STDF | STANDARDS and TRADE DEVELOPMENT FACILITY

STDF PROJECT GRANT APPLICATION FORM

The Standards and Trade Development Facility (STDF) offers grants for projects that promote compliance with international Sanitary and Phytosanitary Measures (SPS) requirements. Eligible organizations can apply for STDF project funding using this form. Applicants can request up to a maximum of US$1,000,000 for projects that have a duration of three years or less.

The STDF Working Group makes decisions on requests for STDF funding. The following types of projects are given favourable consideration:

- Projects relevant to the identification, development and dissemination of good practice in SPS-related technical cooperation, including projects that develop and apply innovative and replicable approaches;
- Projects linked to STDF work on cross-cutting topics of common interest;
- Projects that address SPS constraints through regional approaches; and
- Collaborative and inter-disciplinary projects focused on the interface / linkages between human, animal and plant health and trade, and benefiting from the involvement of two or more partners or other relevant organizations.

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.

Project Title	**Strengthening phytosanitary compliance and public private partnerships to boost seed trade in the Asia Pacific region**
Objective	To ensure that phytosanitary issues do not impede the trade of seed between these countries, phytosanitary capabilities match with global standards, and to boost public-private trust and partnership to ensure food security through availability of high-quality seeds
Budget requested from STDF	$899,335
Total project budget	$1,131,637
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	Cambodia Mr. Nigin Chhay, Ph. D Director General General Directorate of Agriculture. Ministry of Agriculture Forestry and Fisheries General Directorate of Agriculture, Phnom Penh, Cambodia

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	The Philippines Mr. George Y. Culaste, Ph.D Director, Bureau of Plant Industry Department of Agriculture, Manila, Philippines
	Thailand Mr. Pichest Wiriyapaha Director General Department of Agriculture, Ministry of Agriculture and Cooperatives, Bangkok, Thailand
	Vietnam Mr. Nguyen Quy Duong Deputy Director General Plant Protection Department Ministry of Agriculture and Rural Development Hanoi, Vietnam
Implementing Partners	**The Asia Pacific Association of Agricultural Research Institutions,** 182, Larn Luang Road, Pomprab Sattrupai District, Bangkok 10100, Thailand Tel: +66 987844464 **The Asia and Pacific Seed Alliance Ltd. (APSA),** 7th floor, IFRPD Building, Kasetsart University, Ladyao, Chatuchak, Bangkok, Thailand 10903 **CropLife Asia,** 20 Malacca Street, #06-00 Malacca Center, Singapore 048979 **International Seed Federation (ISF),** Chemin du Reposoir 7, 1260, Nyon, Switzerland **American Seed Trade Association (ASTA),** 1701 Duke Street, Suite 275, Alexandria, VA 22314 USA
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I. BACKGROUND & RATIONALE

1. Relevance for the STDF

The importance of agriculture in the Asia Pacific region cannot be overstated. According to the Asian Development Bank, 2.2 billion people in Asia rely on agriculture for their livelihoods. Seed trade is viewed by many countries in the region as a key driver of economic growth, and several countries aspire to be a regional or global seed production hub. At the same time there are developing and least developed countries in the Asian Pacific region that are developing skills and infrastructure to comply with international standards and agreements for global seed trade. Among pressing concerns include the lack of updated pest risk analysis (ISPM 2 and ISPM 11) for seeds and the level of compliance with standards for the international movement of seeds (ISPM38 and ISPM 45) and other international agreements, which severely hinders these countries' access to and prospects in the growing global seed market.

This proposal is relevant to the STDF mandate as it will be applied in developing and least developed countries as well as several other countries in the region lacking in the capacity or resources needed to comply with phytosanitary processes. The aim of this project is to assess the capabilities of the countries selected to carry out effective phytosanitary processes specifically for seed. It will address key SPS issues affecting regional and global seed trade, promote regional coordination and encourage collaboration among the countries to share their experiences and best practices related to SPS issues. This project will also promote public-private collaborations and will bring together public officials and members of the private seed industry under one forum to enhance SPS related compliance, which will enable the growth of the regional and national seed industries. The participating countries for this project are Bangladesh, Cambodia, Laos, Nepal, Philippines, Thailand and Vietnam. The project will also be supported by few other National Plant Protection Organisations (NPPOs) in the region such as Australia and New Zealand and during implementation the Asia Pacific Plant Protection Commission (APPPC) will also be involved.

In particular, this project proposes capacity building in participating countries for phytosanitary processes including: the updating of Pest Risk Analysis (PRA) lists implementation of international standards such as ISPM 38 and building capacity for adoption of electronic phytosanitary certificates (the IPPC ePhyto solution), For the country assessment of SPS capacity (Phytosanitary Capacity Evaluation (PCE) tool will be used where available, and in other cases a detailed discussion will be done with NPPOs for assessing the capacity gaps based on the mandate of the project . The results of PCE assessment are known for Nepal and Bangladesh only but for Nepal it was done in 2005 and did not cover ISPM 38. Therefore, there

is a need to collate in case the countries need to update or revise their national phytosanitary legislations and other relevant legal instruments.

The importance of public private partnerships cannot be overstated as the bulk of seed production is carried out by the private sector while the public sector, through the respective NPPOs are responsible for vetting and approving to ensure the safe import or export of seed lots. In addition, private-public collaboration is essential to facilitate the sharing of experiences and thus development and maintaining of uniform policies and processes to ensure seed trade is carried out efficiently.

Compliance with SPS processes, international standards and import requirements requires advanced seed laboratory testing infrastructure and resources, such as the ability to conduct specific assays to screen for seed- borne pathogens. In our focus countries, these resources and infrastructure are inadequate.

This project will be unique as it will bring NPPOs of the participating countries together with the private sector representatives through their regional and international seed associations in one forum.

The capacity to adopt and implement digital tools for certification of seed lots especially the electronic phytosanitary certificate or ePhyto is another important area this project intends to cover. The process for ePhyto adoption implementation is ongoing and in varying stages for participating countries. Nepal has started to exchange ePhyto certificates this year; Cambodia Philippines and Thailand have all registered to commence. Therefore, this project becomes very important with regards to the adoption and implementation of digital tools for phytosanitary certification. The project will facilitate capacity assessments of the selected countries and make recommendations in case upgrades are needed to successfully adopt and implement the ePhyto solution. It is acknowledged that several other projects in this area are being undertaken on this topic and it will be ensured that this proposal does not overlap with ongoing or recently completed projects but supplement and complement progress already made. Collaboration and coordination with the IPPC, APPPC and other organizations will be sought to guarantee success and avoid duplication of efforts.

STDF in the past has funded several projects in other regions on similar issues such as STDF/PG/543 (to enhance the capacity of the Ugandan fruit and vegetable sector to comply with phytosanitary requirements for export to global markets); STDF/PG/504 (an ePhyto solution- Enhancing safe trade in plants and plant products through innovation); STDF/PG/503 (Rolling out a systems approach globally); STDF/PG/502 (Rolling out phytosanitary measures to expand market access; STDF /PG/498 (Strengthening of Phytosanitary system in Guinea) and STDF/PG/481 (Strengthening Phytosanitary capacity for Plant Exports in Zambia). In

addition, STDF has also funded APAARI on an SPS project related to the Pesticide Residue Mitigation Through the Promotion of Biopesticides (STDF/PG/634). The proposed project will draw linkages and replicate success of the project in terms of the expected outcomes in the Asia-Pacific region specifically.

In the Asia-Pacific region there have been several relevant STDF projects worth mentioning, including STDF/PG/133 in 2007 which established the PCE tool for the Asia-Pacific countries and STDF/PG/432 implemented by the Australian Department of Agriculture which aims at developing regionally harmonized pest reporting framework. Moreover, STDF in the recent past funded STDF/PG/486 on increasing compliance and SPS measure to boost oilseed exports; STDF/PG/381 on SPS capacity building and knowledge sharing on Cocoa in SE Asia; STDF/PG/259, 246 and 170 on SPS capacity building in Vietnam, Cambodia, and Nepal, respectively.

It is to be noted that other organizations such as CABI, USAID and the USDA have also funded similar projects in the Asia region. Furthermore, CABI carried out a project on SPS compliance in Afghanistan. The government of Japan through the Japan ASEAN Integration Fund (JAIF) has also funded a capacity building programs in ASEAN countries to support market access for agricultural trade in the region. It focussed primarily on the diagnostic skills for the identification of pests and diseases, skills in monitoring and surveillance and improving border inspection programs. The project will also take note of the recommendations of such projects and gain insights from the findings.

In conclusion, this project proposal is highly aligned with STDF's contribution to increased and sustainable SPS capacity and its strategy benefit to the public and private sector in developing and least developed countries through better SPS policies and adoption of best practices because it responds to specific phytosanitary issues affecting seed trade in the region, while promoting regional collaboration and synergies across relevant government agencies and the private seed sector (seed companies) in ASEAN and South Asian countries, as well as with selected STDF partners and donors. Availability of better seed through execution of this project is also in line with STDF support to the SDG2 (Zero Hunger). Finally, it will facilitate the development of relevant partnerships that foster extensive benefits both regionally and globally.

2. SPS context and specific issue/problem to be addressed

A country's ability to access the international sector is defined by its ability to manage agricultural pests and diseases and having the required infrastructure to do so. South Asian and Southeast Asian countries continue to face numerous challenges in meeting the growing demand of food for its increasing population due to inherent challenges of the region. It is estimated that the region could lose 10-50% of crop production by the end

of the century due to climate change. Agriculture accounts for nearly 70% of the labour force in the Least Developed Countries (LDCs) and as per Food and Agriculture Organization (FAO) report (http://www.fao.org/3/a- y3997e.pdf) growth in agriculture has delivered more poverty reduction than any other sector in low-income economies. Agriculture accounts for 36% and 28% of the GDP of Cambodia and Laos respectively. For Nepal it is 25% and for Vietnam it is 19%. Although the contribution of Agriculture to the GDP is declining, it is still very important component of other countries selected in this project even though they have more diversified economies ranging between 9-12%. More people (up to 60%) depend on agriculture than any other industry in these countries (UNESCAP, 2008). Therefore, facilitating trade is necessary to reduce poverty in the Asia Pacific region. One significant challenge to trade facilitation is the difficulty to conduct business as indicated by the Enabling Business of Agriculture 2019. For example, Lao ranks 165 out of 183 in the ease of doing business indicators. Agricultural exports growth in least developed countries is also limited. Countries like and Laos, for example, though making significant progress in agricultural production, have not seen the corresponding growth in agricultural exports, which further indicates inadequate trade facilitation as one of the significant factors.

The governments in the region and donors of international fund have mostly focused on the streamlining of the SPS issues in agricultural commodities such as fresh fruits, vegetables, or meat. Therefore, addressing non-trade barriers such as SPS issues at the level of seed is particularly important as seed is certainly a precursor to high yielding agricultural economy.

Seed moves through many countries as part of the larger contemporary agriculture value chain. Starting with the breeding stage, seed is subject to testing and evaluations, to assess its adaptation in the intended regions of sowing and distribution. It is often multiplied in one country and processed in another, before it is eventually distributed globally. Every country along the international value chain has their own agriculture policies and SPS measures to mitigate and prevent bio-security risks.

Destination (importing) countries may have different import requirements that need to be considered at the time of seed production and prior to exporting, including for example, specific phytosanitary testing and declaration requirements, as well as registration of the exporter's variety with the importing country's Agriculture Department. Formal recognition by an exporting country's NPPO of import requirements itself does not equate to full compliance, and any additional increased expenses associated with compliance passed on to seed companies (not reflected in their initial strategic plan) may disincentivize further investment in that country's market.

Another challenge is that some NPPOs are not yet fully aware or do not possess the capabilities to implement the phytosanitary requirements as per the international standards (such as ISPMs 2, 11, 12, 38 and 45). This could result in rejections or the delays for seed import consignments, particularly when the exporter fails to fulfill the phytosanitary requirements as notified by the importing country. In addition, the presence of quarantine pests in seed shipments is one of main SPS issues. The countries or the seed companies operating in these countries may unnecessarily expend significant time and resources to test for the presence of pests that are not seed-borne in order to obtain the required phytosanitary certificate for seeds. This is due to the pest list not being updated to include only seed- borne pests or those transmitted through seed[1].

