

STDF PROJECT PREPARATION GRANT (PPG)

APPLICATION FORM

The Standards and Trade Development Facility (STDF) provides Project Preparation Grants (PPGs), up to a maximum of US\$50,000, for the following purposes (or a combination thereof):

- application of SPS-related capacity evaluation and prioritization tools;
- preparation of feasibility studies that may precede project development to assess the potential impact and economic viability of proposals in terms of their expected costs and benefits; and/or
- preparation of projects proposals that promote compliance with international SPS requirements, for funding by the STDF or other donors.

Applications that meet the STDF's eligibility criteria are considered by the STDF Working Group, which makes the final decision on funding requests. Complete details on eligibility criteria and other requirements are available in the *Guidance Note for Applicants* on the STDF website (www.standardsfacility.org). Please read the *Guidance Note* before completing this form. Completed applications should be sent by email (as Word documents) to STDFSecretariat@wto.org.

PPG Title	Overcoming Barriers to Trade Through Regulatory Harmonization and Related Research with Biopesticides for Selected Countries within the SADC Region
Budget requested from STDF	USD \$ 41,295.00
Full name and contact details of the requesting organization(s)	Southern African Pesticide Regulators Forum (SAPReF) ¹ Private Bag 0091 Gaborone Botswana Phone.: +267-3928745 Email: lsebetwane@gov.bw
Full name and contact details of contact person for follow-up	Dennis O. Ndolo Group Leader – Biopesticides International Centre for Genetic Engineering and Biotechnology (ICGEB) Wernher & Beit Bldg (South), UCT Campus, Anzio Road Observatory 7925, Cape Town, South Africa. Phone.: +27-21-4047693 Email: ndolo@icgeb.org Website: https://www.icgeb.org/biopesticides.html

I. BACKGROUND AND RATIONALE

1. What is the purpose of this PPG? Explain whether it is requested to: (i) apply an SPS-related capacity evaluation or prioritization tool; (ii) prepare a feasibility study (prior to project development) to assess the potential impact and economic viability of proposals in terms of their

¹ SAPReF is a sub-committee under the Plant Protection Technical Committee of the SADC Sanitary and Phytosanitary (SPS) Annex VIII to the SADC Protocol on Trade, Article 14 (6) working on pesticides (i.e., plant protection products, agricultural remedies, public health pesticides, etc.) and pesticide related issues. SAPReF has the role of promoting regional information exchange, and collaboration on pesticide and pest management as well as regulation. With a membership which includes pesticide regulators and/or Designated National Authorities of the Rotterdam Convention, pesticide risk managers from diverse backgrounds and disciplines from all the SADC countries it seeks to achieve sound management of pesticides and biopesticides used in agriculture, public health and domestic environments.

expected costs and benefits; and/or (iii) prepare a project proposal for consideration by the STDF or other donors?

The agricultural sector accounts for a large share of the Gross Domestic Product (GDP) of the Southern African Development Community's (SADC) Member States²; contributing between 4% - 27% of GDP and approximately 13% of overall export earnings. On average, the highest share (45%) of total SADC exports is to the Asia-Pacific (AP) Market, followed by the European Union (EU) (27%) and the rest of the world (15%). Trade within Africa is the smallest and of this the majority is intra-SADC trade. The AP region is forecast to grow, on average, at a rate of 6.8% year-on-year until 2019, making up almost 40% of the global food retail market by value. This presents the SADC region with a significant opportunity to increase its AP trade exports. Such an increase would largely be driven by changes in the agricultural sector, since most export destinations including the EU and the African, Caribbean and Pacific (ACP) regions have relatively low barriers for most goods except for agricultural and finished products. A [2017 report of the International Labour Organisation](#) notes that SADC's share of agricultural market demand globally and in major markets, remains low. It further notes that with trade agreements already in place, SADC countries could double or even triple their market share in key markets, with one of the ways of achieving this being to address agricultural product quality. According to the [World Bank's 2016 Doing Business report](#), SADC ranks very low in terms of trading across borders, with a weighted regional average of 113/189. SADC member states have largely been unable to meet SPS measures, resulting in a decrease in the agricultural export value of preferential market access offered by the EU and under the US Africa Growth Opportunities Act. South Africa, however, does not encounter significant problems complying with SPS measures and exporting to SADC countries or outside of SADC. This is because it is the only country in Sub-Saharan Africa that easily meets the international standards set by the WTO on SPS measures.

