

FARM RADIO INTERNATIONAL
RADIOS RURALES INTERNATIONALES

IMPROVING NUTRITION
THROUGH INTERACTIVE RADIO

Popularizing highly-nutritious crops over the airwaves

Health and food security go hand in hand. Radio is a versatile tool to promote both at scale, not only supporting farmers to sustainably boost their productivity, but also to increase the quality and variety of food produced and eaten. Targeted radio and ICT initiatives can address nutritional deficiencies through radio programs that drive the uptake of specific highly-nutritious foods such as orange sweet potato and Quality Protein Maize. Other programs encourage the consumption of nutritious local indigenous vegetables, roots and cereals, or tackle post-harvest loss, while still more promote best practices and tackle myths around maternal health and nutrition.

THE PROBLEM

With proper nutrition and health, families and communities are able to reach their full potential. Yet almost one in four people in sub-Saharan Africa are undernourished, unable to consume enough food to meet their daily minimum daily energy requirements. This rise in hunger has been exacerbated in recent years by climate change, political instability and economic slowdowns[1].

Even when the quantity of food is sufficient, vulnerable groups can suffer from 'hidden hunger', micronutrient deficiencies that negatively affect their health, while also increasing their vulnerability to disease and disability. In other cases, post-harvest handling and storage results in a loss of nutrients, or unsafe food for consumption.

Undernutrition disproportionately affects the world's most vulnerable, particularly women and girls, further exacerbating the issue.

1 "The State of Food Security and Nutrition in the World", FAO, 2018.

OUR APPROACH

In order to improve nutrition across rural communities in sub-Saharan Africa we work closely with local broadcasters to create radio programs that enable listeners to make — and act on — informed choices about their health and nutrition. Working in partnership with trusted radio stations, we use radio to drive shifts toward healthy diets, the production of healthy foods, improved yields, and better post-harvest management[2]. We create radio programs that describe the nutrition and health benefits of particular foods, provide details on how to produce and market them, and practical guidance on preparing and consuming the foods. By sharing the voices of farmers and rural people who are making these decisions for themselves, we also jump start conversations aimed at changing norms around gender, food preparation, and household nutrition.

Promoting biofortified crops and nutrient-rich foods

Our interactive radio programs — including a popular radio drama called My Children — contributed to reduced vitamin A deficiency and protein-deficiency across sub-Saharan Africa. We partnered with research institutes that have developed biofortified crops to better meet the micronutritional needs of farmers — like our radio programming on orange sweet potato in Uganda and Quality Protein Maize in Ethiopia.

Promoting local foods and breastfeeding

Many of our programs promote nutritious local foods (such as teff, indigenous vegetables, or sorghum) and livestock (such as guinea fowl). We also know that maternal health goes hand-in-hand with nutrition. Our maternal, newborn, and child health initiatives in Burkina Faso promote best practices for establishing and continuing exclusive breastfeeding.

Reducing post-harvest loss and improving farming practices

By working with radio stations and farmers to spark discussion about food waste and good agricultural and marketing practices, we support producers in accessing and using technologies and practices that reduce the amount of food lost — like our programs supported by the Rockefeller Foundation on perishable tomatoes in Nigeria, maize storage in Tanzania and mango exports in Kenya.

Changing norms around household nutrition

By amplifying the voices of community members who have made changes in their nutrition habits, storytelling through radio dramas, or cooking shows that showcase familiar ways of cooking biofortified or nutrient-rich foods, we encourage individuals to make choices to improve their personal nutrition.

2 Our approach is informed by the EAT-Lancet's Commission on Healthy Diets From Sustainable Food Systems, 2019.

HIGHLIGHTS OF FRI'S WORK
IN IMPROVING NUTRITION



Promoting new crops:
An estimated 430,000 farmers in Burkina Faso, Ghana, Tanzania, and Uganda began to grow orange sweet potato (OSP) following participatory radio programs designed in consultation with farmers that explored why and how they should grow and consume the crop. The uptake was greatest in Tanzania, where our radio campaigns resulted in a **270% increase** in the number of farmers cultivating OSP.



Changing attitudes:
Translated into nine languages and broadcast on 13 stations in Uganda, the My Children radio drama took advantage of the widespread popularity of serial radio dramas to reinforce key messages about how and why families should grow and eat more nutritious foods, including orange sweet potato — all through a soap-opera style radio story.



Increasing demand:
The Nutritious Maize for Ethiopian Children project created awareness and demand for Quality Protein Maize. While farmer field schools, trainings, posters and other interventions reached 800,000 farmers in Ethiopia, radio programs were able to broadcast the same information across the entire maize growing region of Ethiopia — a reach of about **10 million farmers**.



Challenging myths:
Radio programs are challenging myths and misconceptions using dialogue around breastfeeding and promoting best practices for childhood nutrition through our newborn, child, and maternal health project in Burkina Faso.



Growing awareness:
Combining radio, comic books, farmer field schools and SMS messages, we encouraged the production of highly nutritious, but also marketable, beans in Tanzania. An estimated **128,500 farmers** started to use one or more of the bean cultivation practices promoted by the multi-media campaign.

OUR PARTNERS

Canada

IDRC | CRDI
International Development Research Centre
Centre de recherches pour le développement international

Bill & Melinda Gates foundation

WUSC EUMC

CIMMYT
International Maize and Wheat Improvement Center

HarvestPlus

The Rockefeller Foundation

FARMERS FIND GOOD HEALTH AND PROFIT IN NUTRITIOUS CROP

An estimated 430,000 more farmers are growing orange sweet potato following three-year radio initiative

For Angelina Peter Mlingwa, a mother of two in Tanzania, the health of her children is often at the front of her mind.

