



STANDARDS *and* TRADE  
DEVELOPMENT FACILITY

# **Pre-Inception Webinar: Asia Pesticide Residue Mitigation through the Promotion of Biopesticides and for Enhancement of Trade Opportunities**

**4 March 2020**

## **Synthesis Report**

### **Background**

Developing countries frequently encounter market access obstacles related to compliance with international trade standards, and there is very little support or specific strategies provided to address this problem. The overall goal of the project is to facilitate trade by preventing MRL violations that result from pesticide residues on agricultural commodities, and by promoting appropriate use of biopesticides. The project will therefore develop a process for identifying and prioritizing residue trade barriers, then establishing a methodology for mitigating those barriers, coordinated regionally and for global markets. This process will aim to increase understanding and compliance with Codex MRLs, ensuring growers access to important export markets. Furthermore, through this process, biopesticide availability can increase, the costs and barriers to biopesticide availability can decrease. This will also contribute to broader development goals of improved human and environmental health, such as reducing risk to consumers, pesticide applicators, and the environment. Therefore, this project aims to contribute to the higher development goals of poverty reduction and economic growth, through delivery of technical capacities and functional (soft) skills, as a means to achieve these higher-level development goals.

Due to the postponement of the face-to-face Inception Workshop for the project due to the spread of the Corona virus, a 2-hour webinar was organized by the Asia-Pacific Association of Agricultural Research Institutions (APAARI), in collaboration with the project partners – IR-4 Rutgers University, United States Department of Agriculture (USDA), and Standards and Trade Development Facility (STDF) / World Trade Organization (WTO). APAARI's Bluejeans webinar platform was used to facilitate the webinar.

### **Webinar objectives and outcomes**

The webinar aimed to:

- build the participants' understanding of the project, its capacity development focus, and related framework for the training delivery
- share and discuss the results of the pre-workshop survey, and

- present the process of the project implementation with the envisioned work plan.

With these objectives in mind, the participants learned about the project and received answers to their queries, to enable them to better understand the involvement of their countries in the project, and allocate time and plan their institutions' activities accordingly.

## **Participants**

The primary beneficiaries of the project will be national pesticide regulatory authorities, farmers, industry associations, agri-food export companies, and domestic consumers. As such, the target group for the webinar will be participants from the above-mentioned institutional types from countries of the Association of Southeast Asian Nations (ASEAN) and South Asian Association for Regional Cooperation (SAARC). In addition, members of grower organizations, pest management industry trade groups, as well as representatives of the Food and Agriculture Organization of the United Nations (FAO), German Development Agency (GIZ), Organization for Economic Co-operation and Development (OECD), and other related interested parties participated in the webinar. In total, thirty persons joined the webinar.

## **Speakers**

- Catalina Pulido, Economic Affairs Officer, STDF/WTO
- Michael Braverman, Manager Biopesticide, Organic and International Capacity Building Programs, IR-4 Project, Rutgers University
- Ravi Khetarpal, Executive Secretary, APAARI
- Martina Spisiakova, Knowledge Management Coordinator, APAARI

## **Facilitation**

- Moderator: Martina Spisiakova, Knowledge Management Coordinator, APAARI
- Technical facilitator: Celilu Bitong, Knowledge Management Officer, APAARI
- Support: V. K. Sah, Senior Admin Associate

## **Welcoming statement: Catalina Pulido, Economic Affairs Officer, STDF/WTO**

The STDF is financed by bilateral donors, and is a global partnership founded by the Food and Agriculture Organization of the United Nations (FAO), the World Organization for Animal Health (OIE), the World Trade Organization (WTO), the World Health Organization (WHO) and the World Bank Group. Codex and the International Plant Protection Convention (IPPC) also actively contribute to STDF's work.

The STDF works with other diverse partners involved in agriculture, health, trade and development, including other international and regional organizations, developing country experts and the private sector. APAARI and IR-4 are part of STDF's network. They are appreciated by the STDF thanks to their experience and for being focused on results.

Trade in food and agricultural products offers a way for farmers, processors and traders in developing countries to increase their incomes and to boost economic development. But despite the potential, there are many challenges. Limited capacity to meet food safety, animal and plant health requirements is often one of the major obstacles.