South Africa has very well developed guidelines on the registration of agricultural remedies, including biopesticides. This presents a very good opportunity for South-South cooperation between South Africa and other SADC countries, facilitating the sharing of technical advice and best practices. The Southern African Economic and Research Council suggests that some of the trade challenges between SADC countries could be addressed by i) adopting common and mutually recognized standards and ii) harmonising regulations across the region. Facilitating trade at an international level therefore requires the development of harmonised regulations, based on relevant international standards such as the FAO/WHO Joint Codex Alimentarius Commission guidelines.

One of the major constraints to SADC member states meeting SPS (as well as Pesticide Maximum Residue Level [MRL] limits) is high synthetic chemical pesticide residue in agricultural produce. According to the [Southern African Pesticide Regulators Forum \(SAPReF\)](#), "...countries in the region lack effective and fully operational systems for pesticide regulation and control and support to farmers on the best practices in sustainable pest management and pesticide use. Widespread overuse, misuse, mishandling and mismanagement of pesticides are all too common throughout the region." Chemical residue levels could be greatly reduced – thereby increasing compliance with MRL requirements – by the use of biopesticides, particularly for late season pests, whose control by synthetic chemical pesticides is usually responsible for most of the residue found on agricultural produce. However, while a significant number of biopesticides have been developed over the years, very few have been registered and commercialised. The SAPReF has acknowledged this problem and identified regulatory challenges as one of the main barriers to biopesticide research development and commercialisation. In addition, stakeholder organisations do not generally hold a common view on the definition of 'biopesticides.' In its broadest conception it can include semiochemicals and pesticidal substances obtained from plants; indeed, some practitioners make no distinction between 'biopesticide' and 'biological control agent' in this wider sense. Some authors consider biopesticides to consist only of pathogens (i.e. micro-organisms). Such agents, however, should ideally be referred to as microbial biopesticides. There is also dispute as to whether the term should include biological control agents that rely on a numerical response for pest control. Some authors, for example, define biopesticides as "any mass produced and marketed natural enemy, including predators, parasitoids, nematodes and microbial agents," while others define it as "natural materials derived from plant extracts, and microorganisms, as well as

² Angola, Botswana, Comoros, Democratic Republic of Congo, Eswatini, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Tanzania, Zambia and Zimbabwe

certain minerals.” This divergence of views makes it problematic to determine what products should fall under the ambit of a regulatory system, resulting in some products being unregulated. This lack of clarity also appears to have impeded the development of a framework for coordinated studies on biopesticides and the integration of biopesticides as a good agricultural practice. To this end Chile is doing work within the OECD that will lead to the development of a paper on biopesticides which would among other things agree on a definition and classification of biopesticides and elaborate a potential list of compounds and harmonized orientations and guidelines regarding biopesticides. As further enumerated in this PPG application, discussions have been initiated to link with and develop synergies between the work being undertaken by Chile/OECD.

An additional challenge facing biopesticide trade is the divergence in legislation adopted by different countries to address product-relevant issues and concerns, adversely impacting import-export transactions - a further testament to the value of harmonising standards. Moreover, in many countries biopesticides are generally regulated by systems originally designed for chemical pesticides, creating market entry barriers through the imposition of burdensome costs on the biopesticide industry.

It is against this backdrop, that this application for funding seeks to prepare a project proposal (for consideration by the STDF and other donors) to address the regulatory constraints to biopesticide research and development and develop a clear and coordinated strategy on how to promote the inclusion of biopesticides into IPM programmes in selected SADC member states (hereinafter referred to as SADC countries); with the objective of reducing reliance on synthetic chemical pesticides, decreasing chemical pesticide residue levels, and increasing SPS compliance and intra and inter – regional trade. The countries have been selected based on the level of interest in the programme; a commitment that has been shown by many of the providing letters of support. This sub-group of countries will form a nucleus around which further initiatives will be explored with the other SADC countries.

2. Explain the key SPS problems and/or opportunities to be addressed. Clarify why these issues are important, with attention to market access and poverty reduction. Describe, if relevant, how these issues relate to SPS priorities in the Enhanced Integrated Framework’s Diagnostic Trade Integration Studies (DTIS), the findings of SPS-related capacity evaluations, national poverty reduction strategies, sector development strategies or policies, etc. See Qn. 7. (b) – (d) of the Guidance Note.

