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Redefining data collection to empower decision-makers to address malnutrition

Malnutrition is a challenge in Africa, and the limited availability of data about its severity makes it more difficult to address. Data gathering methods and frameworks are demonstrably inadequate, and failing infrastructure hinders effective data collection logistics.

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With simple mobile phone technology, surveys can be more dynamic and relevant.

75 youth-led enterprises adopt value addition in Uganda

ENABLE-TAAT has organized an in-depth mentorship and capacity development exercise benefitting 75 youth in Kalangala, Uganda. Many of the beneficiaries are enterprise owners at different levels in various value chains. The learning exercise aimed to inspire the youth to generate income through the various food commodities available under the Technologies for African Agricultural Transformation (TAAT) program. They would afterward scale their ideas, dreams, and businesses across Africa's agricultural sector.

Field activities during training in Kalangala.

This interaction covered seed multiplication, seed bulking, the practice of proper agronomic methods, and integrated pest and disease control management, with which the participants were already involved. However, many beneficiaries were more excited about value-addition activities such as baking donuts, daddies, crisps, and chapati using orange-fleshed sweet potato (OFSP). The prospect of making huge profits through value-added products increased the participants' enthusiasm.

They also learned to process sweet potato roots and vines into animal feed, usually discarded in farms. A few of them who have been practicing value addition were asked to share their success stories to motivate the participants.

The exercise concluded with participants learning to develop business plans for their agribusiness ventures. They created marketable ideas to address community challenges such as nutrition benefits and health values, processing, marketing strategies, and attitude changes, among others.

ENABLE-TAAT continues to provide mentorship for all the beneficiaries and facilitating linkage to funding using their business plans.

Participants in a breakout session discussing preferred commodities.

Got a story to share?

Please send your story with photos and captions every Tuesday to iita-news@cgiar.org or Katherine Lopez (k.lopez@cgiar.org) and Uzoma Agha (u.agha@cgiar.org) for headquarters and Western Africa, Catherine Njuguna (c.njuguna@cgiar.org) for Eastern and Southern Africa, and David Ngome (d.ngome@cgiar.org) for Central Africa.

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Researchers from IITA, the Alliance of Bioversity and CIAT, the University of California, Davis (UC-Davis), the Commonwealth Scientific and Industrial Research Organisation (CSIRO), and the Rwanda Agricultural Board have embarked on a project to address this challenge. The team is driven by a vision to empower people to eat healthily and live well. The Citizen-led Household Dietary Diversity Dynamics (Citizen H2D3) project redefines data collection through digital tools and big data. The team maintains that stakeholders cannot successfully tackle malnutrition without consistently monitoring individual diet quality patterns over space and time.

"As a Nigerian and a non-immigrant resident in Rwanda, my work and interactions have been an eye-opener regarding the realities of hunger, malnutrition, and food insecurity. Often, we are tempted to think that this is a challenge for specific countries or a specific continent like Africa. But anecdotal evidence suggests otherwise," says IITA Geospatial Data Scientist Julius Adewopo.

The team presented the project as one of the winning ideas at the 2020 Big Data Inspire Challenge. Their entry highlighted that current data on hunger and malnutrition are typically fragmented, static, and limited in scale or scope. In essence, the available data on nutrition broadly indicates what and how much people eat but does not provide spatially and temporally dynamic insights.

"What we are looking to do is move away from individuals or survey teams going into people's households, sitting down for two hours, asking them 100 questions, and people getting bored—it's expensive and invasive," says IITA Data Scientist Rhys Manners.

With full approval from the Rwandan Government, the project has commenced a pilot phase deployment in Rwanda. The team has embraced the simple and readily accessible mobile phone technology to achieve their goal—conducting surveys, using USSD codes and SMS to reach respondents, even in the country's remote areas. "So, just about anyone within Rwandan society can answer some questions on what they have eaten over the past 24 hours," Manners continues.

