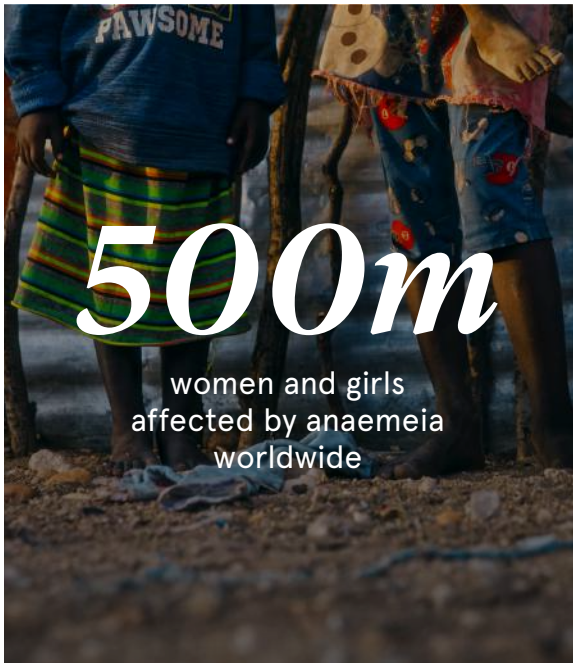
The Warren Centre
& Professor Ron Johnston

Humanitarian *Innovation* Hackathon



500m

women and girls affected by anaemeia worldwide

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.[1] **African** and **South East Asian** countries have the highest rates, particularly for rural and poorer households.[2] 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.

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 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.

2 ZERO HUNGER

THE GLOBAL GOALS
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Hackathon Challenge A

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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. World Health Organization (WHO), 2025, *Anemia fact sheet,* **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**
3. United Nations, 2024, *SDG 2. Zero Hunger,* **un.org/sustainabledevelopment/hunger**