Some efforts have been made in recent years to address constraints to the registration of biopesticides in the SADC region. These include the formation of SAPReF to, *inter alia*, i) promote regional collaboration and harmonization as far as possible for pesticide regulation and ii) implement the objectives of the Plant Protection Technical Committee and the SADC Sanitary and Phytosanitary Annex to the SADC Protocol on Trade (which requires that SADC member states take necessary measures to facilitate the simplification and harmonization of trade documentation and procedures). Notwithstanding this, however, many countries in the region continue to face challenges complying with trade partner MRLs, due largely to excessive reliance on synthetic chemical pesticides, especially for late season pests in key export crops. To promote the use of resources in an effective manner, there is a need to identify where the most acute compliance challenges are faced. In a trade context, this means identification of the products and markets where the highest rates of non-compliance are recorded and focussing on these. For example, according to the United Nations Industrial Development Organisation’s (UNIDO) [“Regional Standards Compliance Report for 2015”](#), South Africa has a much higher level of compliance than the Democratic Republic of Congo. Such differences will have to be considered in designing the necessary interventions to assist compliance.

This PPG is targeted at and will benefit a sub-group of eight SADC countries (Botswana, Eswatini, Mozambique, Namibia, South Africa, Tanzania, Zambia and Zimbabwe). These countries face different challenges in relation to compliance with MRL (and by extension SPS) standards. The project proposal will be developed together with SAPReF – a sub-committee under the Plant Protection Technical Committee of the SADC Sanitary and Phytosanitary (SPS) Annex VIII to the SADC Protocol on Trade, Article 14 (6) working on pesticides (i.e., plant protection products, agricultural remedies, public health pesticides, etc.) and pesticide related issues.

As already noted, agricultural trade is an important contributor to the economies of the SADC region. About 70% of the region's population depends on agriculture for food, income and employment; hence, the performance of this sector has a strong influence on food security, economic growth, social stability and poverty reduction in the region. These priorities are in line with the DTIS (already conducted in all the SADC countries) which, among other things, advocate the optimal use of trade to spur development. Compliance with MRL requirements would increase the contributions of the agricultural sector to the economies of SADC countries through enhanced exports, as well as promote domestic employment, wealth creation and poverty reduction.

The proposal to be developed from this PPG aims not only to develop a coordinated framework to address regulatory barriers to biopesticide research, development and commercialisation in the target countries, but also to develop strategies to integrate biopesticides into other pest management programmes. The PPG work will assess the possible impacts of the project's proposed interventions on trade emanating from the SADC region. The project resulting from this PPG would be aligned to an approved PPG (STDF/PPG/634, approved by the STDF in the October 2018 Working Group meeting), and its eventual project, of the Asia-Pacific Association of Agricultural Research Institutions (APAARI)³ and the Inter-regional Research Project #4 (IR4) in order to share technical knowledge and expertise and ensure synergies in the development and implementation of the full SADC proposal. This would ensure the promotion of cross-regional (Asia-Africa) learning and overall wider impacts. The project would also be aligned to the work of other organisations, including FAO, USDA and the African Agriculture Technology Foundation (AATF), all of which have been involved in efforts to develop harmonized regulations for biopesticides in Africa.

It is important to note, however, that while guidelines are frequently developed their consistent implementation remains a challenge. The full proposal will, therefore, additionally propose the formulation of a mechanism to ensure that the framework developed under the proposed project is both implementable and implemented by SADC countries. Furthermore, as with any new technology, for biopesticides to have real impact, it must be recognised that the process leading to commercialisation of potential products is complex, requiring appropriate approaches in addition to technical suitability. Projects will therefore need to include both research and local capacity-building, focusing on a wider spectrum of players beyond researchers, including among others, policy makers, industry, regulators and academia, at all stages of each project. This project will therefore engage all key stakeholders in the formulation of the proposal; and as such letters of support have been sought from representatives of each of the major stakeholder groups, including regulators, researchers, academia and industry. Most importantly, as systems are developed, inclusion of private exporters and export promotion boards will be key to promote demand for products, including biopesticides.

The Codex Alimentarius is the globally recognized body responsible for setting food safety standards to help in the facilitation of international trade in safe foods. The WTO SPS Agreement encourages WTO Members to harmonize or base their national measures for food safety on the international standards, guidelines and recommendations developed by Codex. However, while all countries in the SADC region are members of the CODEX, their participation in relevant CODEX standard-setting bodies is limited, due largely to resource constraints. The proposed project intends to leverage upon the existing [guidelines developed by the AATF and USDA](#).

