

PRIORITISING SDGs

The FAMA project covers **several levels** (microbiome, consumer, food environment, public policy) and **several sectors** (research, civil society, private sector). It is intricately linked to several Sustainable Development Goals (SDGs) due to its comprehensive approach towards enhancing agricultural practices, food security, and sustainability.

Of major importance for public health, the project contributes to the fight for food and nutrition security (primarily SDGs 2 on “Zero hunger” and 3 on “Good health and well-being”). In addition, it aims to have a significant contribution to social inclusiveness, preservation of biodiversity, climate change mitigation, responsible production and consumption (SDGs 1, 12 and 13).

FAMA is also an example of strong partnership for the operationalisation and realisation of SDGs (including SDG 17 on partnerships).

The project was designed within the “**Transforming Food Systems and Agriculture through Research in Partnership with Africa**” (TSARA) initiative, which currently brings together 26 African and French research institutions, including:

- Agricultural Research Council (ARC)
- University of the Western Cape (UWC)
- University of Pretoria (UP)
- Université Cheikh Anta Diop University (UCAD)
- Centre de coopération internationale en recherche agronomique pour le développement (CIRAD)
- Institut national de la recherche agronomique (INRAE).

The FAMA project also builds on existing scientific collaboration among partners through previous projects and the **DSI-NRF Centre of Excellence in Food Security (CoE-FS)**.



UNIVERSITY of the
WESTERN CAPE

<https://initiative-tsara.org/en/>

foodsecurity.ac.za

www.uwc.co.za

PLANNED ACTIVITIES

FAMA is structured into three components:

Component 1:

- **Documentation of the link between the consumption of traditional African foods and gut microbiota:** literature review, consumer survey in areas of high and low consumption of traditional African foods, faecal samples analysis in South Africa, identification of the determinants of revalorisation of traditional African foods in Senegal.
- **Evaluation of the effect of traditional African foods on gut microbiota:** in vitro analyses with four traditional African plant-based foods on the microbiota (*Motoho*, bread with sorghum flour, amaranth, quick-cooking sorghum rice).

Component 2: Pilot actions with farmers and processors

- Map of the consumers' food environment to build a typology of vendors of traditional African foods.
- Identification of farmers' and agro-processing SMEs' constraints and opportunities to increase the supply of traditional African foods through focus group discussions.
- Pilot actions with selected farmers and agro-processors to sustainably grow and promote traditional African foods through the co-design of agroecological practices, training with women and young people, research and development on product formulation, nutritional and sensory analyses considering cost, image and convenience of food products.

Component 3: Policy dialogue and recommendations

- Diagnosis of the political, institutional and ideological landscape using policy review and semi-structured interviews.
- Policy dialogues to develop common narratives on traditional African foods and the links to nutritional health among a diversity of actors including governance actors.

A cross-cutting component is on project management, monitoring and evaluation, and communication.

FAMA
FOOD AND
MICROBIOTA
IN AFRICA




**AMBASSADE
DE FRANCE
EN AFRIQUE DU SUD,
AU LÉSO THO
ET AU MALAWI**
*Liberté
Égalité
Fraternité*

BACKGROUND

South Africa faces a **triple burden of malnutrition**, characterised by protein-energy deficiencies, micronutrient deficiencies (MND) and overweight/obesity. The demand for easy-to-prepare but less nutritionally dense food products is growing, in a context of rapid urbanisation and economic development. This leads to a **nutritional transition**, with energy-dense and nutrient-poor diets replacing traditional diets, more sedentary lifestyles, and reduced exposure to environmental and food microbial sources. Other sub-Saharan African countries, such as Senegal, face the same problem while having a wealth of traditional foods.

The risk is that sub-Saharan African countries experience an explosion of **diet-related non-communicable diseases (NCDs)** and a **depleted human gut microbiota**, with considerable consequences on public health costs, as in Europe.

Therefore, there is a **need to transform agri-food systems** to ensure that they provide sufficient, stable, safe and healthy food at an affordable cost. **Traditional African foods are increasingly considered a healthy alternative for African diets, similar to Mediterranean diets.** However, not all African foods are healthy and there is a need to document the potential of healthy, traditional African foods to **improve gut microbiota**.

In both South Africa and Senegal, some policies or political initiatives in favour of underutilised indigenous and traditional foods exist. They can be used as leverages to foster a policy shift towards the recognition of the role of traditional African foods in human health and to support food systems based on this type of foods.

PROJECT PARTNERS

The project research partners include institutions from South Africa, Senegal and Europe.

South Africa



Senegal



Europe



(Coordinator of the project)

In addition to the research partners, the project includes an NGO and an agro-processing enterprise:



The French Embassy supports the FAMA project, which is strongly in line with its strategy in South Africa. The project is financed under Fond Équipe France (FEF), from the French Ministry of Foreign Affairs.



OBJECTIVES

The **Food and Microbiota in Africa (FAMA)** project aims to **assess the role of traditional African foods in improving gut microbiota, and reducing the triple burden of malnutrition in South African and Senegalese populations.**

This long-term objective requires **co-building evidence between African and European research partners** regarding the use and consumption of traditional African foods to improve gut microbiota. Therefore, once the FAMA project concludes, food system actors will have improved knowledge and know-how about the health, environmental and socioeconomic benefits of traditional African foods.

In relation to the overall objective of fighting malnutrition, the project aims to contribute to:

- **Inclusiveness of food systems:** Income and employment generation for women and youth in traditional African foods chains
- **Resilience and sustainability of food systems in the context of climate change:** The introduction of traditional crops in cropping systems using climate-resilient and agroecological practices.

The focus of the project is on plant-based foods in South Africa, including fermented plant-based foods (*Motoho*, a local beverage based on fermented sorghum), products made from whole grain flour compared to refined flour (bread with sorghum flour), leafy vegetables (amaranth), and foods that are rich in resistant starch compared to those that are rapidly digestible.

FAMA FOOD AND MICROBIOTA IN AFRICA