The ASEAN Sectoral Working Group on Crops has been working to streamline processes to comply with phytosanitary measures but their work is hampered by incomplete pest list databases, harmonized PRAs as well as the capacity for conducting risk analyses. Thus, this project will ensure active participation from the global seed industry with active participation from the International Seed Federation (ISF), Asia and Pacific Seed Alliance (APSA) and CropLife Asia (CLA). Furthermore, this project will create a unique forum to facilitate Public-Public and Public-Private collaboration, which will enable the targeted countries to upgrade their phytosanitary standards.

The project participants from the public sector are the NPPOs of Bangladesh, Cambodia, Laos, Nepal, Philippines, Thailand, and Vietnam. The participating countries are members of the World Trade Organization (WTO) and are party to the SPS agreement and contracting parties of the International Plant Protection Convention (IPPC). As discussed above there is a complex movement of seed around the globe and most of the vegetable and field crop seed in the countries are produced by the private sector. The project will facilitate the ability of the public sector to streamline SPS processes relating to seed by conducting harmonized PRAs. The capacity for conducting risk analysis and removal of non-seed transmitted diseases from regulated pest lists is in the direct interest of the private seed industry.

The project addresses gaps identified by the NPPOs in response to a questionnaire that was sent to the NPPOs and consultative meetings organized as part of the project preparation grant (PPG) process, and will build on projects carried out in the participating countries, including those initiated by STDF as well as by other funding agencies. In brief, the project will:

- **Work on improving the infrastructure and capabilities of NPPOs of the participating countries:** The response to the initial questionnaire and discussion during the consultative meeting demonstrated that there is a wide variation in infrastructure among NPPOs in terms of laboratories and plant

[1] In Bangladesh, updating of the regulated pest list was one of the main recommendations of the PCE conducted in 2007. Other recommendations included the updating of SOPs, manuals and documentations and documents. Since then, seed companies have started working jointly with the government specifically to discuss critical issues/concerns in improving the implementation of International Standards for Phytosanitary Measures including ISPM 38 which incorporates elements of the other ISPMs concerning pest management to facilitate the international movement of seeds.

quarantine facilities. This extends to their technical capacities and scientific resources to comply with ISPMs, especially for export and import certifications. Therefore, the project will take a country specific approach to identify and develop the best option to implement the ISPMs for each country participating in the project, irrespective of what other countries do.

- **Develop a web portal for regulated pests for seeds and import condition from each participating country** As stated in the ISPM 38, a pest risk analysis should consider whether the transmission of pests has been observed or confirmed to occur under natural conditions. Several seed crops are overregulated because NPPOs may not perform their PRAs in accordance with international standards, including ISPM38. An import phytosanitary requirement portal accessible by NPPOs of the region and international NPPOs, importers and exporters will promote exchange of relevant information, and support the drafting of fit-for- purpose PRAs and updates. Relevant information will be consolidated and made available in the English language, freely accessible to any trading partner and the private sector as a whole. The project will build upon an initiative by APSA to create and maintain the portal by linking countries' portal into one user-friendly resource. For countries in which information is not readily available in the English language, translation will be provided as part of this project.

- **Advocate the adoption of international standards and initiatives such as the ePhyto Solution**, developing recommendations for continuous policy development and capabilities to embrace new efficiencies in the SPS methods such as ePhyto (STDF/PG/504) and ISPM 38, among other international standards that will help in developing competitive seed markets, and reduce barriers to seed trade. During the PPG process, it was identified that the level of adoption of international standards e.g. ISPM 38 and digital tools such as ePhyto varies in the participating countries.
  Through consultative workshops during project implementation, efforts will be made to bring the seed industry and the NPPOs together, which will benefit the countries who are yet to fully adopt or implement international standards such as ISPM 38 and the ePhyto solution. To support this objective, engagement will be sought with local and international groups and their initiatives such as the IPPC ePhyto Industry Advisory Group (IAG), which the International Seed Federation (ISF) is a member and its representative is the Co-Chair of the group and the IPPC, among others.

- **Promote the involvement and investment of the private seed sector.** As mentioned earlier, this project will bring the NPPOs of the participating countries and global seed industry together. This will greatly contribute in creating a better understanding and trust between the NPPOs of the participating countries and private sector, who will be better informed of import conditions, and on the importance of SPS issues in market access. It will also contribute to capacity building of the NPPOs from global experts.

- **Facilitate lab accreditation programs of NPPOs for independent, private laboratories.** The authorization of third-party entities to perform

phytosanitary actions (as per ISPM 45) is required to increase the capacity of NPPO. Thus, setting standard procedures for lab accreditation by NPPOs and harmonizing testing methods are necessary to ensure that procedures and processes are standardized across all laboratories, which will make compliance with SPS requirements more efficient, ensuring the countries' farming sector gets high-quality seeds in a timely manner. At the same time, it will enable participating countries' NPPOs to keep pace with new SPS requirements and thus enhance seed trade. This project will bring together NPPOs and established private sector together to achieve these goals. Recently, The IPPC / FAO have recently adopted ISPM 45 (Requirements for National Plant Protection Organizations if authorizing entities to perform phytosanitary actions). This latest international standard will be used as guidance and tool to increase awareness of NPPOs during the implementation of this project.

In this proposal, we will be focusing on issues related to Pest Risk Analysis (PRA) (ISPM 2 and 11), international movement of seeds and implementation of international standards for seeds (ISPM 38), phytosanitary certificate (ISPM 12), and adoption and implementation of electronic phytosanitary certificate (ePhyto). In addition, we will also refer to ISPM 20 (Guidelines for a phytosanitary import regulatory system) and ISPM 29 (Guidelines on lists of regulated pests) when discussing other issues related to the import and export of seeds. To facilitate the implementation of international standards, all relevant IPPC Guides and e-learning resources will be considered viz: Export certification, Import verification, Guide to National Reporting Obligations (NRO), Managing relationships with stakeholders and e-learnings on PRA and e-learning on NRO.

3. Links with national/regional development plans, policies, strategies, etc.

This project will contribute to some of the components of the National Agricultural Policy, 2018 of Bangladesh such as the promotion of public and private sectors in seed production, quality and import. With quality seed import, export and strengthening of seed certification agency in focus, this project will contribute to the strengthening of phytosanitary measures, adoption of ISPM38, development and recognition of seed testing laboratories as per ISPM45. Women empowerment is also a component in the policy and discussed later in the project document.

The Cambodian government aims to make agribusiness 30% of GDP by 2025, maintain a private sector friendly policy environment and increase yields of key crops (https://opendevelopmentcambodia.net/topics/agricultural-policy-and-administration/). This project will assist in growing the seed business which will contribute to the agribusiness goals of Cambodia.

The capacity building, public private partnership and adoption of global standards achieved through the current project proposal align very well with the agricultural strategy of the Laos government (https://www.gafspfund.org/sites/default/files/inline-files/5.%20LaoPDR_strategy.pdf) especially the plan for poverty reduction and global integration. As discussed earlier, the adoption of global standards (ISPMs) will certainly assist the seed sector of Laos. A report prepared by Asian Development Bank also highlighted similar measures of capacity building

of public and private sector for the improvement of agriculture in Laos (https://www.adb.org/sites/default/files/institutional- document/480141/lao-pdr-agriculture-assessment-strategy-road- map.pdf).

This project has clear links to the objectives of agricultural development strategy 2015-2035 of Nepal by contributing to the improvement of seed, increasing income of farmers, improving access to markets, inclusion of women in agriculture. It directly contributes to the one of the four strategic components of competitiveness by development of private sector (https://www.fao.org/faolex/results/details/en/c/LEX-FAOC171433/).

A report from OECD analysed the Philippines agriculture policy (https://www.oecd.org/countries/philippines/title-agricultural-policies-in- the-philippines-9789264269088-en.htm). The policy focuses on the food security which can be addressed by ensuring the availability of high-quality seed. The Philippines Agriculture (PA) 2020, a medium-term strategic plan developed by National Academy of Science and Technology, Philippines also outlines steps needed for reducing poverty, increasing competitiveness of farmers. Access to better seed through the outcomes of this project would contribute to the above objectives of PA 2020.

The 20-year agriculture development plan of Thailand (2017-2036) has identified key strategic components which include improve farmer and their institutions to upgrade their productivity, efficiency, standards. The promotion of public-private partnership in agriculture is also one of the key strategic initiatives. Clearly, the present project proposal supports public- private partnership, improvement in efficiency (such as updated PRA list and portal) and process improvements like adoption of various ISPMs. Adoption of ePhyto very well supports the Ministry of Agriculture and Cooperatives (MOAC) digital agricultural strategy (https://ap.fftc.org.tw/article/1393).

In Vietnam, the Ministry of Agriculture and Rural Development (MARD) in 2018 announced a list of 13 national products to be developed in priority which included vegetables (https://www.oecd-ilibrary.org/sites/789c718e-en/index.html?itemId=/content/component/789c718e-en). These products are eligible for preferential support measures which include human resource training and market development. Both these measures are the focus of this project. This project focuses on the capacity development of NPPOs as well improvement of measures such as ePhyto, adoption of various ISPMs which will aide in the market development of seeds for Vietnam. The policy document also acknowledged the increased competition that comes with integration with global economy All the objectives of this project assist in competitiveness and adoption of global standards.

In summary, as discussed above, the project objectives and goals will significantly contribute to the broader agricultural strategies and plans of the participating countries.

4. Past, ongoing or planned programmes and projects

In Bangladesh, USDA/FAS has been working since 2012 to increase the country's ability to comply with international phytosanitary and food safety trade standards.

In 2018 phytosanitary capacity evaluation as per IPPC norms was also undertaken under a USDA/CABI project which also contributed to the dialogue on strengthening the national plant health system by providing capacity building recommendations to enable policy and regulatory changes. In 2021 USDA/FAS with the support of APAARI is assisting Bangladesh further to strengthen the institutional capacity its plant health system including, but not limited to, strengthening the national pest risk analysis system, national export and import certification system, and the National Plant Protection Organization (NPPO) structure processes. USDA/FAS also seeks to leverage its resources and collaborate with regional partners to further underscore the importance of MRLs in trade and the related capacities that need to be developed.

In Nepal, STDF project STDF/PG/170 was implemented by FAO, more than one and a half decades ago. The World Bank funded Project for Agriculture Commercialization and Trade (PACT) supported some equipments for the basic laboratories situated at the major quarantine offices situated at the different entry points. The World Bank supported Nepal India Regional Trade and Transport Project (NIRTTP) supported the construction of the Central Phytosanitary and Diagnostic Laboratory, the construction part has already been completed and the furnishing and installation of equipments is underway. The Nepal National Single Window is also being established and the Phytosanitary Part of the Single Window (NNSW) is at implementation stage, and necessary customization of the system is being performed. With the NNSW, Nepal has been already connected to the IPPC hub and issuing the e-phyto of which some customization work is ongoing. NIRTTP is shortly going to be closed.

The Strategic Road Connectivity and Trade Improvement Project, which is ongoing, is supposed to carryover the remaining part (equipments, some trainings), construction of Laboratory at one of the entry points, improvement of other laboratories. The PCE of NPPO Nepal is also underway with the support of SRCTIP and the technical assistance of IPPC/FAO. The real status of NPPO Nepal is being assessed and the actual need of support to NPPO Nepal will be revealed by PCE in the near future.

In the Philippines, currently, a cooperation project of the Bureau of Plant Industry (BPI) with the Animal and Plant Quarantine Agency (APQA) of the Republic of Korea to further strengthen and develop bilateral cooperation in the field of plant quarantine based on related international standards, guidelines, and recommendations is ongoing. Also capacity building on Efficient Approach for Insect Pest Identification using Remote Microscopy System Project of APQA with BPI is underway.

The Australian Department of Agriculture implemented STDF project STDF/PG/342 that aimed to develop a regionally harmonized pest information framework. Several of the beneficiary countries in this project are also included in this project proposal. The EU Systematic Mechanism for Safer Trade (SYMST) funded project in Lao PDR.