Biopesticides, by introducing unique modes of action, are used in integrated strategies with traditional pesticides to increase crop yields by working synergistically with chemical pesticides, to extend application timings and allow timely reuptake intervals as well as provide resistance strategies. There is, however, currently no appropriate tool or set of criteria available to evaluate how well a proposed biopesticide use would fit within an IPM program. Consequently, it is necessary to develop a clear and coordinated strategy on how to promote the inclusion of biopesticides into IPM programs and how these could be widely adopted to mitigate the residues of conventional pesticides potentially problematic for trade. An 'IPM Compatibility Guidance Document,' which includes a set of instructions and examples to help IR-4 project requestors develop a ranking and a short narrative description of a proposed pesticide use within an IPM

³ The Asia-Pacific Association of Agricultural Research Institutions (APAARI) was established in 1990 at the initiative of Food and Agriculture Organization of the United Nations and most of the National Agricultural Research Systems of the Asia-Pacific region. It brings together national, regional and global stakeholders to bring about collective change in agri-food systems of Asia and the Pacific.

programme, has previously been developed by the IR-4 Project; a similar document for biopesticides would be developed under the full grant proposal resulting from this PPG. The document, which will describe the ways that proposed pesticide uses could possibly fit into an IPM program, will encompass 21 specific factors in eight categories: efficacy, economics, nontarget effects, resistance concerns, environmental fate, worker risk, compatibility with monitoring and utility as a preventative. These would help formulate discussions about creating a customised scheme for biopesticides.

It should be noted, however, that the mere approval of biopesticides may not impact chemical residue levels - as only late season applications could be most impactful. This will need to be addressed through research to understand how the number of days between application and harvest reduces conventional pesticide residue. The proposed project will therefore also seek to promote the use of biopesticides, especially for late season pests in key export crops. In other words, in addition to addressing regulatory barriers, a programme to promote utilization of specific pesticides will be developed. The ultimate objective of the proposed project is to ensure that regulatory barriers to the use of biopesticides are removed, and for SADC countries to put in place and implement concrete actions to address specific chemical pesticide residue-related barriers to expanding trade. In addition to the harmonization of the registration process, development of exemptions from tolerance will be established and recognized to promote inter-African trade. In cooperation with IR-4, information will be gathered on tolerance exemptions in African countries, contributing to the global harmonization efforts by Chile.

The following key questions will guide the PPG work and the development of the proposal to be developed from this PPG:

- What are the key export crops from the SADC countries?
- What are the key residue issues impacting, international trade in these crops?
- What are the MRL standards in key export destinations?
- What are the options, including yet to be registered, non-residue generating biopesticides, that could be promoted to address the concerns?
- Which biopesticides have been developed within SADC countries but are yet to be registered, and what are the obstacles to registration?
- What sorts of products would be considered biopesticides within SADC, and would therefore fall under the ambit of biopesticide regulatory agencies?
- What are the regulatory and other barriers to the research, development and commercialization of these biopesticides?
- What are the other regional and international initiatives making efforts towards or having successfully developed guidance material for biopesticide evaluation, and how can these be leveraged to develop a strategy for the SADC region?
- What efforts will be undertaken at both regional and country level to ensure adoption of the guidelines?
- How could biopesticides be promoted and integrated into larger pest management approaches within the SADC countries?
- What strategies can be put in place to integrate biopesticides within other pest management strategies?
- How will non-residue generating pesticides be promoted for late season pests in key export crops within the SADC?
- What is the foreseen impact of the proposed interventions on trade from and within the SADC region?
- How can a system be developed for the recognition of efficacy data within the region?

The ultimate benefits of the project, for which a full proposal will be developed by the end of the PPG, include the following outcomes in the SADC region:

- Increased facilitation of registration of non-residue generating biopesticides for control of late season pests and hence mitigation of residue of conventional pesticides and facilitation of compliance with MRLs
- Overcoming hindrances to export (and regulated domestic) markets access due to lower chemical pesticide residue in key SADC export crops
- Decreasing exposure of consumers to conventional pesticide residues
- Decreasing exposure of farmers to higher-risk synthetic pesticides in cases where proper

- handling practices are not followed
- Enhanced exports of agricultural produce due to compliance with MRL requirements, hence promoting domestic employment, wealth creation and poverty reduction
- Development of a grower outreach programme to promote the use of biopesticides in export promotion programmes and domestic markets
- Enabling the increase in cottage industries for new plant extracts to be developed into biopesticides

3. Which government agencies, private sector, academic or other organizations support this PPG request? Letters of support from each of these organizations would be advantageous (Appendix 1). See Qn. 7. (e) of the Guidance Note.