The STDF aims to help developing countries to strengthen their sanitary and phytosanitary (SPS) capacities. For this, the STDF provides grants for the preparation as well as for the implementation of technical assistance projects. The aim is to encourage compliance with international standards in the SPS area so that developing countries can gain and maintain access to international markets.

Last month, the STDF launched the new STDF strategy 2020 - 2024. It builds on STDF's track-record but goes beyond by elaborating on how the STDF aims to deliver results and influence change. More synergies and collaboration, and greater access to, and use of good practices and knowledge products at global, regional and national level, drive catalytic improvements in SPS capacity in developing and least developed countries, and ultimately facilitate safe trade.

Many developing countries face challenges to meet pesticide Maximum Residue Limits (MRLs). In fact, MRLs and pesticide-related issues count high among trade concerns raised in the SPS Committee at WTO. In the past, the STDF funded three regional projects focused on building capacity to meet Codex MRLs for minor use crops, including one project in ASEAN (implemented with support from IR-4), which achieved very good results. In Asia, some countries have identified access to newer, low-toxicity biopesticides as a priority, and have started to regulate and develop frameworks for biopesticides. Much more still needs to be done in order to identify and tool out new solutions in order to address pesticide related issues affecting trade.

This new regional project engages public and private sector stakeholders in Asia to test a new approach, that combines non-residue producing biopesticides with conventional pesticides, to reduce trade issues linked to non-compliance with pesticide MRLs. Least developed countries – Bangladesh, Cambodia, Lao PDR and Nepal, as well as other developing countries – Sri Lanka and Indonesia – will participate and benefit, working in partnership with more advanced countries – Malaysia, Thailand and Singapore – to be involved as mentors and trainers, promoting South-South cooperation, regional networks and learning. This fits nicely with the principles of the STDF's new strategy.

This project is aligned to national and regional priorities, as well as other global and regional efforts on the regulation and use of biopesticides, including work by Chile on biopesticide regulatory harmonization (through the Codex Committee on Pesticide Residues), as well as work in the OECD. In addition, this project was developed through a project preparation grant implemented by APAARI. IR-4 at Rutgers University and USDA provided technical guidance during this work, and consultations took place with relevant international partners such as FAO and GIZ. Many of the government officials present in the webinar were actively involved in the first MRL ASEAN project, then in the project preparation grant and now in this new project. Building on existing work is core to the STDF's principles.

The importance of increased capacity on pesticide MRLs, as well as the need for additional work to address the challenges faced, was highlighted in a recent external evaluation of the finalized three regional STDF projects on MRLs for minor-use crops. Therefore, this new regional project is important for the STDF for at least 4 main reasons:

- It will test an alternative approach to improve compliance with pesticide MRLs (which is an ongoing trade challenge);
- It is based on close collaboration between government authorities in the participating countries, and the private sector, and is expected to facilitate additional public-private partnerships;
- It encourages cooperation, dialogue and exchange within and across the ASEAN and South Asian regions;
- The results are likely to generate broader experiences and lessons, of wider relevance and interest. Biopesticides are of growing interest to regulatory agencies and work is advancing on this topic regionally and globally, such as ASEAN, Codex and the OECD.

The STDF will contribute with almost nine hundred thousand dollars for the project implementation. In such as multi-stakeholder project, there is a particular need to ensure that activities across different countries and involving diverse partners are effectively planned, implemented and monitored. Implementation by APAARI, which has sound project management expertise and strong collaboration with technical partners, will help addressing this challenge. However, and more importantly, it will be the project participants' enthusiasm, motivation and commitment that will ensure a successful implementation of the project.

### **Project background, objectives, timelines, and the Inception Meeting**

The project on Asia Pesticide Residue Mitigation through the Promotion of Biopesticides and for Enhancement of Trade Opportunities aims to increase awareness of how pesticide residue issues impact trade and develop methods for overcoming these trade barriers. It has the following three primary areas of focus involving capacity development of technical skills:

- Residue Mitigation with Biopesticides
- Microbial Biopesticide Manufacturing
- Regulatory cooperation

The project will develop decline residue data and a better understanding of how time, IPM production practices and end of season mitigation impact residues. The high quality data envisioned to be generated by this project will be a reliable predictor of residue decline. A major part of the project will focus on farmer education.