More than 10,000 randomly selected participants will be contacted across Rwanda every week, with the data from the first 1,800 stored. Participants answer 29 Yes-No questions of the Diet Quality Questionnaire on the consumption of different food items. After completion, participants receive 300 Rwandan Francs ($0.30) in phone credit. The survey will be deployed for six months, with new individuals contacted each week. Participants are selected to ensure a 50-50 response rate from men and women and spatially representative data. The survey frequency increases the data quality and usefulness to researchers in understanding how diet quality changes across time, regions, gender, socioeconomic groups, and age brackets.

"The hope is that we can show actual dynamics of diet quality across space and time, in anticipation that the information will support the development of relevant interventions to address malnourishment at certain periods and specific locations," says Manners. If the data shows that certain groups suffer malnourishment in a particular type of food during certain periods, then, "We can provide this information to the Rwandan government or extension organizations to have data-driven and informed policy development," he continues.

Citing Kofi Annan (2018), "Data can really help us end malnutrition across Africa," Adewopo believes that Citizen H2D3 will unlock insights that will move us closer to achieving this vision not just in Africa but globally.

Caption here

Take responsibility! Stop the spread of COVID-19!

Always clean your hands; practice physical and social distancing; wear face masks properly; avoid crowds and public places; keep a 2-meter distance from the next person; and practice general sanitation and hygiene.

Assistant Director, President's Office, praises IITA research in Tanzania

The Assistant Director for Technical Cooperation at the President's Office, Public Service Management (POPSM), Mr Msafiri Marwa, has commended IITA Tanzania for its research efforts in transforming agriculture in Tanzania. Msafiri said this when he led a POPSM delegation to IITA-Eastern Africa hub offices in July in Mikocheni, Dar es salaam.

Top: The POPSM delegation toured IITA facilities, including the microbiology laboratory and the IITA Youth Center. Bottom: IITA-Eastern Africa Hub Director Leena Tripathi and Mr Msafiri Marwa (front row, second and third from left) with IITA and POPSM teams.

The objective of the visit was to familiarize themselves with IITA activities, including capacity building and technology transfer efforts for local experts and researchers, given that POPSM has been issuing work permits to IITA over the years.

The team was welcomed by the Hub Director, Leena Tripathi; the hub Head of Finance and Administration, Eveline Odiambo; and other senior staff. The visiting team was briefed on IITA activities in Tanzania and held meetings with staff to learn about their experiences working at the Institute. The visitors also met with the administration team to discuss work permit processes.

The visitors also toured IITA research facilities in Dar es Salaam starting with the laboratories. Frederick Baijukya, the Africa Cassava Agronomy Initiative (ACAI) Country Coordinator, and his team demonstrated the AKILIMO app, a smartphone mobile application that provides site-specific recommendations for cassava growing. Baijukya also explained about the Afya soil test Kits, a simplified, affordable, and portable soil test as an alternative to costly laboratories that can analyze important nutrients like soil pH, total nitrogen (N), Organic carbon (OC), and Phosphorus (P).

At the microbiology laboratory, IITA Research Technician Massoud Amour, explained how to control whitefly, a vector for cassava viruses, using biopesticides and essential oils as part of bio-based strategies for vector control.

They also toured the IITA Youth Center at Kwembe, where they saw the Tanzania Youth Agripreneurs Program activities, including cassava processing area, fish and rabbit farming, poultry farming, and animal feed production.

Msafiri said he was impressed with the range of activities that IITA was involved in. He pointed out he was especially impressed by IITA's efforts to build young people's capacity to engage in science and agribusiness.

"You are doing excellent work that is very important to farmers; I especially like that you are empowering youth to engage in agribusiness. This change of mindsets will lift our youth out of unemployment and poverty," said Marwa.

