

## PHD PROGRAM OF BMEL

### Project ICRAFS: Impact of COVID-19 and Russia's War Against Ukraine on Agricultural Commodities Trade and Food Security in Sub-Saharan Africa

<b>Country/Countries</b>	Nigeria and Togo
<b>Funding Agency</b>	Federal Ministry of Food and Agriculture – BMEL
<b>Project Management</b>	Federal Office for Agriculture and Food – BLE
<b>Project Coordinator</b>	Leibniz Institute for Agricultural Development in Transition Economies (IAMO), Prof. Dr. Dr. h.c. mult. Thomas Glauben; Prof. Dr. Osama Ahmed
<b>Project Partner(s)</b>	University of Nigeria, Nsukka (UNN), Faculty of Agriculture and Department of Agricultural Economics  University of Lome (Togo), Higher School of Agronomy, Department of Agricultural Economics
<b>Project Budget</b>	162.907,80 €
<b>Project Duration</b>	07.11.2023 - 06.11.2026

<b>Keywords</b>	Climate change, COVID-19 pandemic, Russia's war against Ukraine, interrupted grain and agriculture imports, food security, farmers' livelihoods, climate-smart farming practices, sustainable food systems
<b>Background</b>	<p>Considerable efforts are being made worldwide to meet sustainable agricultural development and related Sustainable Development Goals (SDGs), which are indispensable for the well-being of current and future generations. Notwithstanding the commitment of all countries worldwide to achieving these objectives, they are being increasingly confronted with major natural, environmental, social, societal, and anthropogenic constraints. One of these constraints caused by natural climate variability and anthropogenic actions is the impact of climate change. Climate threats are still relevant and the impacts of climate change on agriculture, farm productivity, food systems, and food security are becoming increasingly visible and of great concern worldwide, especially in Sub-Saharan Africa (SSA). The COVID-19 pandemic along with stringent lockdown policies is another constraint likely to reverse many of the efforts and successes achieved in alleviating poverty and reducing food insecurity, particularly in SSA. The ongoing war in Ukraine may affect the agricultural sectors and the food and nutritional security of import-dependent countries such as SSA, which rely heavily on Russian and Ukrainian grain and farm inputs. The consequences of all these constraints are expected to be considerable in developing countries, particularly in SSA, due to their heavy dependence on agriculture, which plays a vital role in their economies.</p> <p>The ICRAFS project is therefore designed to fill knowledge gaps related to the impact of climate change, the COVID-19 pandemic with the lockdown policies, the war in Ukraine on food systems and food security in SSA.</p>
<b>Objectives</b>	<p>The main objective of the ICRAFS project is to evaluate the impact of extreme events and multiple crises (such as climate change, the COVID-19 pandemic with the lockdown policies, the war in Ukraine, etc.) on food security in SSA. Specifically, the project proposes to assess the impact of COVID-19 on agricultural input use, farm production and productivity, income, food security, and well-being of smallholder farmers in Nigeria and Togo. In addition, the implications of Russia's interruption of agriculture imports due to the war in Ukraine will be analyzed in terms of grain and farm inputs price volatility, as well as its impact on food security in Nigeria and Togo. Furthermore, the extent to which emerging climate-smart farming practices have an impact on crop yields, livelihoods, and the well-being of agricultural producers in Senegal will be evaluated. Appropriate statistical and econometric methods taking into account the different components of the One-Health concept will be applied to achieve the project's specific objectives.</p>

**Short description**

The current extreme events such as climate change, the COVID-19 pandemic, and the ongoing war in Ukraine revealed the vulnerability of various food systems and global food security. This highlights the need for coordinated action across sectors to prevent food system disruptions and thus improve healthy diets. As a result, the demand for sustainable and resilient food systems at the global, regional, and national levels become extremely important. In this context, the ICRAFS project proposes to (i) evaluate the impact of the COVID-19 outbreak along with lockdown policies on food security and other potential outcomes of smallholder farmers; (ii) analyze the relationship between Russia's disruption of grain and agricultural input imports due to the war against Ukraine and price volatility and food insecurity in SSA, and finally (iii) assess the impact of adopting climate-smart farming practices on farmers' returns, livelihoods, and well-being. Appropriate statistical and econometric methods taking into account the different components of the One-Health concept will be applied to achieve the project's specific objectives. The project activities focus on SSA, especially Nigeria, Togo, and Senegal, their agriculture in response to climate change, and their interactions with Russia and the rest of the world in terms of international trade in grain and other agricultural commodities. The project contributes to the One Health debate in food systems by providing a critical understanding of the relationship between these current events and crises, as well as empirically assessing their impacts on food security in Nigeria and Togo. Furthermore, studying the impact of climate-smart farming practices adoption on agricultural production and productivity in Senegal will allow us to gain insight into the interaction between environmental changes and farm management for sustainable agricultural development. Scientific cooperation between Germany and sub-Saharan African countries such as Togo and Nigeria in the field of agriculture, food systems, improving smallholder farmers' livelihoods, food security, and sustainable agricultural development will be promoted. The project will support participatory approaches in which innovative systemic solutions are developed to improve the sustainability of food systems. In terms of policy implications, the project results will be useful for decision-makers in agriculture and other stakeholders in improving food security through sustainable food systems in SSA. In addition, the results will contribute to improving agricultural policies in the area of strengthening the climatic and socio-economic resilience of smallholder farmers in SSA to achieve sustainable agricultural development and related sustainable development goals. National and international stakeholders such as researchers, agricultural policymakers, experts, development partners, farmers, and students will benefit from ICRAFS project findings through conferences and workshop participation. The scientific results of the project will be summarized in a doctoral thesis. Publications in peer-reviewed scientific journals are also planned. Policy briefs, and other materials for results transfer and knowledge dissemination for contribution to improving agricultural policies will be developed.