The project will be implemented through the following phases:

- Project initiation
- Analytical phases: (i) field phase residue; and (ii) biopesticide efficacy
- Farmer education

- Report preparation and submission to STDF

The first analytical phase on multiple ingredient decline studies will determine: which active ingredients have residues that can be mitigated in a reasonable length of time. The acceptable level of residues varies depending on the pesticide –crop combination and the MRL of the anticipated export markets. In case of a rapid decline in residues (approximately less than 7 days until reaching acceptable MRLs) there is no need for mitigation (this would be a farmer education issue); with an intermediate decline (7-21 days), there is a good chance for implementing residue mitigation; and ‘with a very long decline (greater than 30 days), restricting pesticides to earlier season use will be facilitated through a multi-stage mitigation approach. The guidance from decline data will feed into intended export market processes, including regional trade, Australia, China, European Union (EU), Japan, Korea and other countries and regions.

The key first next steps for the project are to identify team members (Name/organization /e-mails) from the participating countries, including the following roles:

- Facility Management
- Study Director
- Field Research Director
- Lab Research Director
- Quality Assurance (Field and Lab)
- Efficacy Evaluation

For chili pepper, the project studies will take place in Indonesia, Malaysia, Sri Lanka, and Thailand to address the following pests: thrips, aphids, whitefly. Based on the results of the study, the project will test physical and chemical compatibility, field analytical interferences and overlapping peaks. For greens, the study will target Bangladesh and Nepal to address the following pests: aphids, whitefly, grasshopper, and diamondback moth. For basil, the study will take place in Cambodia and Lao People’s Democratic Republic (PDR) and will address the following pests: aphids and whitefly. For dragon fruit and rice, the studies will focus on Cambodia and Vietnam, addressing the following pests: bipolaris, anthracnose, and panicle blast. There are countries that have been involved in these activities before and the project will greatly benefit from their experience. The table below provides an overview of the country involvement in the project.

### Summary of the country involvement in the project

	Inception Workshop	GLP Capacity Building	Residue mitigation studies	Biopesticide Manufacturing and Development	Biopesticide Regulatory Harmonization	Final Results and Dissemination Planning
Bangladesh	√	√	√	√	√	√
Cambodia	√	√	√	√	√	√

Indonesia	√	√	√	√	√	√
Lao PDR	√	√	√	√	√	√
Malaysia	√	HF	√	0	√	√
Nepal	√	√	√	√ H	√	√
Sri Lanka	√	√	√	√	√	√
Thailand	√-H	HL	√	0	√ H	√
Vietnam	√	o	√	0	√	√
Singapore	√	HL	0	0	√	√

**H:** Meeting Host    **HF:** Host and Trainer in the Field (Malaysia)

**HL:** Host and Trainer in the lab (Thailand)    **0:** Not involved in this activity

To analyse compatibility, the following questions need to be answered by the project participants:

- Can you mix the pesticides to be tested? Are there issues?
- Who can test for physical/chemical compatibility by looking for formation of a precipitate, chemical-exothermic reaction or phytotoxicity?

There is a need to identify available lab equipment including: LC/MS-MS, GC-MS, HPLC Detector, and GC Detector combination systems. Based on the available equipment, consideration needs to be given whether it is possible to analyze the conventional pesticides in a single sample. If yes, what is the expected LOD and LOQ.

The next proposed meetings of the project will be as follows:

- Inception Workshop: 25-26 June 2020, Thailand
- Group Lab Training: 29 June – 3 July 2020, Thailand
- Field Group Training: 13-15 July 2020, Malaysia

## Project capacity development

The project will focus on two types of capacity development:

- **technical knowledge** and skills that are specific to the project's objectives(described above); and
- **functional (soft skills):** knowledge, attitudes and behavior needed to apply and coordinate technical capacities to contribute to long-term development outcomes more effectively.

Why are these both types of capacity development important?

In the context of its work under the Tropical Agriculture Platform (TAP) on promoting capacity development (CD) for agricultural innovation systems (AIS), APAARI has been actively promoting the integration of functional capacities into technical capacity development programmes. This is because the technical skills alone cannot successfully facilitate adoption and application of such skills and innovative technologies. It is often overlooked that focus on people, particularly communication, negotiation, mutual

understanding and collaboration skills, are a key for a long-term success of a technical project or organizations in general, and enhanced innovation. In the context of this project, the efforts will also be to build more effective and dynamic relationships among multiple actors involved in pesticide residue mitigation activities.