Among the participating countries for this project Cambodia, Laos, Thailand and Vietnam are also part of the Mekong US Partnership project (MUSP) for seed trade development supported by USDA. This activity is a component of the Seed Trade Capacity Building Project in the Lower Mekong Region funded under the Mekong-

U.S. Partnership (MUSP). The objectives are to strengthen and bring awareness to seed sector on seed trade capacities, rules-and science-based policy environments, foster cooperation and harmonization of seed policies among Lower Mekong Countries (LMCs) and promote public and private partnerships related to enabling environments for seed production and seed trade in LMCs. The priorities of this project covering to the plant variety protection, phytosanitary standards and seed certification system. MUSP and this STDF project will help to complement each other as the aim is similar in the area of phytosanitary standard harmonization. Therefore, the support from MUSP to this project is on the resource persons under a collaboration with the American Seed Trade Association. The bi-annual meetings are organized among LMCs countries to update on all capacity building programs.

This project will also support synergies to the work carried out and with the pest risk surveillance database that is being developed / used in STDF project (https://www.standardsfacility.org/PG-432) that aims to develop a regionally harmonized pest information framework and the EU's Systematic Mechanism for Safer Trade (SYMST) funded project in Lao PDR (same project as described above with focus on rice, watermelon, chili, basil) where ITC provides support to improve phytosanitary compliance.

5. Public-public or public-private cooperation

The countries chosen for this project are Bangladesh, Cambodia, Laos, Nepal, Philippines, Thailand and Vietnam. Therefore, this project will enable a rich public-public cooperation. Significant collaboration already happened as part of preparation of this project during the PPG meetings, in which NPPOs of participating countries shared updates on their respective SPS legislations, regulations and policies, identifying key areas of collaboration for consistent phytosanitary regulations among these countries. The NPPOs also identified key areas of infrastructure development and capacity building areas which can be supported during the execution of this project. It is expected that public-public partnerships will be further strengthened during this project. This project will have several face-to-face and online meetings, which will bring the NPPOs of the participating countries together and encourage adoption of best practices and harmonization of phytosanitary regulations, respectively.

The representation of Regional organization APAARI with and participation of global and regional seed associations -- ISF, APSA, ASTA and CLA -- ensures that this project will greatly enhance public- private cooperation in the region. One of the aims of this project, as mentioned previously, is the implementation of ISPM 45, which would facilitate the authorization (and accreditation) of private sector labs to carry out phytosanitary actions. This project will enable NPPOs representing the public sector to audit and accredit private sector seed testing laboratories, and thus reduce burdens on public sector resources, which may be inadequate or too stretched to keep up with ever-changing requirements. The private sector will bring to

participating countries the needed investment and knowledge on global advancements in SPS matters. Increased engagement and collaboration between NPPOs and the private seed sector will contribute to, the development of harmonized standards, the level of compliance for which will be highly coordinated.

6. Ownership and stakeholder commitment

This project has local ownership with active participation and support from the private sector. More importantly, the project engages the NPPOs of Bangladesh, Cambodia, Laos, and Nepal (least developed countries), as well as Vietnam and Philippines (lower middle-income countries) and Thailand (upper middle-income country). In addition to the participating countries, NPPOs from few developed countries – New Zealand and Australia- expressed interest to collaborate and serve as mentors in this project during the PPG consultation meeting conducted in July 2021. A letter of confirmation to this effect has been received both from New Zealand and Australia.

The project has been developed based on the needs and the outcome of discussions with NPPOs of above countries. Through the STDF PPG proposal process, the NPPOs of these countries were actively consulted with and engaged to identify and detail the challenges these countries face with respect to SPS issues. This process also served as an opportunity to keep respective NPPOs updated on the latest international developments related to phytosanitary compliance, especially with respect to the adoption of the ePhyto solution, as well as on the progress that has been made with respect to national and international programs for seed testing laboratory accreditation. This was achieved by organizing a one-day virtual consultation with the NPPOs under the coordination from APSA with active support from other industry organizations such as ASTA, ISF and CLA. Prior to the workshop, the NPPOs of each participating country were given a questionnaire that was developed in consultation with the key stakeholders. Through the responses received from the questionnaire, the NPPOs of each participating country were requested to make a presentation during the consultation meeting. This exercise resulted in the collation of valuable information, which identified areas of support that the participating countries need. APAARI, which is the project's main coordinator between the private sector, NPPOs and other key stakeholders, had a supervisory role to support the organization of the workshop and development of the questionnaire in consultation with industry partners.

The following government agencies participated in the consultation workshop made possible through the STDF PPG in July and September 2021. The major countries who have expressed their interest during PPG are Bangladesh, Cambodia, Laos, Nepal, Philippines, Thailand and Vietnam.

During the meeting, NPPOs of other countries such as India, Pakistan, Australia and New Zealand also participated in the consultation meeting as observers.

During the current project, we will be building the ownerships of the activities and outputs. The NPPOs of participating countries will conduct training, and engage in partnerships, networking and other activities concerning regional standard development.

FAO was consulted and engaged as part of the early stages of the project development process. The FAO Regional Office for Asia and the Pacific (FAO-RAP) through the Asia Pacific Plant Protection Commission (APPPC) which is the Regional Plant Protection Organization of FAO for the region will be consulted during project implementation, participants are expected to cooperate with the FAO, and develop linkages to relevant work of the organization, if necessary.

The success of the SPS measures cannot be fully achieved without active support and compliance from end users. Throughout the planning and preparation stages for this project, the seed industry, has been actively involved and supportive. The seed industry has been represented in this project through several industry organizations, namely, the ISF, APSA, and CLA, and ASTA with each organization playing a complementary role to ensure the successful outcome of the project. ISF will bring its global expertise and best practices from around the world especially in the implementation of ISPMs and ePhyto. APSA, being the regional seed association, with its extensive network of members, resources, and contacts throughout the region, will support to align the best practices as per the country requirements, while CLA, which is also regional organization, will provide useful links with other relevant agricultural sectors, including grower organizations. Commitment for technical and overall organizational support will be provided by APAARI.

II. PROJECT GOAL, OBJECTIVE, OUTPUTS & ACTIVITIES (LOGICAL FRAMEWORK)

7. Project Goal / Impact

The goal of the project is "Increased seed trade and market access for the Asia Pacific region". 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. This project will help build capacity of the participating countries' NPPOs by developing a process for SPS compliance via training and workshops. The project will enable the participating countries to develop their technical and functional capacities to implement new developments in the SPS process such as digital tools (electronic

phytosanitary certification e-phyto), authorization of 3rd parties to perform phytosanitary actions (i.e. private seed sector laboratories), and an updated regulated pest lists for seeds with relevant seed transmitted pests. It is expected that through this project, farmers may have further access to quality seed of new crop varieties that possess desirable traits, which in turn will contribute to higher incomes for the agriculture sector and positively contribute to the food security of the country. This increased seed trade will also lead to increased economic activity, investment and development of necessary infrastructure, training of scientists and technical staff, and will contribute to overall growth of foreign exchanges through higher seed exports.

In summary, this project will therefore, contribute to the Sustainable Development Goals (SDGs), especially with respect to poverty reduction and economic growth, with an emphasis on delivering technical capacity building as the primary means to achieve the SDGs.

8. Target Beneficiaries

As mentioned earlier, the participating countries for this project are Bangladesh, Cambodia, Laos, Nepal, Philippines, Thailand and Vietnam. Therefore, the project primarily focusses on least developed countries (Bangladesh, Cambodia, Laos, and Nepal) and lower middle-income countries (Philippines and Vietnam) as per the OECD list While Thailand is an upper middle income country but it will also be greatly benefitted by the interactions with other countries and representative of seed industry. Also Thailand is likely to host most of the meetings related to the project. This project potentially will have a cascading effect for the target beneficiaries. The primary beneficiaries of the project will be the NPPOs and their Officers, who will benefit through increased knowledge and capacity; seed companies, exporters and importers who will all benefit from increased seed trade; and last but not least, farmers, who will have increased access to different choices of high-quality seed of new crop varieties. Ultimately, the regional value chain will benefit from the availability of this seeds, which will be the basis for increased agricultural productivity.

Towards the end of the three-year period of the project, we will look to determine whether, and to what extent that the training and capacity building achieved during the project resulted in increased seed trade volume or value as well as availability of new varieties via a final report. With this, it will also be possible to calculate, using published data, if new varieties can in fact contribute to growth of the seed market. The efficiency of the SPS processes by accreditation of new seed testing laboratories can also be calculated by comparing the lead time and the capacity of the tests conducted. Moreover, an updated list of regulated pests for seeds will increase the efficiency of NPPOs and save costs to end users, as only relevant pests will be targeted.

(a) Gender-related issues

Women's role in the agri-food value chains is well known. From small scale production to harvesting, processing, storage, packaging and marketing, they play key roles in these areas whether for their households, community or in employment. Regardless of where they work or who they work for, women often work long hours and in poor work conditions. In employment, they most often have lower positions than men and receive low pay. Often, they are excluded in policy design and the impact of their contribution to the sectors they work in are usually not monitored.

In this project, capturing the participation of women will be important to understand the likely impact the project can make on women. Pest- and disease-free seeds will provide many opportunities/benefits for women and their families, which would also result in reduced costs of production, and increased production and productivity, which would have a multiplier effect across the seed value-chain, extending to production, marketing and trade throughout the region. Having good access to information and trade opportunities, will also be important for women.

9. Project objective, outputs and activities (including logical framework and work plan)

The immediate objective (purpose) of the project is the strengthening of the capacity of the NPPOs and their collaboration with the private seed sector (companies, labs) on phytosanitary standards. The objectives are consistent with the logical framework as described in Appendix 1.

This project aims to build and increase capacity of the NPPOs of participating countries in order that they have the necessary knowledge and capabilities with respect to global advancements in phytosanitary measures and procedures so their countries can continue to facilitate increased seed trade. Under this project, an existing public-private partnership platform for phytosanitary coordination will be strengthened and recognized. To achieve its objectives, the project will deliver technical and functional capacity development, including a series of trainings, workshops, and consultations, each building upon the other, and culminating with the development of country-specific regulated pest list for seed portal, assistance for the adoption and implementation of the ePhyto solution, and a scheme for the accreditation of private seed testing laboratories, which would thereby create a process to increase seed trade in the region.

The project will center around the following outputs, each with its own sets of activities:

OUTPUT 1: Specific needs regarding existing infrastructure and capabilities of the NPPOs of the participating countries are identified

This output represents the basis of the project. Based on the gaps found in the infrastructure and capabilities of the NPPOs, the activities of the project will be further defined. Therefore, it is likely that the activities of this project may be implemented slightly different in each country. It is expected that the least developed countries participating in the project will need more attention in closing of the gaps.

Activities
The following activities will be carried out under this output:

1.1 Analysis of the Validation Workshop for highlighting the action points (Detailed analysis of the capacity of NPPOs based on the response received on the questionnaires during the PPG) A detailed review of current known capabilities of the NPPOs of the participating countries will be carried out with existing information, as well as the result of PCE study of the countries where it exists and the response received on the questionnaires during the PPG. This activity will be the basis of the further engagement and consultation with the NPPOs.

1.2 Follow up meeting with the individual NPPOs of each country and in country assessment

The NPPO of each participating country will be contacted and engaged with in a series of discussions to understand the status of the country in terms of phytosanitary capacity. Questionnaire responses received during the PPG will be the basis for further detailed discussions and can be used in planning the activities based on the need of individual country. This activity will ensure that the in-country assessment is aligned with the NPPOs' expectations and provide a basis for the capacity building platform, infrastructure upgrades and future partnerships with the private sector.

1.3 Consultation group meeting involving all NPPOs and other stakeholders for final assessment of gaps

A consultation meeting will be held jointly with all participating NPPOs along with the private seed industry representatives. During this consultation meeting, further insights will be obtained regarding the gaps and capacity needs and a framework of engagement will be drawn, thereby creating a broad plan for the execution of the project. The involvement of the global and regional private seed industry, represented through their associations, will ensure that key areas can be addressed through public private partnerships strengthened from

this project. Since it will be the first meeting, it is proposed to be held as a face-to-face meeting provided that only fully vaccinated persons are allowed, and the guidelines announced by the Thai government should be strictly followed for travelling to Thailand.

OUTPUT 2: Creation of a portal of phytosanitary requirements in English and reviewed as necessary

Activities
The following activities will be carried out under this output:

2.1. Review existing regulated pest list for seeds for each participating country.

It involves meeting with the NPPO, obtaining the pest lists and detailed review by a Subject matter expert. The regulated pest list for seeds of each participating country will be analysed with the ISF regulated pest list as the benchmark. The list of regulated pests for seeds will be updated and pests that are not seed-borne or seed transmitted will be removed.