The Office of the President, Public Service Management Office, is a vital department for IITA's work. It coordinates the registration of international organizations in Tanzania and issues work permits to international staff and exemptions. IITA is currently working on renewing its MoU with the government facilitated by the Ministry of Agriculture.

IITA kicks off project to transform livelihoods and conservation

IITA has commenced a 3-year participatory research project to identify transformative approaches to indigenous women and young people's engagement in integrated livelihood and conservation initiatives. The project titled "Transformative approaches to livelihood and conservation: Learning from indigenous women and youth—IWY (TALC)" aims to investigate the impact of existing livelihood and conservation efforts on indigenous forest-dependent women and youth (Baka and Bagyeli) in the North of the Dja Reserve and around Kribi, Cameroon.The project's findings will support forest-dependent women and youth in developing desirable and sustainable initiatives by themselves.

Top: Forest-dependent women and youth collecting traditional medicines in Bifalone.
Bottom: Collecting wild mushrooms in Kompia.

In its approach, the project will assess past and ongoing livelihoods and conservation projects in the selected areas to highlight the impact of former and current integrated initiatives on the lives of IWY within the indigenous community in Cameroon. It will also consider the barriers to the full participation of IWY in these initiatives, examine the options to overcome them, and explore the mechanisms, tools, and conditions that have been successful at encouraging robust participation in these initiatives.

In addition, the project will support the development of ongoing actions based on IWY inspirations as it tests and assesses the research findings. These findings will be translated into communication, exchanges, and dissemination through a Community of Practice (CoP). The CoP will include organizations involved in biodiversity conservation and poverty reduction in Cameroon, donors, local and international development practitioners, and local and national government representatives.

According to TALC Project Manager Masso Cargele, the project is a participatory and reflexive operation that takes an action-research approach. "It will combine conceptual and empirical approaches and quantitative and qualitative research to produce both context-based and generic results and recommendations. Researchers from various disciplines will work closely with indigenous women and youth (IWY). This mixed approach will produce results for end-users and strong learning processes," he said.

One of the main results of TALC is to develop guidelines to improve the implementation of projects that involved IWY through transformative projects that produce subsequent impacts on IWY livelihoods and conservation.