This new concept of CD for AIS is felt to be absolutely necessary to blend with technical capacities in order to enhance the outputs and outcomes of this project. When we talk about AIS, innovation should not be confused with invention. It is not just research output. Innovation provides a socio-economic value, so functional capacities enable more partners to strengthen innovations. But innovation and capacity development cannot be looked at in isolation from a perspective of one player. It needs to be viewed from the system perspective, involving all innovation actors (individuals, organizations and enterprises) that together with supporting institutions and policies, can bring existing or new agricultural products, processes and practices into social and economic use.

The functional capacities of focus under TAP include capacity to: navigate complexity, collaborate, reflect and learn, and engage in strategic and political processes that together enable innovation. Within this framework, APAARI has identified other capacities that are critical to realize the potential of innovation. These include:

1. **Adaptability** to learn and adapt quickly to meet changing consumer demands, as well as to the industry changes with new challenges constantly presenting themselves. These must be addressed quickly by adopting new methods advanced by technological innovation.
2. **Interpersonal skills** are incredibly important as they are required to interact with farmers, work with producers, exporters and importers, and others. Listening is equally important to ensure all needs and targets are met, ultimately developing enduring long-term relationships and collaboration. The ability to negotiate is incredibly important in the agriculture industry, particularly when entering formal and informal dialogue with independent regulatory bodies, key stakeholders, and of course, the government.
3. Strong **organization skills** are a huge asset particularly the work in logistics, variety of products and farmers. It needs to be ensured that raw materials are properly transported, stored and delivered from producer to consumer.
4. **Time management** is also important for field workers, including agricultural labourers, farmers, and machine operators. As farming depends on the seasons, weather conditions need to be factored to ensure that consumer demands are met, while sustaining their farming activities during the off season.
5. **Tech-savvy** means having knowledge of where technology is going and technology development, particularly in terms of agriculture practices. This includes a focus on processes such as irrigation, pesticide-use, and improving methods and techniques of cultivation, harvest, storage and transport.

## **Results of the pre-workshop survey**

A pre-workshop survey on pesticide residue mitigation was conducted prior to the webinar to assess technical and functional capacities of the project participants.

Seventeen people completed the survey representing the following countries: Cambodia, Bangladesh, Indonesia, Laos, Malaysia, Nepal, Singapore, Thailand, and Vietnam.

The top **technical** skills needing capacity building that have been indicated by primarily new project participants include:

1. Ability to develop and follow a GLP study protocol
2. Ability to develop and follow SOP for a GLP study
3. Ability to follow and complete a field notebook for a GLP study
4. Ability to set up a field plot for a GLP study
5. Ability to calibrate a sprayer for a GLP study
6. Ability to validate an analytical method for a GLP study
7. Ability to perform sample analysis and laboratory quality control for a GLP study

Other top technical skills indicated by new and experienced project participants include:

1. Knowledge of biopesticide use
2. Experience in evaluating the activity of biopesticides
3. Knowledge of how biopesticides are manufactured

A surprising result was that the ability to audit a GLP study was not listed. From the trainer's perspective, in comparing field, analytical and quality assurance skills, quality assurance was the greater remaining need. Additional capacity development was requested for pesticide selection to suite the use under high-density indoor farming setup.

In terms of **functional** skills needing capacity building, 24-35% respondents indicated poor or very poor capacity as follows:

1. Understanding and solving problems in field and analytical projects
2. Awareness of opportunities for policy change in JMPR, CCPR or CODEX
3. Influence of decision-making processes in domestic pesticide issues related to biopesticide regulations
4. Knowing how to engage farmers to impact pesticide use (motivating farmers to use pesticides correctly, strengthening their capacity in the use of biopesticides).

Additional need that was emphasized was strengthening local authorities' knowledge on pesticide residue mitigation. This points out to the need to develop capacities for problem solving in the context of complexity, engagement in policy dialogue, and interpersonal skills (negotiation), particularly with farmers and decision makers, which will be incorporated into the training.

The following means of integrating functional capacities into the project are envisioned:

- 1-day to be added to the inception, regulatory harmonization, extension education/ final workshops
- Webinars that will be demand-driven by the project participants
- Integration with technical training – in addition to technical presentations and hands-on training, APAARI will propose some group sessions using engagement

methods to develop some of those areas mentioned above – particularly through critical reflections and communication

### Work plan March 2020 – March 2023

The work plan covering the period from March 2020 and March 2023 is included in Annex 2.