2.2. Review of the phytosanitary requirements and confirmation by NPPOs (it will be completed along with the activity 2.1)
The seed phytosanitary requirements of each country will be collated and compiled at a single place. Wherever possible, attempts will be made to harmonize the phytosanitary requirements among the participating countries. This compilation will consist of up-to-date documentation, requirements for sampling of consignments, laboratory identification of pests and phytosanitary treatments. Finally, the reviewed requirements will be confirmed with the NPPOs of each participating country.

2.3 Import and export phytosanitary certification requirements compiled

For this activity, it will require desk work and a final confirmation by the NPPOs involved that the compiled information is correct. All import and exports activities related to phytosanitary certification requirements for seeds from each participating country will be collated and compiled at a single place.

2.4 Prototype and finally fully functional portal of phytosanitary requirements

The designing of the portal prototype will be accomplished. The portal will then be populated with information collected from previous activities highlighted above. The portal will also be linked with the import/export databases of the NPPOs of the participating countries. The portal will be regularly updated as it relies on the information provided by the NPPOs. Awareness of the portal to the relevant stakeholders will be done through a defined communication strategy.

The portal will be open access, and initially hosted by APSA, with active collaboration with APAARI and NPPOs. Before the project ends steering committee will coordinate with IPPC / APPPC to decide on future hosting of the portal. A

provision will be made to provide access of this portal to the private sector.

OUTPUT 3: Building NPPO's knowledge on International Standards for Phytosanitary Measures (ISPMs)

Keeping NPPOs up to date about the international standards is the most important output of this project. The following activities will be carried out under this output:

Activities

3.1 Training on the relevant ISPMs such as ISPM 2, 11, 12, 38 and 45.

Capacity building workshops will be held as part of a regional consultation with participation of representatives from the private sector and NPPOs from the participant and developing countries. This interaction will serve as a good opportunity to foster Public-Public and Public-Private cooperation and collaboration. These workshops will especially focus on ISPM 38 and 45, the latter of which will be referenced in facilitating the creation of an NPPO-initiated seed testing laboratory accreditation scheme to utilize the services of private seed testing laboratories. A series of meetings (virtual or face to face), panel discussions, webinars, workshops and a regional platform meeting for status review and continuation of the process will help to facilitate an efficient program for capacity building of NPPOs on the relevant ISPMs.

3.2 Workshops on export certification and import verification

This will be a very significant set of activities to complete the output on the adoption of standards. Workshops will be held on export certification, import verification, and awareness on National Reporting Obligations (NROs). Workshops on managing relationships with stakeholders will also be carried out. The module will also include e-learnings on PRA and NROs. Efforts will be made to develop similar mechanisms among the participating countries with minimal variations

Output 4: The implementation of ePhyto is further facilitated in the region

4.1. Facilitation of self-assessment of the current phytosanitary certification process disaggregated by participant country

The capacity to adopt and implement digital tools for certification of seed lots such as electronic phytosanitary certificate or ePhyto is another important area this project intends to cover. It is an ongoing process for some of the participating countries. Further information can be found on the IPPC ePhyto portal https://www.ephytoexchange.org. Nepal has started to exchange ePhytos in 2021; Cambodia, Philippines and Thailand have all registered to commence. Through this activity, NPPOs will provide reports on their current phytosanitary certificate capacity and systems capable of producing electronic phytosanitary certificate. A regional meeting where the different NPPOs representatives (two from each member NPPO, 5-6 experts and local participants) will have the opportunity to share their experiences and challenges when performing the self-assessment will follow. Through participation in this meeting, it can be ensured that the assessments are fit for purpose, clear so follow up actions can be

developed accordingly without duplication of efforts.

4.2 Training on the relevant ISPM 12 (ePhyto) through online or face to face workshops

Based on individual country's needs, awareness and capacity will be increased through workshops, either online or face to face, while necessary recommendations will be made to support full adoption and implementation of the ePhyto solution.

4.3 Assistance on the "last-mile" implementation of ePhyto for countries that use ASEAN New Single Window (NSW)

Although the countries are reporting problems when using the ASEAN NSW, further assistance through online workshops will be provided to the countries if they continue with the ASEAN NSW. This will be complemented by at least one country adopting and implementing e-Phyto. Other organizations with similar activities in the region will be invited to share their experiences and if possible, to collaborate, e.g., UNESCAP.

Output 5. Public-Public and Public-Private Partnership platform strengthened and recognized

As discussed earlier in the project application, this project provides excellent opportunities to facilitate / foster Public-Public and Public-Private partnerships. One of the examples has been described in the activity of the output 3 on the implementation of ISPM 45 for seed testing laboratory accreditation. Several activities will define the output on partnerships, as follows:

Activities

5.1 Public-public and public-private coordination platform strengthened and recognised

Throughout the course of the project, several consultations will be held among the NPPOs of the participating countries, to which the private sector will be invited. This will provide a unique opportunity to engage NPPOs with experts from the private sector, represented through their respective national, regional, and international seed associations. APSA conducts annual regional phytosanitary expert consultations in which global experts from the seed industry, representatives of national seed associations and NPPOs of Asia Pacific Countries participate. The current APSA Phytosanitary Expert Consultation annual meeting will be this platform that will be strengthened and its Terms of Reference will be developed. To maintain this platform dedicated human resource and the actual meetings will need the financial resources as mentioned in the work plan and proposed budget The project Steering Committee will come up with a way forward in consultation with IPPC/APPPC. Also attempts will be made if required for resource mobilization during the project period to secure the resources for continuation of the platform after the completion of the project.

The private sector will also gain from this platform as it will be used by the NPPOs to update and consult them on significant policy developments as well as new regional phytosanitary standards.

5.2 Joint workshops conducted on awareness of investments made by

private sector in seed health testing

The overall purpose of this workshop is to bring awareness to NPPOs and exchange information about the quality systems and technologies at disposal of the private seed sector especially at seed health testing. Another goal is to bring awareness of the international standard number 45 (ISPM 45) which provides requirements for NPPOs if they decide to authorize entities to perform specific phytosanitary actions on their behalf including seed health testing. This workshop will bring the public and private sector together to set out the deliverables of the PPP within the framework of this project proposal.

5.3 Policy dialogue initiated for developing a 3rd party laboratory accreditation program (as per ISPM 45)

This activity will focus on the accreditation process by the NPPOs referring to ISPM45 for the independent private laboratories through consultations with the experts, who will be specifically invited. A pilot case study will be carried out in which at least one country NPPO will undertake the process of accreditation process of the private seed testing laboratory. Such case study will be drafted, detailing the PPP approach on implementing ISPM 45, and will be shared with the other participant countries. It is to be noted that the accreditation process of third-party laboratories may involve significant changes in the existing regulations in the countries, therefore, it is expected that the completion of the actual process to enable accreditation may go beyond the duration of this project.

Environmental-related issues

This goal of this project is to increase seed trade and market access for the Asia Pacific region. Excessive and unnecessary phytosanitary measures do lead to increased costs and potential delays for farmers to access high quality seeds. The scientific evaluation of the association between regulated pests and seed as a pathway will allow for the regulation of only the pests which may have the ability to cause economic and/or environmental consequences. Any environmental consequences that might arise from the establishment of seed transmitted pests would depend on the presence of suitable vectors to transmit the pest to growing plants of native species. If there are no suitable vector, then there would be no impact on native plant species. By having an updated list of which are the relevant seed pests, seed companies and NPPOs alike will be able to concentrate their resources on pest management options and surveillance tools in the case that will manage the risk but also taking into consideration its impact on the environment, such as crop rotation.

The increased seed trade made possible through the implementation of the recommendations and capacity building will result in the introduction into the participating countries of new disease-resistant and higher yielding plant/crop varieties from across the world. The increase in production through reduced crop loss and introduction of higher yielding varieties would also reduce the need to expand farms to keep up with demand, facilitating more environmentally friendly land management and thus reduced emissions of greenhouse gases. Global seed companies are adapting their products to combat the impact of climate change and address nutrition needs. But limited access to quality seed in many emerging economies persists, with the global seed industry reaching just a small number of

the world's smallholder farmers. This project has the ability to provide many smallholder farmers in the region the choice of obtain high- quality seeds.

10. Risks

In this project, the risks can be technical, policy based or administrative. Below are the key risks identified and the actions that will be taken to manage them

Risks	Impact	Probability	Prevention/Mitigation
Covid affecting implementation of activities in countries	Medium	Medium	-If Covid persist there will be only virtual meetings, trainings, for capacity building and exchange of information etc This will at least ensure capacity building at both individual and institutional level to prevent skills and information loss should there be negative impact by covid on human resources. -Based on the actual COVID- 19 scenario and partial travel restrictions meetings can also be held in a hybrid mode. - In case of face to face and hybrid mode meetings /events it will be ensured that venues selected can accommodate the participants for longer time (in case of any sudden covid upsurge). - Also it will be ensured that the venue selected are spacious enough to seat the participants at a distance and the physical interactions will be kept where absolutely necessary.
Declining interest of the countries to actively participate during the project	High	Low	The possible declining interest can be mitigated by proactive engagement of the NPPOs by the project team. It can be done through continuous meetings both online and face to face, making continuous awareness of the importance of this work to their countries

High turnover of the participating NPPOs	Medium	Medium	It is possible that the NPPOs nominated to participate in the meetings change thereby making it difficult for the continuity of the project. It can be managed by engaging the highest-ranking officers of NPPOs, starting from the inception of the project as well as starting with a large team of NPPOs. If some of the NPPOs leave during the project, others can manage, ensuring continuity of the project.
Response from the NPPOs is slow due to bureaucratic factors in public sector	Low	Medium	The project relies significantly on the inputs from the NPPOs such as their capabilities, existing processes, data needed for the portal. Therefore, it is possible that at times the response from the NPPOs is slow which could delay the progress of the project. It will be mitigated by constant engagement through emails and direct phone calls. As much as possible, the information needed will be sent in a format which is user friendly and takes the least amount of time.
Language Barrier	Low	Low	In a region as diverse as Asia and the Pacific, the local regulations are not always in English. One of the important requirements for the success of this project is to have all the information, requirements and regulations related to phytosanitary measures in English. It is possible that the translations provided by the NPPOs may not be highly accurate. This risk will be mitigated by engaging expert translators and cross checking of the translations by the NPPOs who are fluent in English.

Inability of the NPPOs to contribute towards policies – lack of political will, commitment of resources	High	Low	It is possible that the Government is slow to approve certain investments that are needed for the success of the project such as change from conventional to ePhyto system, or investments needed in lab upgrades despite the positive recommendation from the NPPOs. This risk can be mitigated by encouraging NPPOs to engage their local ministers early in the project. Whenever possible, the ministers or senior managements will also be invited for the opening of the capacity building sessions, and they will be made aware of the significance of the improvement in the phytosanitary processes.
Slow uptake of public private partnership	High	Medium	One of the key objectives of this project is to promote public-private partnerships. There could be challenges to build trust between the NPPOs and private seed sector. Regular meetings, exchange of information, local visits of NPPOs to the field sites and seed health laboratory will help mitigate the risk.
Slow progress in third party lab accreditation process by some NPPOs	High	Low	Through this project, the capacity of the NPPOs will be increased so they can review the accreditation process of the private seed sector laboratories. However, the progress in this regard may be slow due to lack of will from the NPPOs or from the higher levels in the government to allow private seed sector labs contribute to the phytosanitary approval processes. This risk will be mitigated by regular meetings to build trust, making NPPOs and the government aware of the benefits that third party accreditation will bring to farmers.

11. Sustainability

The project is based on national demand and priorities. The project is developed to include both technical and functional capacities of the NPPOs keeping in view the importance of South – South cooperation and regional collaborations and to encourage and promote sustainability.

The proposal is actively supported by relevant stakeholders of the Asian countries such as government agencies responsible for SPS management, and the private sector through letters of support. Besides, the role and involvement of APAARI

which is working for sustainable agricultural development in Asia Pacific countries, further adds strength on the sustainability of the project outputs through APAARI's Knowledge management programs and knowledge management focal points in its member countries. It is envisaged that even after the project period is over APAARI together with the representatives of the seed sector, APSA, CLA, ASTA and ISF will continue to network with all project-partnering countries for monitoring the appropriate utilization of capacities developed, and on further resources and follow-up needed in the participating countries.

