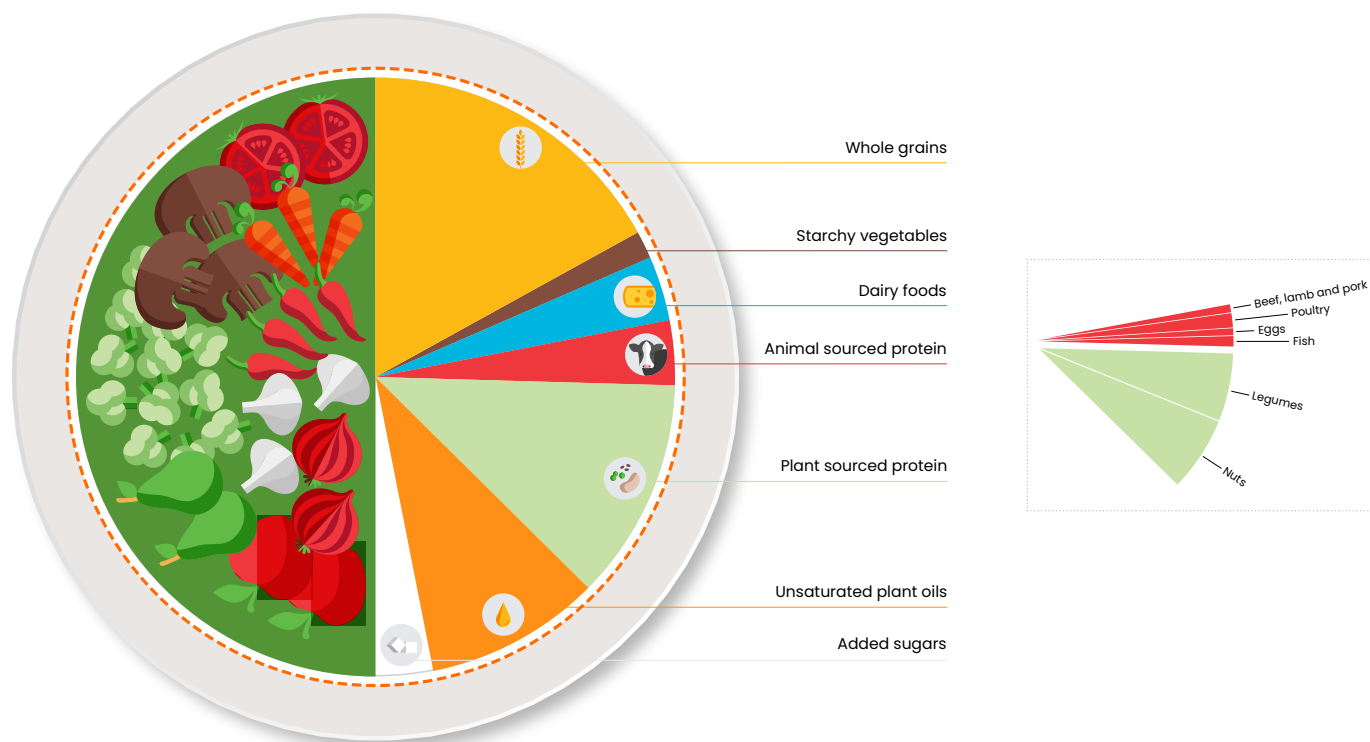


The groundbreaking 2019 report 'Food in the Anthropocene: the EAT–Lancet Commission on healthy diets from sustainable food systems' developed global scientific targets for such dietary shifts.

The commission found that it is possible to provide healthy diets for 10 billion people within planetary boundaries, but only by transforming what and how we produce and eat, while drastically reducing waste.

The healthy reference diet recommended by the EAT–Lancet Commission, commonly known as the Planetary Health Diet (PHD), outlined what sustainable and healthy food consumption looks like and allows for diversity based on cultural, regional and personal preferences. An updated version of the Planetary Health Diet is expected in the second half of 2025, when the EAT–Lancet Commission 2.0 publishes its report.

To help ground these recommendations into actionable, acceptable and context-based local solutions, EAT and the Global Alliance for Improved Nutrition (GAIN), supported by Food and Land Use Coalition (FOLU), partnered and launched the DISH project. The project focuses on the FOLU/ GAIN member countries Kenya and Indonesia, with the aim of sourcing the top 15 solutions in the two countries that addresses dietary shifts towards more healthy and sustainable diets.



The call for solutions competition in the fall of 2024 received more than 400 submissions in each country.

From there, a process of narrowing down to the top 15 took place via a set of criteria for eligibility. The selection of the 15 solutions happened through a competition process in the fall of 2024. With a set of competition criteria, and a jury of five local topic experts, the pool of more than 400 submissions in each country was narrowed down. The final 15 solutions were those who had the strongest pitch for shifting diets in line with the recommendations outlined in the PHD.