The following organisations support holding a PPG workshop to develop a framework for establishing a collaborative project to address regulatory constraints to biopesticide research and development, which will be drafted into a full STDF Project Grant (PG) proposal with commitments from participating agencies. Letters of support are attached.

- CropLife Southern Africa
- Eswatini Environment Authority
- National Biotechnology Authority, Zimbabwe
- South African Bioproducts Organisation
- The African Agricultural Technology Foundation
- The International Biocontrol Manufacturers Association
- The Tropical Pesticides Research Institute, Tanzania
- The U.S. Inter-regional Research Project
- The United States Department of Agriculture
- The University Eduardo Mondlane, Mozambique
- The University of Zambia, Zambia

In addition to the above-listed institutions, discussions will also be held with regulatory and research institutions in other SADC countries to foster their involvement in the development of the full proposal. Ministries responsible for agriculture and trade will also be engaged to assure their participation and ensure the relevant trade-related concerns are factored into the development of the full proposal. Equally importantly, efforts will be undertaken to ensure broad government support. As already mentioned there exists a good opportunity for South-South cooperation between South Africa and other SADC countries and to this end consultations have been made with Mr Thilivhali Nephumbada (Technical Advisor, Agricultural Remedies: Department of Agriculture, Forestry and Fisheries, South Africa) who has confirmed that South Africa is willing to share its expertise with the other countries in the region. The proposed PPG workshop will involve regulatory officials from the various countries, Ministry of trade and agriculture officials and representatives of the various other institutions, as mentioned in various parts of this PPG application. Commitments to provide technical support for this PPG (and the resulting project) have come from the IR-4, and the United States Department of Agriculture (USDA). To contain costs efforts will be made to organise the PPG workshop on the margins of a SAPReF or SADC meeting, or other relevant meeting in the region. As already mentioned APAARI has offered to be a technical knowledge-sharing partner, based on its experiences in the Asia and Pacific region. Contacts for these organizations are listed below. In addition, a letter of support is included from industry groups (CropLife South Africa, The International Biocontrol Manufacturers Association and the South African Bioproducts Organisation).

Since the dates for these meetings are yet to be determined, and in to ensure the timely submission of the full grant proposal, the budget has been prepared for a possible scenario in which the consultative workshop is held independently of other scheduled meetings in the region.

4. How does this PPG complement and/or build on past, ongoing and/or planned national programmes and/or donor-supported projects? See Qn. 7. (f) of the Guidance Note.

A previously funded STDF Project in SADC (STDF/PPG/379), '*Promoting the effective participation of SADC Member States in the WTO SPS Committee*' noted that one of the strategies for the SADC

to build institutional capacity to comply with SPS measures would be to take advantage of already existing tools and approaches without starting from scratch. To this end, the harmonized guidelines prepared by the African Agricultural Technology Foundation AATF, with support from USDA-FAS (including IITA and COMESA) will be presented and discussed at the proposed project proposal writing inception meeting, with a view to adapting it to any unique circumstances of the SADC region. There have been discussions with Jason Sandahl of USDA to link up the activities of the proposed project to this initiative as well as the efforts of COMESA. While the AATF effort focused on microbial biopesticides, this PPG aims to include a regulatory framework for biochemical biopesticides such as plant extracts and minerals. Equally importantly, and as alluded to in the recommendations of this previously funded project, it will be necessary to ensure that countries are able to make the link between the proposed project interventions and compliance with SPS measures. This would begin with discussions on 'why' the SPS agreement is important, and thereafter the design of specific measures to aid compliance with SPS provisions, as opposed to merely enhancing biopesticide registration and commercialization as an end in itself. These discussions will be extremely critical during the consultative project proposal writing workshop to be organized in the event this PPG application is successful.

In a recent submission to the EU Commission requesting pest biocontrol options to be considered low risk substances, the [International Biocontrol Manufacturers Association](#) (IBMA) summarized the challenges facing industry as follows: "*Various issues related to authorisation of biocontrol agents, including review prioritisation, resourcing, level of expertise, lack of guidance documents, timelines to registration, costs of registration, etc. has resulted in the biocontrol industry taking decisions to abandon or delay submission of innovative products*". Another publication by [TECA](#) – a FAO web platform – on the development of biopesticide legislation in Africa concludes that: "*The early stages of biopesticide R&D are often undertaken in the public sector using public finances, but many potential biopesticide products fail to go beyond the laboratory or field-trial stage. Commercialisation is the key implementation pathway for biopesticides and failure to engage the private sector and a lack of market data may be amongst factors contributing to poor biopesticide uptake. However, the main constraint on progress is probably the lack of a legislative framework for registration and approval of biopesticides in much of sub-Saharan Africa, which has meant that it is effectively impossible to legally market biopesticide products for commercial use, despite the fact these may be based on organisms, and even locally-obtained strains or isolates, that occur naturally within the user countries themselves.*" Extensive consultations have, therefore, been undertaken in the development of this proposal with both IBMA represented by Mr. David Cary (Executive Director, IBMA) and FAO, represented by Dr. Lewis Hove (Coordinator, FAO Resilience Hub for Southern Africa).