The gains from the execution of this project are sustainable. An example is the setting up of processes for third party accreditation of private sector seed health laboratories which will eliminate the bottle necks that current exist when trying to export seeds because there is only one NPPO- accredited lab in the country. It is anticipated that many countries will update their policies to include accreditation of labs of the private sector. The countries would have already invested in the infrastructure and gained from the capacity building achieved through this project. In fact, the outcomes of this project will become a benchmark or baseline for future improvements for the NPPOs of the region.

As discussed above, there are certain risks to the successful outcome of this project. Ensuring continuity is one of the risks. There will be a need for constant updating of portal, which can be only achieved through regular inputs from the NPPOs. The portal will be hosted by APSA initially, but APAARI and APSA will continue to explore the possibility of APPPC hosting the portal as the project nears completion. The relationship that APAARI, APSA, ASTA, CLA and ISF currently enjoys with the national, regional and international organizations will be further strengthened by the successful completion of this project, which will ensure that a channel of discussion and exchange of information will carry on in the future. The investments that the governments will make on IT infrastructure, for example, can only be further built. It will not revert to its original state.

It is highly likely that once benefits are realized by stakeholders and end users i.e., farmers getting high quality seed and the country eventually enjoying better productivity, increase in exports and better prices for farmers, governments will have strong incentive to fund initiatives to further build upon and improve the processes.
APAARI and partners (APSA, CLA, ASTA and ISF) are committed to continue to spearhead these developments and seek funding from other donors. In fact, we envisage that more countries would like to join similar programmes to improve the processes in their countries and hence the opportunity to further advance the gains of this project.

III. BUDGET

12. Estimated budget

APAARI will implement the project. It will be in charge of the project management, will lead the logistical implementation and will engage technical expertise of associated partners (APSA, CLA, ASTA and ISF) through sub-contracts, and country technical experts through direct consultation as and when required.
APAARI will be responsible of the development of details and arrangements for project implementation, seeking collaboration from associated partners. All

partners will ensure that the project's outputs complement efforts in the target countries organizations (including, CLA, APSA ISF, exporter organizations, etc).

A detailed breakdown of the total project budget is included in **Appendix 3**. It has been prepared on the basis of the outputs identified through a consultative process, and the resources needed to complete the specified activities. The budget includes expenditures for expertise, travel, training, workshops, project management, general operating expenses, communications, etc. The total amount requested from STDF is USD $899,335 out of the total project cost of USD $1,131,637.

13. Cost-effectiveness

There are seven countries involved in this project, so the per-country cost of this project is actually very low. All these countries participate in the Annual Phytosanitary Experts Consultation organized by APSA. Therefore, whenever possible, the meetings related to this project will coincide with the APSA Phytosanitary Expert Consultation to reduce travel costs.

The current pandemic has shown that effective meetings can be held online. Therefore, several of the proposed meetings especially in the first year of the project is very likely to be held online. Based on the COVID-19 situation, further activities may be held online or face to face.

This project seeks to build capacity on several SPS processes and harmonization of these processes across the participating countries. Such measure will eventually lead to resource optimization, save time and costs as a result of adoption of digital tools such as ePhyto will generate a significant saving of time and cost in clearing seed lots at the point of entry. The development of the portal will save significant time and resources for the end users as import requirements and an updated pest list for seeds are available to all relevant actors across the supply chain providing clarity of phytosanitary measures. It will also have a global impact in terms of cost effectiveness. Similarly, implementation of different ISPMs such as ISPM 38 will result in a more predictable international movement of seeds, implementation of ISPM 45 will result in more labs being accredited for seed health testing reducing bottle necks on the movement. These developments will bring significant increase in efficiency apart from being cost-effective. In contrast, keeping the status quo without this project will continue to have the challenges of paper phytosanitary certificate and slow processes for testing and clearing of samples.

IV. PROJECT IMPLEMENTATION & MANAGEMENT

14. Implementing organization:

The Asia-Pacific Association of Agricultural Research Institutions (APAARI) will be the implementing partner in close collaboration with the International Seed Federation (ISF), Asia and Pacific Seed Alliance Ltd. (APSA), CropLife Asia (CLA) and American Seed Trade Association who will provide technical support and expertise and assist in coordination. APAARI was founded in 1990 by a group of UN Member States in the Asia-Pacific region at the initiative of the Food and Agriculture Organization of the United Nations - Regional Office for Asia and the Pacific (UN FAO-RAP). APAARI's some of the important ongoing activities and list

of achievements and record of financial probity is attached **(Appendix 5).**

15. Project management

APAARI will designate one of its staff to be the Project Manager from the inception of the project who will look after the stakeholder's routine communications, functional component and all the operational matters. In addition, the Project Manager will, organize the various need-based workshops and capacity building programs, application of a knowledge management strategy for stakeholders, keep track of the progress and in firefighting with routine operational matters. Besides, the Project Manager will seek technical and managerial advice from all the partners on regular basis. This will help the key technical players to be well informed and will allow them to play their technical and advisory role in a much efficient manner. The project manager will be someone with project management skills across various countries and a sound background to understand the technical matters with ease.

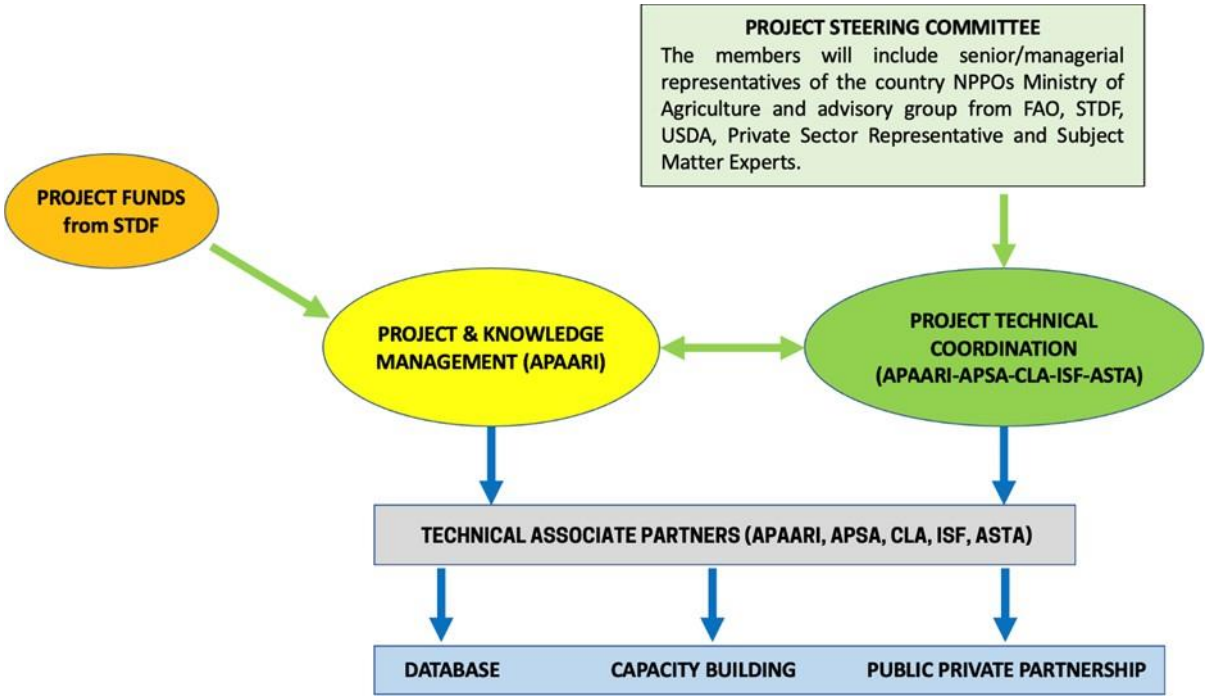
The logistical and financial aspects of the projects will be managed by APAARI. A project staff will be tasked with daily operational activities. The daily operational activities are not limited to administration but will also include signing of subcontracts with project partners, making preparation for trainings such as purchase of airline tickets, contracting with hotels, arranging local transportation, etc. The project staff will help make funding transfers to the relevant participating country agencies or institutions. The project staff will work under the supervision of the APAARI Executive Secretary and work closely with the technical coordinator and other collaborators. The project staff will prepare quarterly, annual, and final financial reports with support from all the technical associated partners.

Wherever possible, for each country conducting regional trainings, workshops etc., APAARI will be responsible for all arrangements of logistics such as flights and accommodation. Financial transfer will be made by APAARI to relevant NPPOs of the participating countries for any other logistics expenses where it is not possible for APAARI to make arrangements. The transferred funds should be used for the purchase of petty items, upgradation of online meeting platforms such as Zoom platform wherever needed, for establishment of contracts, and for other necessary reimbursements. Recipient agencies or institutions will provide itemized expenses to the APAARI at the earliest reasonable time upon purchases or upon completion of services.

A Project Steering Committee (PSC) will be formed from a combination of each participating country's contact point, APPPC, FAO, STDF, USDA, Private Sector representatives (ISF, APSA, ASTA and CLA) and subject matter experts. The members are from SAARC and ASEAN member countries so these organizations will be represented by default. Independent experts from these regional organizations will be invited for key meetings. A Terms of Reference of the PSC will be drawn by collective decision to specify the frequency of the meetings, deciding the agenda items etc. The technical associated partners, with the support of APAARI and APSA, will report on the progress of the project to the PSC.

Administrative support will be provided by APAARI and technical expertise will be drawn from all the project partners (APAARI, APSA, CLA, ISF, ASTA), and also from New Zealand, Australia and from experts within ASEAN and SAARC, whenever

feasible. In some cases, outside consultants will be necessary to perform the highest level of technical guidance. However, all actual work will be done by the ASEAN and SAARC member states themselves and any outside consultants or experts will only provide supervisory roles – the work and outcomes of this project will be that of the ASEAN and SAARC member states.



Program Management and Knowledge Management (KM): APAARI will be responsible for the management of the project, as well as coordination of KM activities. The technical associated partners will assist in coordinating technical activities for meetings to coincide with the APSA Phytosanitary Consultation Meetings, APPPC meetings and of other stakeholders.

Logistics: Participating countries will help, as much as possible, to provide the logistical support for the project. For example, if a country volunteers to host a regional training, a point person from that country will help identify and secure training facilities, decide local transportation, identify lodging possibilities, etc. in cooperation with APAARI.

Expertise from ISF and APAARI and their partners will be utilized, and need- based Consultants will be recruited.

V. REPORTING, MONITORING & EVALUATION

16. Project reporting

Reporting will be done in line with the work plan schedule. Every 6 months, a progress report of the activities and outputs will be generated and sent to the STDF, using their template. Reports of workshops and other activities implemented during this period will also be incorporated.

The project staff will work closely with the Technical associated partners and other collaborators to prepare progress reports and final project report that monitors project indicators and measures. The Project Steering Committee will consider

Progress Reports and will advise on any modification to the project plan, which will be discussed with STDF.

17. Monitoring and evaluation, including performance indicators

The logical framework developed by the project will be used for monitoring and evaluation. The log frame lists the key indicators (Annexure 1) and targets for the project team to monitor and measure the progress and changes achieved by the project at various levels – activity, output, outcome and impact level though it is worth noting that, it would be difficult to attribute 100% achievement at the impact level directly to the project, as many other factors and conditions aside from the project, will also contribute to this impact.

Both quantitative and qualitative indicators will be used. Quantitative indicators are straightforward but qualitative indicators will involve describing and reflecting on progress and changes achieved. The use of the different indicator types will allow for triangulation of data from multiple sources.

A variety of data sources will be used to measure progress and expected changes. At the activity and output level, primary data will be used while at the outcome and impact level, secondary data would also be required. Data sources may include research data, surveys, meeting reports, training reports, consultants' reports, agency reports, online information and official statistics.

For monitoring, project partners will report on progress and achievement in six-monthly progress reports and end-of-project reports. Progress and milestones will also be reported in the project's reports (inception, progress, final).

The project MEL is link to the STDF MEL Framework through selected standard indicators identified by the STDF MEL. The indicators are listed in the logical framework in Annexure 1. A performance indicator matrix will be developed to capture data and report on the STDF indicators.

