



Strengthening capacity in Africa to meet pesticide export requirements

This project aimed to improve capacity of selected African countries to meet pesticide-related export requirements based on international (Codex) standards through extensive capacity building in both the field and laboratory.

A result story on the project is available [here](#). A news release by IR-4/Rutgers University is available [here](#).

This project was recently evaluated by an independent evaluation team. Find out more about the evaluation and its findings [here](#).

STDF/PG/359

Status

Completed

Start Date

01/05/2013

End Date

30/04/2017

Project Value (US\$)

\$1,064,450

STDF Contribution (US\$)

\$446,150

Beneficiaries

Ghana
Kenya
Senegal
Tanzania
Uganda

Implementing Entities

African Union Interafrican Bureau for Animal Resources (AU-IBAR)

Partners

Food and Agriculture Organization of the United Nations (FAO)
Governments of Ghana, Kenya, Senegal, Tanzania and Uganda
Rutgers, The State University of New Jersey, USA
USDA Foreign Agricultural Service

Background

Pesticide residue data needed to establish Codex Maximum Residue Levels (MRLs) are almost exclusively generated in industrialized countries. Data are very rarely generated in developing countries and, therefore, few Codex MRLs are established for minor-use crops (crops of low pesticide usage on a global scale, often termed "specialty crops" or minor crops), such as tropical fruits grown in developing countries. Where MRLs do not exist, exporters often face challenges to reach export markets. If MRLs do not reflect the actual pesticide use patterns where the crops are grown, then pests will not be controlled effectively.

This project helped selected African countries to generate residue data in order to facilitate the registration of new crop protection tools, inform the establishment of MRLs, and boost international trade. The focus was on low-risk pesticides and tropical fruits. Government authorities in five African countries (Ghana, Kenya, Senegal, Tanzania and Uganda) collaborated with each other, the private sector and international partners to conduct coordinated and complementary pesticide residue studies. Skills and experiences gained enabled African countries to expand and prioritize their residue programmes, to address proactively emerging pest control needs, and to comply with international food safety standards.

This project was part of a global MRL initiative to enhance market access for specialty crops, with complementary STDF-funded projects in [Latin America](#) and [ASEAN Member States](#). Together these three projects stimulated the creation of the Global Minor Use Foundation, which continues to build on the results of these projects. The work of the three regional STDF projects was recognized in a Joint Statement at the 11th WTO Ministerial Conference (Buenos Aires, December 2017) by Ministers from 17 countries.

Results

Improved technical expertise in African countries to generate, review and interpret pesticide residue data

The project established training programmes and developed capacity of national residue study teams to conduct supervised residue trials. The programme focused on training in both the field and laboratory based on the principles of Good Laboratory Practices (GLPs). Upon completion of this project, study teams (laboratory, field trial experts, others) had improved their ability to conduct new residue studies as part of national pesticide registration processes.

Increased participation of African countries in setting Codex MRLs

A major component of this project was to harmonize MRLs in accordance with international standards to improve market access for agricultural products. This was achieved through a process facilitating the establishment and implementation of Codex MRLs for minor-use crops. Seven residue studies were implemented that could support new Codex MRLs for the commodities selected. The studies used a very low-risk test pesticide (sulfoxaflor), focused on mango. All five countries shared work on this pesticide/crop combination: Senegal (1 trial), Ghana (2 trials), Tanzania (1 trial), Uganda (1 trial), and Kenya (2 trials).

Efficacy trials in three countries will be completed in 2018 to enable national registration of the compound. Upon completion of the studies, the residue data generated can be packaged and submitted to Codex to support the establishment of MRLs. Participating countries received guidance on how to nominate their pesticide/commodity to be placed on the FAO/WHO Joint Meeting on Pesticide Residues (JMPPR) review schedule, how to prepare and package the data submission, and how to best coordinate efforts with other countries.

More efficient use of available resources through enhanced collaboration

The project established and implemented a new collaborative approach for pesticide data generation and exchange within African countries, based on public-private partnerships and regional cooperation. This is expected to result in an increasingly efficient use of resources. In order to improve cost-effectiveness and avoid duplication of efforts, the project facilitated collaboration among selected national SPS authorities and the private sector (including a multinational pesticide manufacturer, local agricultural commodity export organizations, industry associations and farmers). A regional minor-use expert group, comprising public and private sector partners met regularly to discuss and develop solutions on regional minor-use issues, and identify and prioritize pesticide and MRL needs. This prioritization enabled countries to develop strategies to maximize outputs by dividing work, resources and responsibilities to generate necessary residue data. The cost-saving of collaborative versus individual generation of data is estimated to be over 90%.

Improved environmental and consumer safety through upgraded crop protection tools

While second and third generation pesticides are being phased out by developed countries due to human and environmental risks, farmers in developing countries often continue to use these chemicals because of the lack of international MRLs based on newer, safer (less toxic) pesticides for their specialty crops. Due to this situation, farmers are limited in their crop protection tools (continued use of more toxic chemicals) resulting in economic loss (restricted market access), lower crop productivity

(increased rate of pest resistance), and negative impacts on environmental, worker, and consumer safety. This project helped to resolve these issues, with additional benefits for agricultural productivity, environmental safety and consumer safety.

Enhanced market access for specialty crops

Developing countries frequently encounter market access obstacles due to insufficient international trade standards for minor-use crops. By developing a process to facilitate the establishment of Codex MRLs for minor-use crops of economic importance to African countries, this project enhanced the ability of producers in developing countries to access important export markets. The project will deliver its full benefits once the new Codex MRLs are established.

Recommendations

Selection of pesticide-crop combinations

Before selecting pesticide-crop combinations for field trials, there should be close collaboration and firm commitment among all stakeholders, including the pesticide manufacturers, the pesticide registration authority, and the participants in field trial studies. This, alongside with competent personnel and adequate equipment, is necessary to ensure that the assigned residue trials are carried out swiftly and correctly.

Open and ongoing dialogue to ensure private sector buy-in

In Africa it was more challenging than in Asia and Latin America to obtain firm commitment from multinational pesticide companies to participate in the project and provide chemicals for the field trials. In Africa, concerns about the expected costs and benefits for the private sector, as well as the lack of mutual recognition of efficacy data across countries, emerged as challenges that made it more difficult to get private sector commitment. These experiences highlighted the importance of early and ongoing dialogue to confirm and re-affirm the role and contribution of pesticide manufacturers.

Shaping regional recognition of efficacy data

Inadequate mutual recognition of efficacy data between countries caused challenges and delays in implementation of the regional project in Africa. Regional consultations between governments and with the private sector – including a series of technical meetings and workshops – helped to clarify issues related to harmonization/mutual recognition of efficacy, residue, registration and labelling requirements. Experiences under the project highlighted that Regional Economic Communities (RECs) can play an important role in this regard.

Laboratory capacity

Experiences in project implementation pointed to the need to carefully assess laboratory capacities to identify and effectively address gaps faced. Adequate laboratory capacities are crucial to ensure the analytical phase of projects focused on pesticide residue studies can be completed successfully.

Building on the project's results to strengthen Public-Private and Public-Public Partnerships

Experiences and results under the project highlighted the benefits of public-private collaboration to inform and support Codex work. Moving forward, the project partners and countries involved are encouraged to build on this collaboration to further support the participation of African governments in Codex processes, including the Codex Committee on Pesticide Residues.

The project built capacity, knowledge and skills among government agencies in the five participating countries. Future efforts should capitalize and build on this knowledge to support and guide future work on pesticide data generation on the continent. For instance, future projects related to data generation should utilize these capacities, for example through mentoring arrangements.