Several organizations have produced guidance documents for biopesticide registration, but these are based on a regulatory regime intended for chemical pesticides. For example the [OECD guidance material for registration of microbial control products](#) recommends that regulators should look for information on, *inter alia*, mode of action, toxicological and eco-toxicological evaluations, host range testing and so forth. This information is expensive for companies to produce and can thus discourage the commercializing of biopesticides, which are usually niche market products. Therefore, the challenge for regulators remains the absence of an appropriate system to ensure that biopesticides are safe and qualitatively consistent, but which does not inhibit their commercialization.

Efforts at a regional level to address challenges pertaining to biopesticide registration include among others, the African Agricultural Technology Foundation (AATF)'s development of a [comprehensive guidance document](#) for the registration of microbial biopesticides in sub-Saharan Africa, upon which this proposed programme intends to build. The AATF report advances recommendations for policy/legislative action in circumstances where there is no existing framework, and it includes measures to address deficiencies where legislative frameworks are in place but are wanting in one or another respect.

In 2016, SAPReF held a workshop for the purpose of reviewing Regional Guidelines for the Regulation of Plant Protection Products in the SADC member States. The objective of the review process was to align the Regional Guidelines with the revised WHO/FAO International Code of Conduct for Management of Pesticides and to include biopesticides. The workshop was sponsored by the EU through the Regional Economic Integration Support (REIS) programme. The proposed

grant proposal will leverage on the efforts made thus far and the EU will be contacted to explore the possibility of providing funding support to the proposed project.

In a March 2018 meeting supported by the Food and Agriculture Organization, SAPReF identified regulatory challenges as one of the main barriers to pesticide research development and commercialisation. The meeting encouraged pesticide regulators from SADC member countries to highlight the challenges they face in registering biopesticides and thus the capacity development needs the FAO and other development partners could contribute to addressing. Members were also encouraged to continue finding ways of fast-tracking registration of biopesticides. This PPG has been developed with consideration of these issues and concerns. There have been consultations with the FAO (represented by Dr. Lewis Hove, Coordinator Resilience Hub for Southern Africa), SADC (represented by Mr. Esiaah Tjelele, Programme Officer Crops, Food, Agriculture and Natural Resources Directorate, SADC Secretariat) and SAPReF (represented by Mr. Loitseng Sebetwane, Chair SAPReF) and will continue to engage these stakeholders during the development of the full proposal. The resource persons at the aforementioned SAPReF meeting included Ms. Ronia Tanyongana, FAO Sub-regional Office for Southern Africa; Mr. Sina Luchen, FAO Sub-regional Emergency Office for Southern Africa; Dr. Christine Fuell, FAO – Rotterdam Convention Secretariat; Ms. Ivy Saunyama, FAO Sub-regional Office for Southern Africa; Mr. Khalid Cassam, FAO – Mozambique; and Mr. Esiaah Tjelele, SADC Secretariat’s Food, Agriculture and Natural Resources Directorate. All these resource persons will be engaged further in the development of the proposed project. Consultations and discussions will also be convened with Mr. Blaise Outtara, FAO Regional Food Safety Officer with an aim to build FAO support in advance of the relevant working group meetings in early 2019.

Overall, biopesticide regulation is a complex and dynamic field in the SADC region. The key challenge facing regulators is to develop predictive and efficient regulatory processes that ensure product safety and consistency without inhibiting commercialisation. This is especially vital for the many small and medium enterprises in this sector adversely affected by lengthy registration delays and disproportionate data demands, which may impede their willingness and ability to submit products for regulatory review. The proposed project will leverage on the efforts of these organizations to develop a harmonized biopesticide regulatory regime in the SADC, to ensure that more biopesticides reach the market, thereby diminishing disproportionate reliance on synthetic pesticides in agricultural production, enhancing trade prospects from the region.