APAARI will lead the activity on MEL with support of the Technical associated partners. The STDF Monitoring, Evaluation and Learning Framework will be followed[2]. At the project mid- point, the Technical Coordinator will conduct a follow-up survey to measure progress. At the end of the project, APAARI will consult with the trainers and experts to identify progress made and determine if the countries are prepared to initiate future projects on their own. This will be the ultimate measure of the project's capacity building success.

[2] See: STDF_MEL_Framework_Final_English.pdf (standardsfacility.org)

18. Dissemination of the projects results

The project will develop a KM Strategy that will include five main pillars to disseminate the project results. The strategy will take care of information management, facilitation of stakeholder engagement, functional capacity development, communication and outreach, and dissemination of project results to the project partners and other relevant stakeholders in the region. More defined activities, indicators and expected outputs will be developed at the inception workshop and refined by the results of the baseline study.

The following four areas will be the key pillars of the project KM strategy to facilitate dissemination of the project results, changes in mind-sets and transition towards improved phytosanitary measures

1. Information management: Coordinating knowledge outputs based on the project's collected data, information, and analytical activities through the generation of knowledge products, such as information leaflets on safe trade and consumption, practical guidelines and tools in local languages, and policy briefs targeting different stakeholder groups of the project e.g., farmers, NPPOs, industry associations and seed companies,

2. Engagement: Creating interactive face-to-face and online learning environment for project stakeholders and the drivers for change in phytosanitary measures with opportunities to share good practices, experiences, and lessons learned in compliance with existing trade standards; learn about innovative processes and tools, their application and evaluation; and explore new markets for seeds. For example, webinars will be used for online discussions, and innovative knowledge-sharing techniques will be integrated in technical events to promote learning and collaboration.

3. Capacity development: Integrating the development of functional capacities, such as interpersonal and communication skills, entrepreneurial skills, and KM and analytical skills to the planned technical and knowledge-sharing events, to enable: (i) participating producers to better utilize the newly acquired technical skills by empowering them to negotiate better contracts, interact with other value chain actors and engage in political process regarding safety of agri-food production and consumption; (ii) industry actors to better manage industrial relations with farmers and government bodies and enhance their collaboration; and (iii) policymakers and regulators to better understand (navigate the complexity of) the evidence and knowledge created through the project's efforts to improve phytosanitary measures and related policy implications. Various KM tools and processes developed through the EU-funded Capacity

Development for Agricultural Innovation Systems (CDAIS) project will be used to develop these capacities in the context of the planned technical events.

4. Dissemination, communication and outreach: Developing a more supportive knowledge-sharing infrastructure to speed up the dissemination of project-generated information and knowledge. This will be done through SPS portal development creation of a webpage devoted to the project activities and outputs on the APAARI website and using APAARI social media (including Facebook, Twitter and LinkedIn) as the project's main tools for outreach and public communication. Communications products may include news items, photos, videos, web updates and social media posts (using #STDF and #SafeTrade). In addition to reporting on project progress and milestones, an emphasis will be placed on producing human-interest success stories. A new online newsletter related to the project will also be designed and disseminated to all project stakeholders with project news, activities and results on a six-monthly basis. The project resources will be linked with knowledge and communication tools of the project partners and other relevant existing networks to enable increased outreach and learning. Press releases will be prepared on key project events for a widespread outreach.

ATTACHMENTS

Appendix 1: Logical framework (see attached template)

Appendix 2: Work Plan (see attached template)

Appendix 3: Project Budget (see attached template)

Appendix 4: Letters of support from organizations that support the project request

Appendix 5: Written consent from an STDF partner that agrees to implement the project ***OR*** evidence of the technical and professional capacity of another organization proposed to implement the project.

Appendix 6: Terms of Reference for key staff involved in project implementation

APPENDIX 1 - LOGICAL FRAMEWORK

Project Description	Measurable Indicators	Source of Verification	Assumptions and risks	STDF Programme Indicators[3]
GOAL **Increased seed trade and market access for the Asia Pacific region**	• About 30-50 % increase in volume of seeds exported disaggregated by participant country • An average with a maximum of 50% exports increases of the products disaggregated by participant country within 3 years from project completion. • About 370 m USD may increase in value of exports in 3 years only from southeast Asia in export of vegetable seeds[4]. • One new market accessed at least during the project period.	• Export statistics from participating countries • Online information, such as SPS Notifications, ePhyto website, OECD reports and other online sources of information will be monitored to see if the problems still appear as trade issues.	• NPPOs are committed to strengthen their own capacities and to collaborate among each other regionally. • Private sector is engaged and committed to work together with NPPOs on phytosanitary issues • Target markets continue demand of seeds from the Asia-Pacific region. • NPPOs in the region have insufficient resources to support strengthening their capacities. • Political considerations prevent sufficient collaborative efforts.	• x U$ value of exports for target HS code products and target markets (i.e. regional, intra-regional, global, etc.) • x Firms with an increase in exports, disaggregated by gender and size of firm • Evidence of market access and exports/imports directly facilitated through STDF support, with particular attention to climate change,

[3] These are the STDF programme indicators this project contributes to. The frequency of reporting is to be defined separately. Please contact the STDF team for further guidance on reporting these indicators.

[4] The value is extrapolated from the estimates made south east Asia vegetable sector export only where 112 M USD has already been projected to increase per year. A conservative 10% has been added as the positive impact of the project on the known value to reach to the figure of 370 m US$. (https://www.mordorintelligence.com/industry-reports/seed-sector-analysis-south-east-asia). The total value eventually will entirely depend upon the countries involved, the nature of seed exported and the change in global seed markets with time

				environment, gender and inclusion • x markets accessed
Immediate objective (purpose) - OUTCOME 1. Increased capacity of NPPOs to meet *phytosanitary standards*	• # of NPPOs (countries) implementing/ adopting relevant ISPMs for the movement of seeds, especially ISPM 2, 11, 12, 38 and 45. • Proportion of participating countries who vet the regional portal • Number of end users from the seed industry who utilize the portal disaggregated by country, gender, and type of business. • Level of satisfaction of seed industry actors with the portal • At least one participating country adopts the ePhyto solution (i.e., exchanges certificates electronically) by the end of this project. • At least one Case Study developed, detailing the PPP approach on implementing ISPM 45 • Number of trained personnel accurately mapping the seed transmitted pathways of	• Information provided by NPPOs. • All the NPPOs. Further vetting will be sought from FAO-RAP. • Survey outcomes • Capacity built nationally and number of electronic certificates exchanged • Capacity built, Letter of commitment, number of workshops organized • At least one country agreed to participate and to define the PPP approach	• NPPOs timely provide relevant information. • Active participation of NPPOs in the capacity building workshops. • Active Public Private interactions through the APSA Phytosanitary expert consultation.	• # of SPS non-compliance alerts/notification • # of STDF initiatives and PPGs/PGs contributing to changes in SPS legislation, regulation, policies, strategies, structures and/or processes, including attention to cross-cutting issues (climate change, environment, gender, inclusion) • Evidence of improved implementation and enforcement of food safety, animal and/or plant health measures for trade, with

	pests and updating regulated list of pathogens that are seed transmitted.			attention to climate change, environment, gender and inclusion • Evidence of uptake and application of good practices and knowledge products produced by STDF to inform and support SPS capacity development led by global / regional / national bodies • # of people reached (disaggregated by women/men and geography/region) with STDF good practices, knowledge products

OUTPUT 1 **Specific needs regarding existing infrastructure and capabilities of the NPPOs of the participating countries are identified**	• A country assessment prepared for each participating country current capacities and needs for capacity building for phytosanitary requirements – will include a PCE (if not current)	• Assessment / report for each country	• Timely cooperation by the NPPOs, in kind support from the private sector	• # and type of STDF knowledge products completed/published
OUTPUT 2 **Portal of regional phytosanitary requirements created in English and reviewed as necessary**	• Updated list of regulated seed pests disaggregated by country, with the removal of all non-seed transmitted pests. • Regional Portal developed (prototype) • Freely available go-live portal of phytosanitary requirements in English, within 6 months of the project initiation	• Information received from Output 1 • Confirmation of accuracy by the NPPOs • Report submitted by the consultant • Active and functional weblink.	• Accurate translation of the existing phytosanitary requirements if not existing in English • Upgrade of existing IT capabilities to host functional portal • NPPOs conduct of PRA based on scientific evidence relating to seed being a pathway in a specific crop species. • Delay of pest list updating by NPPO and delay of imports and exports	# and type of STDF knowledge products completed/published
OUTPUT 3 **NPPO's knowledge built on**	• Number of NPPOs trained disaggregated by ISPMs and by country	• Online and face to face meetings proceedings, pre- and post-workshop surveys and	• Active commitment by the NPPOs	• # of people reached (disaggregated by women/men and geography/region) with

international standards for Phytosanitary Measures (ISPMs)	• Number of total individuals trained disaggregated by gender, type,ISPMs and country. • Training modules developed • % increase in knowledge of trained NPPOs	compilation of the replies received. • Feedback from the private seed industry		STDF good practices, knowledge products
OUTPUT 4 **The implementation of ePhyto is further facilitated in the region**	• Numbers of readiness assessments for ePhyto uptake conducted. • Number of electronic certificates exchanged using the ePhyto solution disaggregated by participating country	• Confirmation by the IPPC about the countries exchanging ePhyto. • Online and face to face meetings • Number of Pre and Post workshop surveys conducted and compilation of the replies received	• Policies adopted by the government of participating countries. E.g the country must agree in principle to adopt ePhyto, only then the capacity building of the NPPO can take place. • Existing infrastructure and commitment from the government for the necessary investment and upgrade. E.g. the government must agree to invest in the necessary infrastructure needed to exchange online phytosanitary certificates	

OUTPUT 5 **Public-Public and Public-Private Partnership platform strengthened and recognised**	• Existing PPP platform recognised with a ToR (Terms of Reference) • Number of regional meetings involving NPPOs and private seed sector. Communique of agreement on key priorities by public and private sector is developed • At least one joint workshop to be commissioned in one country on phytosanitary measures in PPP mode	• Face to face meetings, pre- and post- workshop surveys, outcome of the project conducted under the PPP mode	• The NPPOs should be willing to work with the NPPOs of other countries and adopt best practices of each other. • Both public and private sector should be willing to identify and conduct a mutually agreed project on SPS measures. The PPP should continue after the completion of the STDF project	•

ACTIVITIES						
OUTPUT 1: Specific needs regarding existing infrastructure and capabilities of the NPPOs of the participating countries are identified						
Activities/ Year	1	2	3	Indicators	Source of Verification	Assumptions and risks
1.1 Analysis of the Validation Workshop for highlighting the action points (Detailed analysis of the capacity of NPPOs based on the response received on the questionnaires during the PPG)	Q1			• Report of the action points for each NPPO well defined based on the PPG output.	• Pre- and post-workshop surveys and evaluations of trainees' knowledge	• Providing questionnaire response in time by the NPPOs.
1.2 Follow up meeting with the individual NPPOs (Meeting with the individual NPPOs of each country and in country assessment)	Q1 - Q2			• Development of a project webpage with continue reporting of activities	• Meeting reports	• Nomination of the participants by the NPPOs of each country
1.3 Consultation Group Meeting (Group Meeting involving all NPPOs and other stakeholders for final assessment of gaps)	Q2			• Consolidation report of the Group Meeting.	• Feedback from the participants including private seed sector	• Availability and active participation by the NPPOs in the consultation meeting
OUTPUT 2: Portal of phytosanitary requirements created in English and reviewed as necessary						
Activities	Y1	Y2	Y3	Indicators	Source of Verification	Assumptions and risks

2.1. Existing regulated pest list for seeds reviewed for each participating country. (It involves meeting with the NPPO, obtaining the pest lists and detailed review by a Subject Matter Expert))	Q2 - Q4	Q1		• Pest list from each country to be collated and compiled at a single place.	•Review of existing guidelines and regulations at the website of the participating countries • Meeting reports • Feedback from the end users.	• Responses from the NPPOs to be received within the requested timeframe. • A plan to upgrade the facilities to host the portal
2.2. Phytosanitary requirements reviewed and confirmed with the NPPOs (it will be completed along with the activity 2.1)	Q2 - Q3			• Phytosanitary requirements from each country to be collated and compiled at a single place.	• Review of existing guidelines and regulations at the website of the participating countries • Meeting reports • Feedback from the end users.	• Responses from the NPPOs to be received within the requested timeframe. • A plan to upgrade the facilities to host the portal
2.3 Import and export phytosanitary certification requirements compiled (It involves desk work, final confirmation with the NPPOs)	Q3 - Q4			• Import and export phytosanitary certification requirements from each country to be collated and compiled at a single place.	• Existing guidelines and regulations at the website of the participating countries • Meeting reports • Feedback from the end users.	• Responses from the NPPOs to be received within the requested timeframe.
2.4 Prototype and finally fully functional portal of phytosanitary requirements	Q3 - Q4	Q1 - Q2		• NPPOs and private sector end users will be able to use the database	• Existing guidelines and regulations at the website of the participating countries	• Responses from the NPPOs to be received within the requested timeframe.

