

The Warren Centre  
& Professor Ron Johnston

## Humanitarian Innovation Hackathon



# 500m

women and girls  
affected by anaemia  
worldwide

2  
ZERO  
HUNGER



**THE GLOBAL GOALS**  
For Sustainable Development

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

**Target 2.2** End All Forms of Malnutrition

By 2030, end all forms of malnutrition, including achieving by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons.

## Challenge A

Meeting the nutritional needs of women and girls to reduce anaemia

### Overview

Women and girls have specific nutritional needs, especially during menstruating years, pregnancy and post-partum. Deficiencies in iron intake due to inadequate diets, are one of the key contributing factors to high rates of anaemia in low and middle-income countries (LMIC).

Anaemia is a major global public health concern affecting an estimated **half a billion women** aged between 15 and 49 years.<sup>1</sup> **African** and **South East Asian** countries have the highest rates, particularly for rural and poorer households.<sup>2</sup> Addressing iron deficiency by improving diets is one solution, but there are complex considerations needed to ensure that any changes are affordable, accepted, and sustainable.

### Challenge Task

Develop a dietary change to meet the nutritional needs of women and girls in households in low and middle-income countries, specifically to reduce anaemia.

Given the range of diet and cultural considerations, setting your plan in a specific LMIC context with high rates of anaemia is recommended.

Find more at  
[bit.ly/hack-live](https://bit.ly/hack-live)



Humanitarian  
Innovation Awards

2  
ZERO  
HUNGER



THE GLOBAL GOALS  
For Sustainable Development

## Hackathon Challenge A

Meeting the nutritional needs of women and girls to reduce anaemia

### 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.<sup>3</sup>

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. World Health Organization (WHO), 2025, *Anemia fact sheet*, [who.int/news-room/fact-sheets/detail/anaemia](https://www.who.int/news-room/fact-sheets/detail/anaemia)
2. Kinyoki *et al.*, 2021, *Anemia prevalence in women of reproductive age in low- and middle-income countries between 2000 and 2018*, *Nature Medicine*, v.27, pp. 1761–1782, [nature.com/articles/s41591-021-01498-0](https://www.nature.com/articles/s41591-021-01498-0)
3. United Nations, 2024, *SDG 2. Zero Hunger*, [un.org/sustainabledevelopment/hunger](https://un.org/sustainabledevelopment/hunger)

Find more at  
[bit.ly/hack-live](https://bit.ly/hack-live)



Humanitarian  
Innovation Awards