Africa has a share of about 3% of the global biopesticides market (18 million dollars per annum). With the global biopesticides market growing and predicted to reach USD 6.60 billion by 2022 (from USD 3.22 billion in 2017), major multinational companies continue investing heavily in this field. Industry players and organisations including CropLife Southern Africa, the South Africa Bioproducts Organisation, and the International Biocontrol Manufacturers Association are supportive of this proposal. Should a favorable regulatory system be developed, these companies would play a significant role in processing more products for commercialisation through the regulatory systems.

IR-4 has been involved in several regulatory harmonization efforts, including in cooperation with Chile. IR-4 would be an integral partner in the proposed project to ensure that lessons and experiences from these initiatives feed into the proposed project. To this end extensive consultations have been held with Dr. Michael Braverman of IR-4. Dr. Braverman has also offered to lead efforts to bring West Africa on board for the full proposal.

5. [Have you discussed this PPG request – or funding for the project proposal which would result from it – with any potential donors \(bilateral, multilateral, Enhanced Integrated Framework, etc.\)? If so, provide details below and indicate potential sources of funding for the resulting project. See Qn. 7. \(g\) of the Guidance Note.](#)

The overarching goal of this project is to ensure that the SADC region has a biopesticide regulatory regime that allows for non-residue generating biopesticides to be easily brought to market. Local registrants (manufacturers of biopesticides) will be consulted during the preparation of the full proposal so that the concerns of industry are fully captured. Industry players and organisations including CropLife Southern Africa, the South Africa Bioproducts Organisation and the International

Biocontrol Manufacturers Association are supportive of this PPG and will also help to maximize the potential economic impact of this project.

USDA has committed to provide support to this PPG by providing time and travel for a pesticide expert to help design and direct the project. Once the project concept has been strengthened through support of this PPG, multiple partners will be included in the development of the full project grant. Several partners will be approached to support the project either in-kind or financially, including USDA, and participating biopesticide manufacturers. FAO will be requested to contribute guidance on regulatory policies so that this project compliments existing FAO efforts. Further collaboration with the UNIDO project "Capacity Strengthening and Technical Assistance for the Implementation of Stockholm Convention National Implementation Plan (NIPs) in Africa LDCs of the COMESA and SADC sub-regions," will be sought, pursuant of UNIDO's development of a draft regional strategy on production and application of biopesticides in the COMESA and SADC sub-regions. As mentioned in the preceding sections, consultations with FAO will continue and their information, comments and suggestions on the proposed project sought, to ensure the active involvement and support of the proposed project. Discussions to link up and develop synergies with the work undertaken by Chile/OECD on harmonized orientations and guidelines regarding biopesticides will continue.

There have been some initial positive discussions on the application with FAO (through Dr. Lewis Hove, Coordinator, FAO Resilience Hub for Southern Africa) in order to identify and explore linkages to FAO's work in this area. These consultations and collaboration will be taken forward in the work under the PPG. There have been similar discussions on the proposed project idea with the European Union (EU) through Massimo De Luca (Head of Trade and Economics) and Darryn Allan (Policy Officer, Trade and Economics Section), with a view to generating interest (and input into) in the programme and hence comprehensively exploring the possibility of obtaining EU funding for the project proposal that would be developed from this PPG.

6. Briefly explain how cross-cutting issues (e.g. related to gender, the environment) are relevant for this PPG and, if appropriate, how they will be addressed.

Women perform most tasks in smallholder agricultural systems and the use of synthetic chemical pesticides exposes them to potentially dangerous substances on a regular basis. Concern is not restricted solely to their direct exposure, since these chemicals can be transferred to children, the entire household and even more broadly. Conceivably, the reduction of off-target application of conventional pesticides will directly and indirectly improve the livelihood of women and their families in target countries by reducing unintentional synthetic chemical pesticide exposure and increasing the exportability and trade of smallholder crops.

By reducing the use of conventional pesticides in horticultural crops and reducing off-target applications, exposure to bees and other sensitive species in the environment will decrease. Although conventional pesticides are safe when used appropriately, in reality, good agricultural practices are not often followed in developing countries. In these cases, use of lower-risk biopesticides also protects the environment and provides ecological sustainability by conserving natural enemies and biodiversity.

II. IMPLEMENTATION & BUDGET

7. Who will take the lead in implementing this PPG? If particular national experts and/or international consultants are proposed, attach a copy of their Curriculum Vitae and record of achievements (Appendix 2). If no names are provided, the STDF will provide a shortlist of consultants if the PPG request is approved.