While solutions can have strong impacts on an individual level, shifting diets on a larger scale is a complex process, entailing many different stakeholders for a solution to reach a larger audience.

A key part of the DISH project was therefore to bring the top 15 solutions together in person to discuss how they could work together to strengthen their solutions. This process was called the “Deal Room”. Over two days, facilitated workshops and discussions brought together bundled groups with two to four solutions in each group.

In each bundled solution group, participants explored their individual and group challenges, the enabling factors for their bundled solutions, and developed a bundled solution proposal and presentation, addressing key dietary shift challenges in the country.

The DISH Competition expert judges and project team supported with their experience in the country context, knowledge on trends and conditions.



In Kenya, the outcome of the Deal Room were four bundled solutions:

01 Wellness Bridge:

Connecting rural smallholder indigenous vegetable farmers, from underserved communities, using traceability to improve production and consumption.



02 Sweet Snack:

Consortium of entrepreneurs that offer healthy, packaged snacks that are tasty and fun to eat, especially for children.



03 Lishe Market Place:

An online/offline marketplace that offers access to affordable indigenous foods such as vegetables, legumes and pulses, grains and cereals, and dried mushrooms, while practically demonstrating how to incorporate them into diets. The platform comes to life in an annual Food Justice and culture festival.

04 Lishe Bora Integrated Organics:

A youth-led agribusiness venture focused on an integrated farming model. This model integrates aquaculture, apiculture, and fruity and leafy vegetable production, leveraging a circular economy approach to maximise efficiency, reduce waste, and diversify income streams.



01

Wellness Bridge

Connecting rural smallholder indigenous vegetable farmers, from underserved communities, using traceability to improve production and consumption.



What is/are the dietary shift(s) that the bundled solution is addressing?

Improve the availability and consumption of local, indigenous vegetables.

What environmental issue does this idea or dietary shift solve?

Lower agrochemical inputs through agro-ecological and organic farming practices.

Which individual solutions were bundled?

Ripple Effect Kenya:

An NGO that supports farming activities for indigenous vegetables at 4K clubs at schools.

Thorium:

A track and trace app.

Nyumbani Greens:

A company that retails organic vegetables.

WFP/Positive Deviance:

Community based management of malnutrition.

What, specifically, will the solution bundle do?

Ripple Effect Kenya offers to small holder farmers agro-ecological climate-positive approaches (ACPA) that utilizes both regenerative farming practices such as compost making; liquid manure; minimum tillage; mulching; farm forestry (tree planting).

The curriculum is tailored for adults, but we want to develop child-friendly learning materials and engage children in practical application through the schools' kitchen gardens. Our organization works through farmer groups and already facilitates linkages to quality safe farm inputs.

We will also implement Positive Deviance Hearth, an approach that builds on caregivers' knowledge and skills to manage malnutrition using local

food based approaches through education, meal planning, and demonstrations on feeding. This targets caregivers of children below five years and pregnant and lactating women.

We will use the Thorium platform to showcase traceability for organic food production, connecting them with the small holder farmers who have been trained, while Nyumbani Greens can help sell the indigenous vegetables.

Why is the bundled solution more powerful than individual solutions?

This public-private partnership focuses on NGOs to support sustainable production and the private sector for marketing of indigenous vegetables. Hence, a bundled solution presents a systemic approach to tackling dietary shifts that is holistic right from the production of leafy vegetables through school clubs, to preparation of nutritious meals, to traceability, to a retailer that will buy the greens being produced. This way, our solution is sustainable.

To reach 1 million people, which channels does the solution use?

Wellness Bridge will work directly with 5000 people. To scale we can use the Thorium platform to sign up farmers who are producing organic indigenous vegetables and connect them to Nyumbani Greens. We will also use radio and TV shows to generate awareness and pass on knowledge and skills on choosing nutritious vegetables, meal planning, and producing sustainable indigenous vegetables.

Why would this solution appeal to 1 million people?

Organic farming and agroecology practices are demanded by consumers, who continue to be concerned about the use of harmful chemicals and quality of irrigation water. Our solution offers traceability in production and a trusted retailer to increase consumer confidence. The guaranteed retailing and traceability encourages farmers to adopt organic farming and agroecology practices because a market is assured.

What are the major cost drivers for this solution?

Training:

For 4K clubs and farmer groups on agro-ecological production; meal preparation activities and nutrition training to targeted caregivers, and lactating women.

Technology:

Covering the initial setup costs, including inputs, mobile phones to rural farmers, an annual subscription fee (USD 30 per farmer) to access the app.

Marketing and Logistics:

Transportation of products to Nyumbani Greens.