### Main discussion points

Through the chat box, the participants consulted the speakers on the following issues and queries:

<b>Participants' questions/comments</b>	<b>Feedback from the speakers</b>
The number of participants that can attend each training/capacity development	Group training – two participants per country. For the host-country – the host will be able to determine the number of people to be involved.
Involvement in Vietnam in the GLP capacity and biopesticide manufacturing activities	This depends on the budget, which will be revisited. Vietnam did very well in the field trials in the past, while there are countries like Cambodia and Bangladesh that now need this training. The project will also provide assistance for the country teams on analysis. Therefore, even if Vietnam is not involved in the group analytical training, one-on one training will be provided as needed.
Possibility for NARC Nepal to become an official partner of the project, since it has capacity to conduct experiments and trials, as well as GC/MS.	The Nepal team composition needs to be sent to the project team. Based on the discussions with NARC during the PPG meeting in Singapore in 2019, a letter was sent to the Nepal's Ministry of Agriculture (MOA) and in the meantime, the MOA Secretary joined FAO as a Senior Agricultural Officer. He communicated to APAARI that he is in touch with the Ministry trying to make NARC an official partner of the project.
CropLife's involvement in the project, particularly through its Sub-Committee on Biopesticides.	CroplifeAsia has provided great assistance and facilities during the PPG meeting in Singapore, which is appreciated. There is a need to develop a scope and target where we want to conduct the sampling and studies. Regarding biopesticides, an inception workshop is planned where companies will be invited representing traditional biopesticides, as well as CropLife Asia, looking for their inputs to the project. Suggestions are also needed on crop/pest

	<p>combinations regarding biopesticide active ingredients.</p> <p>Additional funding may be required to fund extra participants to attend the project training, as has been shown by the demand.</p>
<p>There are issues with Fipronil and Methomyl. Use of these two pesticides are highly restricted with MRLs at 0.01ppm, or even lower than 0.01ppm for Fipronil. Will the project still consider these two pesticides?</p>	<p>Feedback has been received from Malaysia and Thailand that Methomyl is no longer available in these countries. Vietnam banned Fipronil. The project will not support initiatives that are illegal in those countries.</p> <p>MRL 0.01 is not a criteria for leaving it out of the project study. A banned product in a country is an important criteria and banned products will not be considered.</p>
<p>Indonesia's possible involvement in the biopesticide capacity building.</p>	<p>Indonesia is listed in the GLP capacity building from the field aspect, since the country is very well equipped with laboratories. So, it will not be involved in the group lab training, but in field training.</p>
<p>Organization of the project's work on farmer education.</p>	<p>This component has not been worked out and needs to be developed.</p> <p>This is an important point for discussion in the inception workshop.</p> <p>Two farmers representatives are involved in this project.</p> <p>How to make the project information available to growers will be critical.</p>
<p>Some pesticides are banned in Bangladesh but a few unscrupulous people still use them. What can be done?</p>	<p>Bangladesh will be involved in all the aspects of the project, including GLP lab and field aspects, residue mitigation studies, biopesticides manufacturing and development.</p> <p>The project will not solve the unscrupulous people using the banned pesticide, this goes beyond the scope of the project.</p>

It was also pointed out that every country involved in rice production may also have chili pepper production. The focus of the project is on the most serious needs and residue issues in exports. The studies that will be conducted in some countries will therefore be also applicable to other countries in the region.

### **Next steps agreed**

Ms. Pulido asked Rutgers University and APAARI to elaborate on the immediate next steps and also on what the agenda would be for the June inception workshop in June 2020. A more detailed workplan and a tentative calendar for the group and in-country trainings has also been requested.

The next steps presented in the webinar include the following:

1. Identification of Team Members.
2. Analytical equipment planned to be used for analysis.
3. Potential analytical interferences.
4. Physical compatibility testing.
5. Potential impact of cropping season on project timelines.
6. Any major conflicts in holding the inception workshop in late June and Capacity building activities in early July 2020.
7. Feedback on how the development of functional capacities, in addition to the technical ones, can help achieve the project outcomes in the long run.
8. Feedback on how best can women be integrated in the project activities.

