PROJECT DISRUPT: Healthy diets on a healthy planet

"Which innovations can be game-changers in making affordable, safe & nutritious foods available in an environmentally sustainable way by 2030?"

The Challenge

Our current food system is in dire need of change. To enable resilient, affordable, safe, and nutritious diets for the current and growing global population while restoring and safeguarding our environment, we need to think and act out of the box. GAIN, the Alliance of Bioversity and CIAT, and EAT joined forces to conduct a three-stage Delphi study, to identify and investigate game-changing innovations for improving diets and restoring environments by 2030.

Interdisciplinary Work For Multi-Use Outcomes

The food system is the major driver of global environmental degradation as well as ill health and premature mortality. The way we produce, use, and dispose of our food contributes to climate change, land and soil degradation, biodiversity loss, and interferes with the global nitrogen and phosphorus cycles, amongst others. Despite this massive resource use, the food system is not meeting global nutritional requirements; almost a quarter of all children under 5 years of age are chronically undernourished and 1 in every 3 people is overweight or obese. Not one country is on course to meet all ten of the 2025 global nutrition targets and just 8 of 194 countries are on track to meet four targets. Progress in food systems is also deeply unfair, with the most vulnerable groups being most affected (Global Nutrition Report, 2020).

There is an urgent need to reimagine food systems and empower transformative solutions that address these interlinked issues together, while delivering healthy diets in an equitable way. To do this, project Disrupt used a set of 14 criteria to assess the potential impact of food system innovations (see Figure 1 and **criteria descriptions**).

Figure 1: Set of interdisciplinary criteria for exploring innovations









Diverse Expertise Leading To Exciting Ideas

A diverse panel of 52 experts (see **panel bio-book**) was engaged throughout the Delphi process. Experts in nutrition, the environment, food systems, economics, innovations and digital technologies, artists and journalists shared their experiences and perspectives from across the private and public sectors, the NGO and international development communities, as well as from universities and research centers around the world.

Grounding The Challenge In Real Life Settings

The research question was rooted in the concrete challenges of specific geographical contexts and food system settings. These included a semi-arid rural setting in Ethiopia, a tropical coastal setting in Mozambique and a tropical urban setting in Bangladesh (see **setting descriptions**). Many of the panelists live in or are from the three settings, while others were assigned to those settings based on their relevant international professional experience.

Figure 2: Grounded in three real-life settings: Ethiopia, Mozambique, and Bangladesh



Three-Stage Process

Project Disrupt used an adapted three-round Delphi study with a divergence round, convergence round and a detailing round. Over the course of the project - March through June of 2020 - panelists were invited to actively participate in the 3 rounds (Figure 3), each including a virtual discussion session (see **webinar slides and recordings**) followed by an online anonymized survey (see surveys) to capture the experts' input and insights. A final 4th webinar was facilitated by the research team, summarizing project results to date, reflections on the process and next steps and participants were invited to provide any additional thoughts and feedback in a 4th survey.

During the process, **an innovations catalogue** was built and elaborated on. The initial 85 innovations surfaced by the expert panel have a broad range of targets, involve various stakeholders, and benefit a diverse range of users. These included a combination of complementary types of solutions: technological solutions, nature-based solutions, policy/social approaches.

There is no single innovation that will fix the food system; multiple actions must be taken at different levels and aligned with broader societal challenges. This is reflected in a set of 20 focus innovations that act along the entire supply chain (Figure 4) and that were selected based on **expert scoring for the 14 criteria**. Figure 3: The three rounds of the Delphi process



Next steps Approaches for implementation





Projection - of sustainable and equitable pathways to a better world

A backcasting approach, which begins with a desired future position and imagines necessary steps to achieve it, was used. Experts were encouraged to think of possibilities, spillovers, barriers and trade-offs associated with uptake of identified solutions as they imagined optimal pathways for selected innovations to improve dietary and planetary potential by 2030 in Bangladesh, Ethiopia, and Mozambique.

Figure 5: The backcasting approach



Explore the different creative pathways in the innovation catalogue



Process Reflections - cross-pollination and moving forward

Thanks to the insightful contributions of the 52 experts, 85 innovations surfaced and detailing for a diverse set of 20 selected focus innovations that include technological, nature-based and policy/institutional solutions, was possible. Essential actions for transition pathways have been identified and will inform action strategies. The Delphi consensus-building methodology did not lead to unimaginable futures, rather it emphasized that existing technologies, when contextualized in place, and analyzed across environmental, health, and social impact criteria have significant potential for positive transformation.

Cross-pollination between experts, innovations, and context settings was a motivating benefit of the process and resulted in a constructive exchange of solutions. The process revealed that game-changing is also about portfolio-building, creating enabling environments, facilitating flexibility, and supporting interactions across the value chain.

This study is just the start of our collective exploration. The innovations surfaced and elaborated on here represent an initial selection of the potential innovation sphere and the study indicates that there is massive potential in the pipeline and many more innovations can be surfaced or elaborated on. Moreover, this exercise has no merit unless the ideas are taken up by food system actors, businesses and development partners and sufficiently resourced by both public and private sector actors to reach the scale necessary to truly transform our food systems – for better nutrition, better planetary health, and greater equity. "I was surprised by the wealth of information that was collected through the Delphi survey by engaging experts from different areas of study. I gained insights in innovations and areas that I have not been exposed to before."

"There are so many innovations out there - many overlapping - that we can connect to accelerate their growth and implementation."

"I really liked seeing that not everyone jumped to high-tech solutions. The most important thing will be to really understand what barriers lie in the pathways towards the large-scale integration of these innovations."

We welcome you to engage with us in this innovation space!

Via this link you can indicate if and how you would like to stay involved in the next steps, or contact us - Charlotte Pedersen (cpedersen@gainhealth.org) & Roseline Remans (r.remans@cgiar.org)