In the medium to long term, is the solution meant to be profitable, cost-neutral, or requiring outside funding?

Wellness Bridge at the onset will require full outside funding with 50% on training; 20% platform support; and 30% salaries. Due to the engagement of the private sector, Wellness Bridge in the medium term will generate revenue through the sales of vegetables and digital platform subscriptions.



02

Sweet Snacks

Consortium of entrepreneurs that offer healthy, packaged snacks for children that are tasty and fun to eat.



What is/are the dietary shift(s) that the bundled solution is addressing?

Snacks ingredients include: pearl millet, sorghum, orange flesh sweet potato, dried fruit (pineapple, mango and banana) and seeds (chia seeds and sunflower seeds) and natural sweetener (honey).

What environmental issue does this idea or dietary shift solve?

This solution will contribute to waste reduction through processing of fruits and starchy staples to reduce post harvest losses. We will source organically grown raw materials reducing the need for agrochemical inputs. We will also use eco-friendly packaging, specifically made from biodegradable materials that are toxin free.

Which individual solutions were bundled?

Child Fund Kenya:

Develops Orange Fleshed Sweet Potato (OFSP) crisps and chips. OFSP is rich with beta carotene, a precursor for Vitamin A, that is essential for children's body immunity, eye sight, and growth.

Iviani Farm:

Makes a dried snack from a mix of mango, pineapple and banana to provide essential vitamins and minerals for children.

TamuBoost Clusters:

Makes delicious, nutrient-packed snacks, called 'clusters'/balls, made from dehydrated mangoes and pineapples, combined with chia and sunflower seeds, with natural honey, to provide vitamins, fiber, and antioxidants.

I-Pop Africa:

Makes a Popped (puffed) snack using mixed grains like sorghum and millet. For a delightful taste it uses a unique twist of cinnamon and ginger that children will enjoy. This snack is higher in fiber, and offers protein and essential minerals.

What, specifically, will the solution bundle do?

Our basket of snacks offers a diversity of snacks, a different one each day, to break the monotony that comes with school feeding. The snacks are colorful, offer different textures and formats, a variety that children will enjoy. The plant-based and nutrient rich ingredients will help address the problem of malnutrition and micronutrient deficiencies among children. The products will be deployed at schools to children and available through retail networks.

The snacks can contribute to higher fiber intake, higher intakes of essential vitamins and minerals, and a good source of complex carbohydrates to give children sustained energy. It also provides a healthy source of essential fatty acids, such as omega 3 and mono-unsaturated fats, contained in chia seeds and sunflower seeds.

Why is the bundled solution more powerful than individual solutions?

Each of these small businesses will struggle with supply and distribution in the Kenya public school system, but as a consortium and by consolidating supply and product variety, they can better meet institutional demand.

To reach 1 million people, which channels does the solution use?

Schools, retail.

Why would this solution appeal to 1 million people?

School meals, if offered, can be monotonous and less nutritious. In some schools, meals are not guaranteed. Affordable healthy snacks can help address the nutrient gap by offering ready to eat snacks that kids will love.

What are the major cost drivers for this solution?

The eco-friendly packaging and distribution.

In the medium to long term, is the solution meant to be profitable, cost-neutral, or requiring outside funding?

The average cost of a school meal in Kenya is 23 KES. Right now our estimated snacks cost is 10 KES per serving/student.



03

Lishe Marketplace

An online/offline marketplace that offers access to affordable indigenous foods such as vegetables, legumes and pulses, grains and cereals, and dried mushrooms, while practically demonstrating how to incorporate them into diets. The platform comes to life in an annual Food Justice and culture festival.



What is/are the dietary shift(s) that the bundled solution is addressing?

Improving access to affordable indigenous plant-based foods, such as vegetables, legumes and pulses, grains and cereals, and dried mushrooms

What environmental issue does this idea or dietary shift solve?

The marketplace primarily sources from agro-ecologically/organically produced foods, but conventionally grown foods that follow Good Agricultural Practice will also be sold. We shall also utilize natural packaging in the marketplace, and avoid plastics.

Which individual solutions were bundled?

ZuriBites:

Online market for nutritious foods.

Nyakazi Greens:

A vendor of vegetables and dried mushrooms in the ZuriBites app.

Tofali Nutrition:

Food Justice and Culture Festival, where ZuriBites and its vendors can participate.

What, specifically, will the solution bundle do?

The Lishe Marketplace connects consumers with food producers, cutting out intermediaries like aggregators and wholesalers. The marketplace offers recipes and cooking shows so that healthy eating is relatable and rooted in local identity. The platform and its services are 'promoted' via a local festival that highlights sustainable production and local food culture.

Why is the bundled solution more powerful than individual solutions?