However, these will be revised and elaborated after the webinar as requested by STDF, along with a detailed workplan and a clear calendar activities for the year. The immediate next step will also be identification of teams and roles especially from new participating countries. The secondary step will be a confirmation of which pesticides are legal or are illegal in the participating countries.

### **Closing**

The closing presentation and statement emphasized the new platform for disseminating project knowledge – a Facebook tool – that has been designed and will be used as one of the project's main Social Media dissemination channels. How to capture the project performance also needs to be considered, as well as how to bring to the ground GIZ, FAO and Croplife Asia that have actively contributed to the project design. APAARI will look at the IPM work that FAO is doing to ensure a much better output in the region. Regarding performance monitoring, Dr. Norah Omot – Policy Coordinator, APAARI – was introduced to play this role. Finally, more interaction and close collaboration will be needed throughout this project, and APAARI will play an active role in its facilitation.

### **Webinar resources**

**Webinar link:** <https://www.youtube.com/watch?v=2mrA-D1jNo8&t=2967s>

## Annex 1: Agenda

<b>Topic</b>	<b>Speaker</b>	<b>Time frame</b>
Welcome and Introduction	Moderator and Catalina Pulido-STDF/WTO	10 minutes
Project background, objectives, timelines, and the Inception Meeting in Bangkok – June 2020	Michael Braverman, Manager Biopesticide, Organic and International Capacity Building Programs, IR-4 Project, Rutgers University	15 minutes
Capacity development focus and followed framework	Michael Braverman (technical) Ravi Khetarpal, Executive Secretary, APAARI (functional)	15 minutes
Questions, clarifications and analytical capabilities by the participants	Participants through Chat Box	10 minutes
Results of the pre-workshop survey	Michael Braverman (technical) Martina Spisiakova, Knowledge Management Coordinator, APAARI (functional)	15 minutes
Felt need for other project-related skills	Participants through Chat Box	10 minutes
Way forward – proposed work plan	Michael Braverman	10 minutes
Questions and clarifications by the participants.	Participants through Chat Box	10 minutes
Closing	Catalina Pulido	5 minutes
<b>TOTAL TIME</b>		<b>1 hour 40 minutes</b>

## Annex 2: Work Plan – March 2020 – March 2023



### Work Plan March 2020 to March 2023

Activity	Responsibility	2020-2021				2021-2022				2022-2023		
		3	7	11	2	3	7	11	2	3	7	11
Month												
I. Inception Workshop, Survey and First Steering Committee Meeting.	Project Manager, Michael Braverman, Jason Sandahl, Ravi Khetarpal Martina Spisiakova	X										
II. Steering Committee Meeting	Project manager, Michael Braverman, Jason Sandahl	X		X		X		X		X		X
III. Reports to STDF (Inception Report is part of first 6-month report. Subsequent reports are on a 6-month schedule.)	Michael Braverman, Jason Sandahl, Project Manager		X		X		X		X		X	

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### Work Plan March 2020 to March 2023

**Output 1: New MRL data and improved knowledge to interpret this data on the use of biopesticides (combined with conventional pesticides) to mitigate pesticide residues.**  
Scientists are able to conduct residue mitigation studies and data is generated

Activity	Responsibility	2020				2021-2022			
		-							
Month		2021							
		11	02	3	7	11	2		
Activity 1.3 Follow up oversight Field and Laboratory activities	Michael Braverman, Malaysia, Singapore, Thailand		X	X	X	X	X		
Activity 1.4 Generate Residue Decline data	Michael Braverman	X*	X	X	X	X			
Activity 1.5 Generate Biopesticide Efficacy studies	Michael Braverman		X	X	X	X	X		

\*More advanced countries will be able to start the residue mitigation trials before others because they do not need the field or lab training before starting



### Work Plan March 2020 to March 2023

Activity	Responsibility	2020-2021			2021-2022			2022-2023			
Month					<b>02</b>	<b>3</b>					
<b>Output 2: Microbial Manufacturing</b> – Government scientists will have the capacity to efficiently manufacture native microorganisms for use as biopesticides											
Activity 2.1 Conduct workshop on small scale microbial Biopesticide manufacturing	Michael Braverman, Stefan Jaronski				X	X					