ICGEB will lead the implementation of this PPG. ICGEB will engage the technical expertise of the IR-4 and directly consult USDA, FAO and country experts. The PPG will facilitate the development of details and arrangements for project implementation. All partners will ensure that the PPG is used to develop a project that links to similar and related efforts in the target countries including FAO, CropLife South Africa, pesticide manufacturers, and exporter organizations.

8. In the table below, briefly describe the main activities to be carried out under this PPG and specify who would be responsible. Provide an estimate of the budget required (e.g. for national/international expertise, travel and DSA of consultants, stakeholder meetings or workshops, general operating expenses, etc.).

Activity	Responsible	Tentative date of Completion	Expected output
Designate contacts for participating countries at the next SAPReF meeting. PPG Consultative meeting (Discussions will begin remotely, and all ideas collated during the proposed meeting)	ICGEB IR-4 SAPReF	Week 8	Term of reference (TOR) drafted Participating institutions identified Key issues to be included in full project proposal.
Study to evaluate the most appropriate approaches to ensure project success.	ICGEB IR-4	Week 13	Potential impacts of the proposed project on trade outcomes.
Discussions with potential partners, private sector, international organizations, donors	IR-4 USDA SAPReF	Week 17	Capacity of partners and other projects to add synergy identified
Draft proposal	ICGEB IR-4	Week 21	Develop full project grant proposal for STDF
Continue planning for work in anticipation of potential project approval	ICGEB IR-4	Week 30	Study protocols developed

Budget

Activity	Responsible	Estimated Budget (US\$)
Expertise International Consultant: IR-4	Technical guidance by IR-4 to develop planning meeting agenda, lead discussions, identify interested participating countries, develop country team members, consult with participating experts to determine elements to include in the design of the project IR-4 advisor: 13 days @ \$600 per day = \$7,800	USD \$7,800
Stakeholder meetings and workshops <i>If appropriate, include travel of participants, hire of venue, facilitator, etc.</i>	Consultative workshop to put together elements of full grant proposal <ul style="list-style-type: none"> IR-4 airfare \$3000 IR-4 per diem (50% since accommodation provided) @ USD \$161 per day x 3 days x 1 persons = \$483 Accommodation for delegates (8), IR4, AATF, SADC and USDA (total 12) participating in meeting @ USD \$140 per day x 3 days x 12 	USD \$20,841 ⁴

⁴ Efforts will be made to organise the PPG workshop on the margins of a SAPReF or SADC meeting, or other relevant meeting in the region. It is therefore likely that the budget for the workshop could be substantially less.

	<p>persons = \$5,040</p> <ul style="list-style-type: none"> • Delegate conference package/lunches @ USD 40 for 12 x 3 days = \$1,440 • 1 Extra night and 1 extra 50% per diem for IR-4 representative due to long flight = \$ 140 + \$161 = \$301 • Per diems (only country representatives) (50% since accommodation provided): \$ 161 x 3 x 8 = \$3,864 • Visa fees for IR-4 representative = \$200 • Delegate flight costs @ USD \$500 x 7 (i.e. excluding South Africa who would not need air travel) = \$3,500 • Airport pickups for all delegates + ICGEB @ \$50 x 13 = \$650 • Venue cost @ USD \$750 x 2 days = \$1,500 • <p>*USDA to provide in-kind support for technical expert travel</p> <p>* Travel and accommodation costs of ICGEB representative: DSA (\$ 161 x 3) + Terminals (\$ 80) + Flights (\$ 300) = \$ 863</p>	
<p>General operating expenses <i>If appropriate, include telephone calls, photocopying, administrative assistance, etc.</i></p>	<p>Stationary, telephone cards, photocopies, internet, administrative costs</p> <ul style="list-style-type: none"> • IR-4 costs = 500 	USD \$ 500
<p>Project proposal compilation</p>	<p>ICGEB, 14 days at \$600 per day = \$8,400 (in -kind contribution) IR-4, 14 days at \$600 per day = \$8,400</p>	USD \$8, 400
Subtotal		\$ 37,541.00
Other costs (describe)	indirect costs at 10%	USD \$3,754.00
TOTAL		USD \$ 41,295.00

Appendixes

Appendix 1: Letters of support from each of the organizations supporting this proposal. (*Letters attached*)

Appendix 2: Curriculum Vitae and record of achievements for any consultants proposed to implement this PPG. (*CV annexed to IR-4 letter of support*).