Gender equality can boost food security through sustainable systems

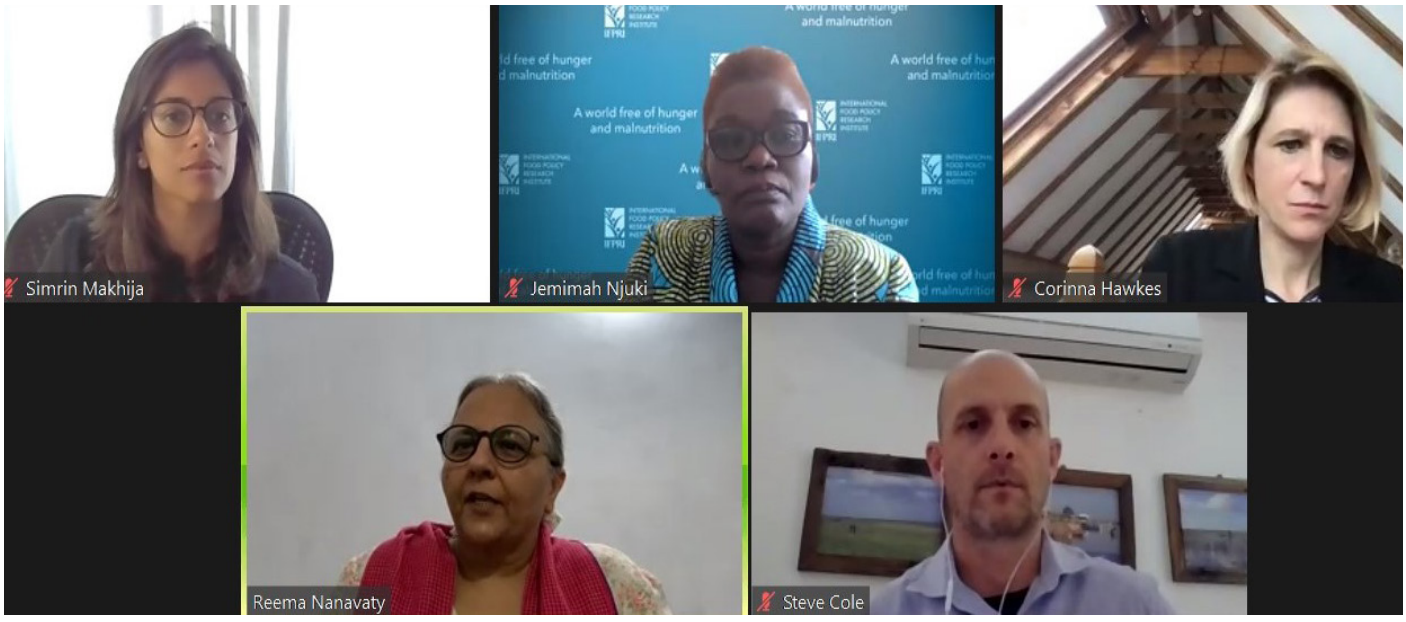
The International Food Policy Research Institute (IFPRI) researchers had adopted a scoping review in a recently published United Nations Food Systems Summit (UNFSS) brief to assess the current evidence on pathways between gender equality, women's empowerment, and food systems. Achieving gender equality and women's empowerment in food systems can result in greater food security and better nutrition, and a more just, resilient, and sustainable food system for all. Hence, in July, IFPRI and the Self Employed Women's Association (SEWA) organized a UNFSS side event webinar to present the main findings of the brief and get insights from a group of panelists on the way forward. Simrin Makhija, Program Manager at IFPRI, moderated the session.

Prof Kaosar Afsana, Professor at James P Grant School of Public Health (JPGSPH), BRAC University, and member of the UNFSS Science Group, gave the opening remark. She mentioned that gender equality had drawn specific attention to Sustainable Development Goals (SDGs). Women are central to development, contributing to improved nutrition status and food security in small and large areas. Although women have been denied rights and access to resources due to deep-rooted social, political, economic, and cultural systems developed over the years, social movements and research evidence leading to positive decisions are causing a slow change in structural issues. "Hence the need to embrace SDGs to transform the society, establish equal rights and access of women to basic amenities along with men and the marginalized people across the world," she said.

IFPRI Director in Africa, Dr Jemimah Njuki, presented the key findings from the UNFSS brief on gender, women empowerment, and food systems. She mentioned that unequal access to important resources in food systems had undermined women's empowerment and productivity. "Transforming food systems equitably require changes in gender equality at individual and systematic levels as well as formal and informal levels," she said.

Panelist and IITA Senior Scientist and Gender Specialist Steven Cole stated that gender power relations create a range of social inequalities and disempower women who work for and depend on food systems to secure their livelihood. He cited evidence from the research showing that one important solution to fixing food systems is transforming gender power relations. Through investment, food system actors can promote positive and equal gender norms for women and men to participate in and equally benefit from food systems. Cole added that women and men should resolve unequal power relations because of the disadvantages created for women due to inequality. "Using the information from this review, a transdisciplinary committee can create interventions that engage women and men to address unequal power relations and challenge oppressive norms, behaviors, and structures," he said.

As highlighted by all the speakers, Senior Research Fellow at IFPRI, Dr Ruth Meinzen-Dick, re-emphasized the need for research and development efforts to go hand-in-hand with tackling restrictive norms and power relations. It is not just about uncovering the root causes of gender equality but the need to work together to create opportunities for women and men stakeholders to make norms and systems more equal. "I hope this session becomes a rally and cry for researchers and development action to go hand-in-hand to deliver a more just and equitable food system for all," she said.



Session panelists discussing key findings from the UNFSS brief.