### Work Plan March 2020 to March 2023

Activity	Responsibility				2021-2022						
Month							<b>11</b>	<b>02</b>			
<b>Output 3: Enhanced capacities for regulatory harmonization</b> – Government authorities will have a regulatory system in place specific for biopesticides and communicate with other regional bodies on the harmonization of their systems.											
Activity 3.1 Conduct Biopesticide regulatory harmonization workshop	Michael Braverman, Thomas Jaekel, Martina Spisiakova						X	X			

## Work Plan March 2020 to March 2023

Activity	Responsibility													2022-2023					
		Month													3	7	11	02	
<b>Output 3: Enhanced capacities for regulatory harmonization</b> – Government authorities will have a regulatory system in place specific for biopesticides and communicate with other regional bodies on the harmonization of their systems.																			
IV. Final Meeting to discuss results	Michael Braverman, Martina																X		
V. Dissemination Agricultural Extension type efforts-Knowledge management	Project Manager, Michael Braverman, Martina Spisiakova																X	X	X

### **Annex 3: Partner profiles**

**STDF:** STDF is a global partnership that helps developing countries improve their food safety, and animal and plant health capacity to meet SPS requirements. Its partners include FAO, World Organization for Animal Health, World Health Organization, the World Bank Group, and WTO. STDF is a global coordination platform that links knowledge work with SPS capacity building. It is also a funding mechanism for SPS project and project development.

**IR-4 Project, Rutgers University:** IR-4 was established in 1963 to develop pest management tools to specialty crop growers. IR-4 is funded primarily through USDA. Its vision is to develop a global network of research cooperators to generate quality residue data for submission to JMPR and development of new CODEX MRLs and strategies for dealing with harmonization issues to reduce trade barriers. IR-4 has developed the concept of residue mitigation and is the principal scientific lead of the new STDF funded project

**USDA Foreign Agriculture Service (FAS):** FAS provides technical assistance to foreign partners to promote and facilitate the trade of agriculture. FAS has foreign service officers located at many US Embassies around the world, and supported by staff located in Washington DC. The Office of Global Programs provides technical assistance in the areas of food safety, plant health and animal health. In terms of priority areas, over the past few years, pesticides/MRLs has risen as a top trade issue at FAS. FAS supports alignment of pesticide registration systems and MRL adoption practices, and promotes a full range of pest control tools being available to farmers.

**APAARI:** As an political, regional organization established in 1990 by FAO and most NARS in the Asia-Pacific region, APAARI aims to strengthen research and innovations for sustainable agricultural development in the region. It currently has 85 members represented by NARS, CG and AIRCA centres, higher education, civil society, regional and global fora, and numerous partners/stakeholders. It is an intermediary that is bridging different stakeholders and knowledge, as well as an innovation platform facilitating face-to-face and online interactions, building capacity, and facilitating collaboration and networking to create and apply successful agricultural innovations

## **Annex 4: Speakers' profiles**

**Ms. Catalina PULIDO**, who is responsible for the design and management of projects and project preparation grants across food safety, animal and plant health in STDF. She has a strong background in reaching consensus among public, private and non-profit sectors, as well as expertise in public financial management, private sector, and trade and environment projects in the field. Before joining STDF last year, she worked with the Swiss Economic Cooperation (SECO) in Colombia, as well as the WTO, UN and Government of Colombia.

**Dr. Michael Braverman**, is a former faculty member of Louisiana State University, where he conducted rice research; and an Extension Vegetable Specialist of Texas A&M University. As a Fulbright Scholar to Thailand in the past, he conducted research as part of the opium-substituted crops project. He has been with the IR-4 Project as a Senior Scientist at Rutgers University for 20 years. He currently manages research programs on pesticide residues and prepares scientific dossiers for review by the U.S. Environmental Protection Agency. Dr Braverman has conducted capacity building and research projects throughout Asia and Africa resulting in establishing new pesticide CODEX MRLs to facilitate global harmonized trade.

**Dr. Ravi Khetarpal** worked as Regional Director and Regional Advisor on Strategic Science Partnership of the Centre for Agricultural Bioscience International (CABI) – South Asia Office. Prior to this he worked for the National Agricultural System in India for three decades, and a consultant of twelve projects supported by FAO, World Bank, and USDA. He also represented Asia as a Developing Country SPS expert in a Working Group of STDF. He has published over 110 research papers, 18 books, 59 book chapters, 16 review articles and policy papers.

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