					• Meeting reports • Feedback from the end users.	
OUTPUT 3: NPPO's knowledge built on international standards for Phytosanitary Measures (ISPMs)						
Activities	Y1	Y2	Y3	Indicators	Source of Verification	Assumptions and risks
3.1 Training on relevant ISPMs (Workshops online and face to face)	Q4	Q1 - Q4	Q1	• Status report on the adoption of relevant ISPMs by each country • Workshops (online and face to face)	• Progress achieved between status reports	• Active support from the governments to commit to necessary infrastructure • Active cooperation by the NPPOs
3.2 Workshops on export certification and import verification		Q3 - Q4		• % increase in knowledge of NPPOs on export certification and import verification • # of individuals trained disaggregated by gender and country.	• Pre-and post-workshop surveys • Feedback from the end users (seed exporters and importers)	• Active cooperation by the NPPOs • Application by at least one third party seed health testing laboratory for accreditation
OUTPUT 4: The implementation of ePhyto is further facilitated in the region						
Activities	Y1	Y2	Y3	Indicators	Source of Verification	Assumptions and Risks

4.1. Facilitation of self-Assessment of the current phytosanitary certification process disaggregated by participant country	Q3 - Q4	Q2-Q3		• Status reports by the NPPOs on their current capacity phytosanitary certification process and systems capable of producing electronic phytosanitary certificate • ePhyto/eCert readiness assessment developed • ePhyto/eCert readiness assessments conducted Specific training needs identified	• Results of assessments provided and evaluated by NPPOs	• Active cooperation by the NPPOs • Responses from the NPPOs to be received within the requested timeframe.
4.2 Training on the relevant ISPM 12 (Phytosanitary Certificates) (Workshops online and face to face)	Q2 – on going			• Registration with the IPPC Hub • Training materials developed and/or updated based on assessment results • Regional and national in-person and/or virtual workshops conducted	• ePhyto report from IPPC • Pre-and post-workshop surveys • Feedback from the end users (seed exporters and importers) • Study Case for at least one consignment	• Active cooperation by the NPPOs • Responses from the NPPOs to be received within the requested timeframe.
4.3 Assistance on the "last-mile" implementation of e-phyto for countries that use		Q3 - Q4	Q1 - Q4	• Development of the e -phyto or integration of NSW	• Countries formally notifying IPPC (in	• Active coordination with one member of the IPPC

ASEAN New Single Window (NSW)				connections to the International Plant Protection Convention (IPPC)'s e-phyto hub	case of ePhyto adoption) • Feedback from the end users (seed exporters and importers) • Collaboration with the specific NPPOs that use NSW	ePhyto Steering Group and IPPC
OUTPUT 5: Public-Public and Public-Private Partnership platform strengthened and recognised						
Activities	Y1	Y2	Y3	Indicators	Source of verification	Assumptions and risks
5.1 Public-public and public-private coordination platform strengthened and recognised	Q1 - Q4			• Expansion of APSA phytosanitary consultation or creation of new public-public and public private coordination platform by APAARI in the first year of the project.	• Meeting reports	• The biggest challenge: to build and sustain the trust between the public and private sector. • Dedicated human resource and financial resources as mentioned in the work plan and budget proposed
5.2 PPP joint workshop held in one country			Q4	• Workshop Organized	• Workshop Proceedings	• This event will be carried out with more NPPOs in subsequent years.
5.3 Policy dialogue initiated for developing a 3rd party laboratory accreditation program (as per ISPM 45)		Q4	Q1	• Protocol for the laboratory accreditation based on international standards. • Face-to-face and online meetings	• Site visits of NPPOs to private sector seed health laboratories • Meeting reports	• Risk: countries should agree in principle to accreditation of private sector seed health laboratories like the Philippines.

5.4 Joint workshops between public and private sector conducted on awareness of investments made by private sector in seed health testing to support the implementation of ISPM 45		Q1 - Q4	Q1	• Face-to-face and online workshops between the private and public sector on seed health testing and ISPM 45.	• Pre- and post-workshop surveys and evaluations of trainees' knowledge • Meeting reports • Feedback from the participants including private seed sector	• The capacity of the public sector is to be increased so that the NPPOs are effective approving authority while private sector will be the largest applicants. • Active cooperation by the NPPOs

APPENDIX 2: Work Plan[5] from July 2022 to June 2025

Activity	Responsibility	Year 1				Year 2				Year 3			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
OUTPUT 1 **Specific needs regarding existing infrastructure and capabilities of the NPPOs of the participating countries are identified**													
1.1 Analysis of the Validation Workshop for highlighting the action points (Detailed analysis of the capacity of NPPOs based on the response received on the questionnaires during the PPG)	Project Manager, Project Working group, Subject Matter Expert(s)	X											
1.2 Follow up meeting with the individual NPPOs (Meeting with the individual NPPOs of each country and in country assessment)	Project Manager, Subject Matter Expert(s), NPPOs	X	X										
1.3 Group Meeting involving all NPPOs and other stakeholders for final assessment of gaps	Project Manager, Working Group, NPPOs, Private Sector, FAO and other invited stakeholders and experts		X										

[5] Please shade or otherwise indicate when the activity will take place.

OUTPUT 2: Portal of phytosanitary requirements created in English and reviewed as necessary													
2.1 Existing pest list for seeds reviewed for each participating country. (It involves meeting with the NPPO, obtaining the pest lists and detailed review by a Subject Matter Expert)	Subject Matter Expert, NPPOs, Project Manager		x	x	x	x							
2.2 Phytosanitary requirements reviewed and confirmed with the NPPOs (it will be completed along with the activity 2.1)	Working group and NPPOs		x	x									
2.3 Import and export phytosanitary certification requirements compiled (It involves desk work, final confirmation with the NPPOs)	Working group and NPPOs			x	x								
2.4 Prototype and finally fully functional portal of phytosanitary requirements (Including building the IT platform, data application, entering information, testing and finally going live with the portal)	IT consultant, Project Manager, all stakeholders			x	x	x	x						
OUTPUT 3: NPPO's knowledge built on international standards for Phytosanitary Measures (ISPMs)													
3.1 Capacity building on relevant ISPMs (Workshops online and face to face)	Subject Matter Expert				x	x	x	x x	x	x			
3.2 Workshops on export certification and import verification								x x	x				
Output 4. **ePhyto implemented in one country**													

4.1. Facilitation of self-Assessment of the current phytosanitary certification process disaggregated by participant country		x	x										
4.2 Training on the relevant ISPM 12 (Phytosanitary Certificates) (Workshops online and face to face						x	x	x	x	x	x	x	x
4.3 Assistance on the "last-mile" implementation of ePhyto for countries that use ASEAN New Single Window (NSW)								x	x	x	x	x	x
OUTPUT 5: Public-Public and Public-Private Partnership platform strengthened and recognised													
5.1 Public-public and public-private coordination platform strengthened and recognised		x	x	x	x								
5.2 PPP joint workshop held in one country													x
5.3 Policy dialogue initiated for developing a 3rd party laboratory accreditation program (as per ISPM 45)								x	x				
5.4 Joint workshops between public and private sector conducted on awareness of investments made by private sector in seed health testing to support the implementation of ISPM 45						x	x	x	x	x			

APPENDIX 3: Budget (US$)[6]

The following table presents a budget summary based on the outputs identified in the logical framework and the activities needed to achieve these outputs.

APPENDIX: Budget (USD) for Face to Face	BUDGET FOR WHOLE PROJECT		
	Unitary cost	STDF	In Kind / Other
Output 1: Specific needs regarding existing infrastructure and capabilities of the NPPOs of the participating countries are identified			
Activity 1.1: Analysis of the Validation Workshop for highlighting the action points (Detailed analysis of the capacity of NPPOs based on the response received on the questionnaires during the PPG)			
Staff Time			
Dr Ravi Khetarpal 2 days	$ 600	$ 1,200	
Project manager 5 days	$ 350	$ 1,750	
APSA 30 Days	$ 350		$ 10,500
ISF 15 Days	$ 350		$ 5,250
CLA 15 Days	$ 350		$ 5,250
KM Support 2 Days	$ 200	$ 400	
Subtotal		**$ 3,350**	**$ 21,000.00**
Activity 1.2: Follow up meeting with the individual NPPOs of each country and in country assessment (online meeting)			
Staff Time			
Dr Ravi Khetarpal 7 days	$ 600	$ 4,200	

[6] Use the headings in the budget table above as a basis to prepare a budget table, preferably as an Excel chart.

Project manager 10 days	$	350	$	3,500	
KM Suppot 3 Days	$	200	$	600	
APSA 30 Days	$	350			$ 10,500
ISF 30 Days	$	350			$ 10,500
CLA 30 Days	$	350			$ 10,500
Subtotal			**$**	**8,300**	**$ 31,500.00**
Activity 1.3 Consultation group meeting involving all NPPOs and other stakeholders for final assessment of gaps (First steering committee meeting, Inception and Functional Capacity Workshop in Bangkok)					
Face to face meeting in Bangkok assuming fully vaccinated are allowed quarantine free travel (14+6+5, country & Experts) including one Expert from SAARC /ASEAN					
STAFF Time					
Dr Ravi Khetarpal 3 days	$	600	$	1,800	
Ms. Martina Spisiakova 2 Days	$	350	$	700	
Dr. Norah Omot 4 Days	$	350	$	1,400	
Project Manager 10 Days	$	350	$	3,500	
APSA 30 Days	$	350			$ 10,500
ISF 15 Days	$	350			$ 5,250
CLA 15 Days	$	350			$ 5,250
Staff Travel					
Ms. Martina Spisiakova 1 trip	$	1,500	$	1,500	
Daily Subsistence Allowance (DSA) for Staff (Per diem - hotel and food)					
Ms. Martina Spisiakova 5 Days	$	220	$	1,100	
Terminals & visas, COVID-19 Testing					
Ms. Martina Spisiakova 1 trip	$	100	$	100	

Consultant Travel				
Project Manager - 1 Trip	$	1,000	$	1,000
Daily Subsistence Allowance (DSA) for Consultant (Per diem - hotel and food)				
Project Manager - 4 Days	$	220	$	880
Terminals & visas, COVID-19 Testing				
Project Manager - 1 Trip	$	100	$	100
Air Travel costs	$	700	$	14,000
DSA (Per diem - hotel and food)	$	200	$	12,000
Venue - 2 days	$	50	$	2,500
Dinner - 1 days	$	100	$	2,500
Terminals & visas, RTPCR (COVID-19 Testing)	$	100	$	2,000
In country (Local tran)			$	700
Workshop Supply			$	500
Subtotal			**$**	**46,280**	**$**	**21,000**
Output 1 Subtotal			**$**	**57,930**	**$**	**73,500**
Output 2 Creation of a portal of phytosanitary requirements in English and reviewed as necessary						
Activity 2.1 Review existing regulated pest list for seeds for each participating country				
Staff Time				
Dr Ravi Khetarpal 7 Days	$	600	$	4,200
Project Manager 15 days	$	350	$	5,250
KM Support 4 days	$	200	$	800
Subtotal			**$**	**10,250**	**$**	**-**
Activity 2.2 Review of the phytosanitary requirements and confirmation by NPPOs (it will be completed along with the activity 2.1)				
Dr Ravi Khetarpal 7 Days	$	600	$	4,200