The solution brings together vendors operating physically (Nyakazi) and online (ZuriBites), showcasing their role in the food system by demonstrating their products—whether food items or the usability of technology like ZuriBites. Tofali Nutrition's festival serve as a grassroots platform to engage communities, showcase vendors' products, and demonstrate how the app can be used to create nutritious meals.

To reach 1 million people, which channels does the solution use?

The solution leverages a scale through mobile and web app, ZuriBites. Physical events further expand reach through community channels, i.e., schools, community organizations, and food advocates. Social media and digital campaigns amplify awareness.

Why would this solution appeal to 1 million people?

In Kenya, higher income consumers are seeking ways to return to their roots, but many of them have lost connections to the foods that symbolize tradition. Lishe Marketplace offers a practical, affordable, accessible and empowering way to incorporate indigenous, nutritious foods into their diets. Additionally, the local food festival helps to create a deeper sense of connection, nostalgia even, between the marketplace and the communities where it sources its foods.

What are the major cost drivers for this solution?

The major cost drivers for the Marketplace is marketing, such as venue rentals, event setup, and logistical coordination for hosting vendors and showcasing their products. Additional expenses involve organizing live cooking demonstrations to highlight the preparation of nutritious meals and the integration of technology like the ZuriBites app. Marketing and promotional efforts are also key cost factors, covering materials such as banners, flyers, and social media campaigns to attract attendees.



04

Lishe Bora Integrated Organics

A youth-led agribusiness venture focused on an integrated farming model. This model integrates aquaculture, apiculture, and fruity and leafy vegetable production, leveraging a circular economy approach to maximise efficiency, reduce waste, and diversify income streams.



What is/are the dietary shift(s) that the bundled solution is addressing?

This agribusiness is a production and supply-side intervention. It will support the availability of fish, honey, fruity and leafy vegetables.

What environmental issue does this idea or dietary shift solve?

Interconnected farming system that reuses waste water from aquaculture, and converts solid bio-waste into organic fertilizer for greenhouse vegetable production.

Which individual solutions were bundled?

Greenhouse farming:

Controlled environment farming for production of nutritious high-yielding fruity vegetables like tomatoes, colored capsicum and cucumber.

Vertical Farming:

Design affordable, space-saving, & productive vertical systems for urban farming for the sustainable production of healthy, leafy fresh produce.

Farmers' network space in education on e.g. aquaculture:

We network with farmers and communities in the sphere of livelihoods, promoting food security and education.

Aquaculture farming:

A circular farming system combining sustainable aquaculture and African indigenous vegetable farming to enhance food security.

What, specifically, will the solution bundle do?

We are connecting the aquaculture system to produce fish, greenhouses and vertical gardens to provide both fruit and vegetables, and apiculture for honey and bees as pollinators. Aquaculture wastewater is used to irrigate our crops, while the solid bio-waste from the system is used to make organic fertilizer which can be used in our model farm and sold when we have surplus, to other farmers.

Why is the bundled solution more powerful than individual solutions?

This circular economy approach creates efficiency in connecting outputs of fish production (waste water) to fruit and vegetables production and using apiculture as local pollinators. The project partners leverage their individual complementary activities to support each other's business in a cyclical model to diversify diets, promote sustainable practices.

To reach 1 million people, which channels does the solution use?

We will reach farmers, especially youth, via training using a model farm. Our customers are institutions e.g. schools, hospitals, prisons, commercial kitchens.

Why would this solution appeal to 1 million people?

We are increasing farmers' income by ensuring diversity in production. Farmers would adopt this solution for its efficient use of limited resources (water), and reduced dependence on external inputs like synthetic fertilizers and agrochemicals. For the customer, it offers a variety of organic, nutritious foods from a single farm source, at an affordable cost.

What are the major cost drivers for this solution?

The model farm to demonstrate the integration across the individual production systems. Other costs include outreach/marketing to farmers and clients. Certifications and accreditations at production levels (e.g., organic).

In the medium to long term, is the solution meant to be profitable, cost-neutral, or requiring outside funding?

This solution is profitable in the medium term; aquaculture, apiculture, requires a minimum of six months to start generating revenue, and vegetable farming requires a minimum of three months to generate revenue. In two seasons of the individual sectors, practicing farmers in the model farms will be cost-neutral. Thereafter, in the medium term, they will be profitable.





Conclusion and Next Steps

Dietary shifts on a large scale are complex, multi-level, long-term processes. Each of the four bundled solutions outlined above have the potential to influence dietary habits, health and sustainability in Kenya.

The next steps of DISH will focus on implementation. Some of the bundled solutions will move forward to a process of multistakeholder dialogues involving key stakeholders and implementing partners in the country.

With these dialogues, the solutions will have the opportunity to connect with partners, networks and key stakeholders in order to strengthen and plan for the further implementation of their solutions.

