

Online Dialogue

Innovation Shaping the Future of Agriculture and Safe Trade: Learnings from Pesticide Management in Asia and the Pacific

Date: 29th October 2025

Time: 10:00 to 11:15am (CET)

Quick recap

The meeting focused on public-private partnerships and their role in promoting food safety and trade facilitation through innovative approaches to pesticide management in Asia and the Pacific. Panelists discussed the challenges and opportunities around biological pest control, including regulatory harmonization, farmer adoption, and the importance of multi-stakeholder collaboration. The discussion highlighted successful initiatives in biopesticide development and regulation, with emphasis on the role of small and medium-sized enterprises in driving innovation and the establishment of platforms for knowledge exchange among practitioners and policymakers.

Summary

PPPs for Food Safety and Trade

Peter Donelan, the Acting Deputy Head of the Standards and Trade Development Facility (STDF), introduced the online dialogue on public-private partnerships (PPPs) and their role in promoting food safety and trade facilitation. He highlighted the challenges posed by elevated pesticide residues in Asia and the Pacific, emphasizing the importance of innovative PPPs in addressing these issues. Peter explained the STDF's mission and recent projects, including a regional biopesticide initiative led by APAARI, which successfully harmonized regulations across eight countries and established a community of practice. The event, co-organized by STDF, CropLife International, and APAARI, aimed to showcase innovations and partnerships that strengthen pesticide management for safe trade across Asia and the Pacific.

Biopesticides: Challenges and Solutions

Delisa Jiang, Sustainable Pesticide Management Framework, CropLife International presented on biologicals in agriculture, highlighting their growing use globally but noting challenges in Asia, particularly around regulation, adoption, and innovation. She explained that biopesticides are often used in combination with chemical pesticides as part of integrated pest management (IPM) strategies, which help reduce pest resistance and environmental impact. Delisa detailed efforts to address these challenges, including regulatory capacity building in Vietnam and harmonization initiatives at the ASEAN level, as well as practical examples of IPM implementation for pests like fall armyworm and desert locusts. She emphasized that successful biopesticide use requires a multi-stakeholder approach involving farmers, governments, the private sector, and research agencies.

Sustainable Rice and Biopesticide Innovations

Delisa presented on the Sustainable Rice platform, highlighting its expansion through public-private partnerships and its focus on ecosystem management beyond rice production. Ravi Khetarpal, Executive Director, APAARI, discussed the APARI team's work on biopesticides, sharing insights from a 2-year project in South and Southeast Asia that demonstrated the effectiveness of substituting final chemical sprays with biopesticides for residue mitigation. The project achieved significant outcomes including capacity building for over 170 government officials, development of 18 standardized protocols for major commercial crops, and high-level key policy recommendations.

Biopesticides: Challenges and Opportunities

The meeting focused on biopesticides, with discussions on private sector engagement, regulatory reforms, and challenges in Asia-Pacific. Delisa highlighted the private sector's strengths, including technical expertise and farmer networks, while Ravi emphasized the need for harmonized regulations and public awareness to drive innovation and adoption. The panelists agreed that regulation is crucial for innovation, and Asia-Pacific's enterprising farmers show potential for adopting new technologies. Questions about scientific capacity and country-specific priorities were raised, with Ravi noting the need for improved policy communication skills among scientists.

Biopesticide Progress in Bangladesh

Nirmal Kumar Datta, Chief Scientific Officer at the Bangladesh Agriculture Research Institute (BARI), shared the institute's success in promoting biopesticides and reducing toxic chemical pesticide use. He highlighted their collaboration with APAARI and STDF on a pesticide residue mitigation project, which has led to significant advancements in biopesticide development and training. He mentioned that a new biopesticide regulation is in the final stages of approval by the Ministry of Agriculture, with the secretary showing strong interest in biodiversity. Peter noted the success of similar initiatives in Africa and Latin America.

Biopesticides Regulation and Adoption

The meeting focused on biopesticides and their regulation in Thailand, with Prachathipat Pongpinyo discussing science-based studies and regulatory harmonization efforts. Delisa shared insights on farmer adoption challenges and suggested using demonstration plots, behavioral change techniques, and economic incentives to encourage technology transfer. Ravi and Ansari highlighted the need for a clear global definition of biopesticides, with Ravi emphasizing the distinction between biopesticides and broader biologicals, and Ansari mentioning the EPA's definition and the EU's shift to "biocontrol."

Biopesticide Investment and Innovation

Ansari discussed the global scenario of biopesticide investments, highlighting the role of small and medium-sized enterprises (SMEs) in driving innovation in biological crop production. He emphasized the importance of public-private co-investment to advance biopesticides, citing Bionema's success in combining government funding with private investment. Darshika P. Senadheera, Communication officer and ABCoP lead, APAARI introduced the Asia-Pacific Biopesticide Community of Practice (APCoP), which serves as a platform for knowledge exchange and collaboration among practitioners and policymakers.

The panel addressed questions about the scope of stewardship for biopesticides, the environmental conditions required for their effectiveness, and the challenges faced in transitioning from synthetic to biological pest control solutions.

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