Vitamin A deficiency is widespread in sub-Saharan Africa. As many as 43 million children under age 5 are deficient in vitamin A. This form of malnutrition is the leading preventable cause of blindness, stunting, and reduces the ability to fight infections, putting children at much greater risk of illness and even death. Vitamin A deficiency also poses a health threat to pregnant women and new moms, as it contributes to maternal mortality and poor health outcomes during pregnancy and breastfeeding.

After one of Angelina's children was born, the baby failed to gain weight quickly, and Angelina herself often felt tired and dizzy. Radio programs on Radio Maria broadcast information about the nutrient and vitamin A-rich orange sweet potato (OSP), comparing it to the more popular, but less nutritious white sweet potato. Angelina started adding the orange tuber to a variety of foods around her house. She quickly saw the health of herself and her child improve.

The radio broadcasts were part of Farm Radio International's *Reducing vitamin A deficiency with orange sweet potato* project.

For Angela, radio programming encouraged her to add OSP to porridge, and use the tuber in recipes like chapatis, juice, pilau and mchanyato. She also learned how to prepare lands, and cut vines for sale from the radio programming. Today, she has a strong vine selling business, where she uses the proceeds to continue to improve the health and food security of her family.

Angela is not alone in profiting from the tuber. The rising popularity of OSP has also led to financial gain for other farmers and business people. Many individuals and groups have found profit in selling OSP vines or products. Interactive radio programs address supply issues by connecting sellers and consumers through integrated interactive voice response (IVR) platforms that forward callers the number of the nearest vine producer or OSP seller. Radio shows also profile growers on air, encouraging others nearby to take up the new practices.



Doris Zawor is a farmer and baker from Dzodze in the Volta Region of Ghana who learned about cooking with OSP on Fafaa FM. "Since I've started using OSP to make bread, many people are buying it."
She even sells the bread to stores in the area, helping contribute to the nutrition of her community.

RADIO GETS RESULTS

The R*educing vitamin A deficiency with orange-fleshed sweet potato* project promoted nutritious OSP across Ghana, Tanzania, Uganda, Burkina Faso, and Mali, including how to plant, grow, market, and cook with it. The project was funded by the Bill & Melinda Gates Foundation and implemented in partnership with Helen Keller International, the International Potato Centre, and Sweet Potato Action for Security and Health in Africa.









IN FOCUS

Creating demand for Quality Protein Maize

In Ethiopia, maize is increasingly the most important crop in terms of consumption and production[1]. But maize alone is not a good source of nutrition. Families who rely on conventional maize as the staple food in their diet are at risk of undernutrition, as they miss out on important proteins that maize lacks.

Infants and young children are especially at risk. Families face high rates of malnutrition, stunted growth and development. In Ethiopia, 38% of children under 5 years are stunted[2] — despite receiving the right amount of calories.

Quality Protein Maize (QPM), however, is a type of maize developed by CIMMYT, the International Maize and Wheat Improvement Centre, that contains nearly twice the amount of missing amino acids than in common varieties

Working with partners including CIMMYT, seed companies, and the Ethiopian Ministry of Agriculture, Farm Radio was tasked with spreading the word about QPM. With the aim of helping farming families to understand why they should seek out QPM seed — and supporting them in making the switch with information they need to know to grow the crop — we worked closely with partner radio stations to produce participatory radio programs on QPM.

We also added QPM cooking shows to our programming. Using entertaining formats, broadcasters visited a farmer's home, cooked with them and described the cooking process and recipes to listeners. We also featured recipes mixing maize with vegetables and pulses to encourage a greater diversity of diet.

Fentie Kebede, a farmer and member of the women's community listening group in the Bure woreda (district) in the Amhara Region of Ethiopia, said she didn't know the health benefits of QPM before listening to the radio program.

"After listening to this program, the whole issue became clear to me. Now, I know protein is critical for the health of mothers and children," she says. Sharing the voices of farmers who had already planted QPM was also key to encouraging others to take up the new maize.



"I have heard about the practical experiences of farmers who planted and consumed it. This is what I have learnt from the radio show. It has made me eager to plant [QPM] as soon as its distribution begins."

- Fentie Kebede

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1 "Achieving Food Security in Ethiopia by Promoting Productivity of Future World Food Tef: A Review," Abraham, 2015.

2 "Nutrition: Ethiopia," Unicef, https://www.unicef.org/ethiopia/nutrition

FARM RADIO INTERNATIONAL RADIOS RURALES INTERNATIONALES

We are a Canadian international non-governmental organization uniquely focused on improving the lives of rural Africans through the world's most accessible communications tool: radio. We produce radio resources that support thousands of broadcasters across sub-Saharan Africa in improving their programs for rural communities; run radio projects that help millions of people achieve better livelihoods and health outcomes; and pioneer radio innovations that feature the latest technologies to make rural radio even more powerful.

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Farm Radio International, a Canadian registered charity with regional offices and major projects in Burkina Faso, Ethiopia, Ghana, Kenya, Malawi, Mali, Nigeria, Tanzania,Senegal, and Uganda, is at the forefront of using radio combined with other ICTs to serve rural Africans. Charitable registration number (BN): 11888 4808 RR0001