The Warren Centre
& Professor Ron Johnston

Humanitarian *Innovation* Hackathon

Food products in local markets are **vulnerable to price volatility,** a common problem in many low and middle-income countries[1]

Challenge D

Information, communication and technology and food commodity markets

Overview

Market fluctuations in food prices have a very large impact on profitability for smallholder farmers. Especially as many smallholder farmers have **long production cycles** for crops (from planting to harvesting) and base their farming decisions on farming common crops with expected prices, with little to no safety nets to buffer losses, such as savings or insurance.[2] The impacts of **price fluctuations** can plunge farmers into **debt** and **poverty.**

Many farmers lack access to information about the types of crops that could be grown, the best time to sell, and how to manage risk. Ready access to internet-connected mobile phones presents an opportunity for information systems to enable the best decision-making.

2 ZERO HUNGER

THE GLOBAL GOALS For Sustainable Development

SDG 2 End Hunger, achieve food security and improve nutrition and promote sustainable agriculture

Target 2.8 Ensure Stable Food Commodity Markets and Timely Access to Information

Adopt measures to ensure the proper functioning of food commodity markets and their derivatives and facilitate timely access to market information, including on food reserves, in order to help limit extreme food price volatility.

Challenge Task

Develop a concept for an information platform that farmers in low and middle-income countries could access to help them make the best choices about what crops to grow and when to sell them.

In your design, consider a particular region or group of countries, given the diversity of different country contexts.

2 ZERO HUNGER

THE GLOBAL GOALS
For Sustainable Development

Hackathon Challenge D

Information, communication and technology and food commodity markets

Overarching Challenge

Globally, hunger and food insecurity have shown a rapid increase since 2015, due to the combined impacts of the COVID-19 pandemic, conflict, climate change, and deepening inequalities.

In 2022, **9.2%** of the population (735 million people) were experiencing chronic hunger, and **2.4 billion** people faced moderate to severe food insecurity, which indicates the scale of the crisis.[3]

Overcoming hunger and malnutrition is critical to achieving sustainable development. People are not able to realise their full potential when suffering from hunger and/or malnutrition, as they are **more likely to get sick,** which further reduces their abilities to generate a livelihood.

Tackling global hunger is a complex process that requires cross-disciplinary teams to consider multi-dimensional approaches.

Considerations

In designing your zero hunger innovations, the principles of Humanitarian Engineering need to be employed. These principles can be summarised as solutions that are:

Effective
The desired change is logically achievable.

Affordable
Financially feasible for lower-income households or local business projects in low and middle-income countries (LMIC).

Appropriate
Wanted by the community and culturally acceptable within the regional context.

Sustainable
Consideration for how the innovation will be sustained into the future (e.g. public funding sources or market mechanisms).

Do no harm
The innovation considers inclusiveness and does not cause harm.

References

1. Food and Agricultural Organization (FAO), 2010, Policy Brief, *Price Volatility in Agricultural Markets*, **fao.org/economic/es-policybriefs/briefs-detail/en/?no_cache=1&uid=48900**
2. Global Panel on Agriculture and Food Systems for Nutrition, 2016, Food Price Volatility, **glopan.org/food-price-volatility**
3. United Nations, 2024, *SDG 2. Zero Hunger,* **un.org/sustainabledevelopment/hunger**