Project Manager 15 days	$ 350	$ 5,250		
APSA 7 Days	$ 350		$ 2,450.00	
ISF 7 Days	$ 350		$ 2,450.00	
CLA 7 Days	$ 350		$ 2,450.00	
Subtotal		**$ 9,450**	**$ 7,350**	
Activity 2.3 Import and export phytosanitary certification requirements compiled				
Dr Ravi Khetarpal 7 Days	$ 600	$ 4,200		
Project Manager 15 days	$ 350	$ 5,250		
APSA 7 Days	$ 350		$ 2,450.00	
ISF 7 Days	$ 350		$ 2,450.00	
CLA 7 Days	$ 350		$ 2,450.00	
Subtotal		**$ 9,450**	**$ 7,350**	
Activity 2.4 Prototype and finally fully functional portal of phytosanitary requirements				
IT consultant – 60 days	$ 150	$ 9,000		
IT Supply	$ 2,000	$ 6,000		
Database Pest list 30 days	$ 150	$ 4,500		
Data entry - 3 Months (APSA Kind Cont)	$ 1,000		**$ 3,000**	
APSA 30 Days	$ 350		**$ 10,500**	
ISF 15 Days	$ 350		**$ 5,250**	
CLA 15 Days	$ 350		**$ 5,250**	
KM Support 10 Days	$ 200	$ 1,400	$ 600	
Subtotal		**$ 20,900**	**$ 24,600**	
Output 2 Subtotal		**$ 50,050**	**$ 39,300**	
Output 3. Building NPPO's knowledge on International Standards for Phytosanitary Measures (ISPMs)				
Activity 3.1Training on the relevant ISPMs such as ISPM 2, 11, 12, 38 and 45. (Workshops online and face to face)				

Participants for face to face Meeting - 2 from the 7 countries and project team= 20 Total (Number of Training 3)(14+16 country & Experts)			
Staff Time			
Dr Ravi Khetarpal 5 days	$ 600	$ 3,000	
Project Manager 15 days	$ 350	$ 5,250	
Ms. Martina Spisiakova 5 Days	$ 350	$ 1,750	
Dr. Norah Omot 7 Days	$ 350	$ 2,450	
KM Support 6 Days	$ 200	$ 600	$ 600
Data entry - 3 month (APSA Kind Cont)	$ 1,000		$ 3,000
APSA 30 Days	$ 350		$ 10,500
ISF 30 Days	$ 350		$ 5,250
CLA 30 Days	$ 350		$ 5,250
Staff Travel			
Dr Ravi Khetarpal 2 Trips	$ 700	$ 1,400	
Project Support Staff/Assist. 1 Trips	$ 700	$ 700	
Daily Subsistence Allowance (DSA) for Staff (Per diem - hotel and food)			
Dr Ravi Khetarpal 8 Days	$ 220	$ 1,760	
Project Support Staff/Assist. 4 Days	$ 220	$ 880	
Terminals & visas, COVID-19 Testing			
Dr Ravi Khetarpal 2 Trips	$ 100	$ 200	
Project Support Staff/Assist. 1 trip	$ 100	$ 100	
Consultant Travel			
Project Manager - 2 Trips	$ 1,000	$ 2,000	
Daily Subsistence Allowance (DSA) for Consultant (Per diem - hotel and food)			
Project Manager - 8 Days	$ 220	$ 1,760	

Terminals & visas, COVID-19 Testing			
Project Manager - 2 Trip	$ 100	$ 200	
Participants Travel & Meeting Cost			
Air Travel costs	$ 700	$ 42,000	
DSA (Per diem - hotel and food)	$ 200	$ 36,000	
Venue - 2 days	$ 50	$ 9,000	
Dinner - 1 days	$ 100	$ 9,000	
Terminals & visas, RTPCR (COVID-19 Testing)	$ 100	$ 6,000	
Workshop Supply		$ 1,500	
In country (Local tran)		$ 3,000	
Supply (In Kind by APAARI)			$ 3,000.00
Consultant/ Trainer Cost			
Trainer cost for ISPM (45 Days)	$ 350	$ 15,750	
Consultant PRA (15 Days)	$ 600	$ 9,000	
Consultant/Trainer Travel			
ISPM Trainer - 4 Trips	$ 1,000	$ 4,000	
Daily Subsistence Allowance (DSA) for Consultant (Per diem - hotel and food)			
ISPM Trainer - 16 Days	$ 220	$ 3,520	
Terminals & visas, COVID-19 Testing			
ISPM Trainer - 4 Trip	$ 100	$ 400	
Consultant PRA Travel			
Consultant PRA - 2 Trips	$ 1,000	$ 2,000	
Daily Subsistence Allowance (DSA) for Consultant (Per diem - hotel and food)			
Consultant PRA - 8 Days	$ 220	$ 1,760	
Terminals & visas, COVID-19 Testing			
Consultant PRA - 2 Trip	$ 100	$ 200	

Subtotal		**$ 165,180**	**$ 27,600**
Activity 3.2 Workshops on export certification and import verification (In Kind From CLA)			
20 Participants+ In country 25			
Venue - 2 Days	$ 50		$ 4,500
Dinner - 1 days	$ 100		$ 4,500
Air travel costs	$ 700		$ 14,000
DSA (Per diem - hotel and food)	$ 200		$ 12,000
In country (Local tran)			$ 1,250
Workshop Supply			$ 500
Terminals & visas, RTPCR (COVID-19 Testing)	$ 100		$ 2,000
Consultant Travel			
Project Manager - 1 Trip	$ 1,000	$ 1,000	
Daily Subsistence Allowance (DSA) for Consultant (Per diem - hotel and food)			
Project Manager - 4 Days	$ 220	$ 880	
Terminals & visas, COVID-19 Testing			
Project Manager - 1 Trip	$ 100	$ 100	
Subtotal		**$ 1,980**	**$ 38,750**
Subtotal			
Output 3 Subtotal		**$ 167,160**	**$ 66,350**
Output 4 The implementation of ePhyto is further facilitated in the region			
Output 4			
Activity 4.1 Facilitation of self-assessment of the current phytosanitary certification process disaggregated by participant country - 2 from each country * 7 countries =14+11 in country & Experts =25; including one Expert from SAARC /ASEAN			
Staff Time			

Dr Ravi Khetarpal 3 days	$	600	$	1,800		
Project Manager 5 Day	$	350	$	1,750		
Dr. Norah Omot 5 Days	$	350	$	1,750		
Ms. Martina Spisiakova 5 Days	$	350	$	1,750		
KM Support 5 Days	$	200	$	600	$	400
Venue - 2 Days	$	50	$	2,500		
Dinner - 1 days	$	100	$	2,500		
Air travel costs	$	700	$	14,000		
DSA (Per diem - hotel and food)	$	220	$	13,200		
In country (Travel for local participants)			$	550		
Terminals & visas, RTPCR (COVID-19 Testing)	$	100	$	2,000		
Workshop Supply			$	1,000		
Consultant Travel						
Project Manager - 1 Trip	$	1,000	$	1,000		
Daily Subsistence Allowance (DSA) for Consultant (Per diem - hotel and food)						
Project Manager - 4 Days	$	220	$	880		
Terminals & visas, COVID-19 Testing						
Project Manager - 1 Trip	$	100	$	100		
Subtotal			**$**	**45,380**	**$**	**400**
Activity 4.2 Training on the relevant ISPM 12 (ePhyto) through online or face to face workshops including one Expert from SAARC /ASEAN						
ISF 5 Days	$	350			$	1,750
Project manager	$	350			$	1,750
KM Support 5 Days	$	200			$	400
Subtotal			**$**	**-**	**$**	**4,300**
Activity 4.2 Assistance on the "last-mile" implementation of ePhyto for countries that use ASEAN New Single Window (NSW)						

ISF 5 Days	$	350			$	1,750
Project manager	$	350			$	1,750
KM Support 5 Days	$	200			$	400
Subtotal			**$**	**-**	**$**	**3,900**
Subtotal			**$**	**45,380**	**$**	**8,600**
Output 4 Subtotal			**$**	**45,380**	**$**	**8,600**
Output 5 Public-Public and Public-Private Partnership platform strengthened and recognized						
Activity 5.1 Public-public and public-private coordination platform strengthened and recognized & Workshop, including one Expert from SAARC /ASEAN						
Staff Time						
Dr Ravi Khetarpal 5 days	$	600	$	3,000		
Project Manager 5 Day	$	350	$	1,750		
Ms. Martina Spisiakova 5 Days	$	350	$	1,750		
Dr. Norah Omot 4 Days	$	350	$	1,400		
KM Support 5 Days	$	200	$	600	$	400
Venue - 2 Days	$	50	$	1,250		
Dinner - 1 days	$	100	$	2,500		
Air travel costs	$	700	$	14,000		
DSA (Per diem - hotel and food)	$	220	$	13,200		
In country (Travel for local participants)	$	50	$	250		
Terminals & visas, RTPCR (COVID-19 Testing)	$	100	$	2,000		
Local Transportation (In Kind from APAARI)					$	500.00
Workshop Supply			$	1,000		
Consultant Travel						
Project Manager - 1 Trip	$	1,000	$	1,000		
Daily Subsistence Allowance (DSA) for Consultant (Per diem - hotel and food)						
Project Manager - 4 Days	$	220	$	880		

Terminals & visas, COVID-19 Testing			
Project Manager - 1 Trip	$ 100	$ 100	
Subtotal		**$ 44,680**	**$ 900**
Activity 5.2 Joint workshops conducted on awareness of investments made by private sector in seed health testing			
Specific in country workshop one with each partner country (Total 7 workshop) (3 Expert from project team) 12 country participants= Total15			
Staff Time			
Dr Ravi Khetarpal 3 days	$ 600	$ 1,800	
Project Manager 30 Day	$ 350	$ 10,500	
Ms. Martina Spisiakova 10 Days	$ 350	$ 3,500	
Dr. Norah Omot 3 Days	$ 350	$ 1,050	
KM Support 7 Days	$ 200	$ 1,000	$ 400
Staff Travel			
Dr Ravi Khetarpal 1 Trips	$ 700	$ 700	
Daily Subsistence Allowance (DSA) for Staff (Per diem - hotel and food)			
Dr Ravi Khetarpal 4 Days	$ 220	$ 880	
Terminals & visas, COVID-19 Testing			
Dr Ravi Khetarpal 1 Trips	$ 100	$ 100	
Air Travel costs	$ 700	$ 34,300	
DSA (Per diem - hotel and food)	$ 220	$ 10,780	
Venue - 1 days	$ 50	$ 5,250	
Terminals & visas, RTPCR (COVID-19 Testing)	$ 100	$ 4,900	
In country (Travel for local participants)	$ 50	$ 600	
Workshop Supply		$ 7,000	
Consultant Travel			
Project Manager - 7 Trips	$ 1,000	$ 7,000	

Daily Subsistence Allowance (DSA) for Consultant (Per diem - hotel and food)			
Project Manager - 28 Days	$ 220	$ 6,160	
Terminals & visas, COVID-19 Testing			
Project Manager - 7 Trip	$ 100	$ 700	
Subtotal		**$ 96,220**	**$ 400**
Output No 5.3. Policy dialogue initiated for developing a 3rd party laboratory accreditation program (as per ISPM 45 in Bangkok - 25 Participants+ incountry 20			
Staff Time			
Dr Ravi Khetarpal 5 days	$ 600	$ 3,000	
Project Manager 15 Days	$ 350	$ 5,250	
Ms. Martina Spisiakova 3 Days	$ 350	$ 1,050	
Dr. Norah Omot 2 Days	$ 350	$ 700	
KM Support 5 Days	$ 200	$ 600	$ 400
Venue - 2 Days	$ 50	$ 2,500	
Dinner - 1 days	$ 100	$ 2,500	
Air travel costs	$ 700	$ 14,000	
DSA (Per diem - hotel and food)	$ 220	$ 13,200	
In country (Travel for local participants)		$ 700	
Terminals & visas, RTPCR (COVID-19 Testing)	$ 100	$ 2,000	
Local Transportation (In Kind from APAARI)			$ 500.00
Workshop Supply		$ 1,000	
Trainer Cost			
Consultant Travel			
Project Manager - 1 Trip	$ 1,000	$ 1,000	
Daily Subsistence Allowance (DSA) for Consultant (Per diem - hotel and food)			
Project Manager - 4 Days	$ 220	$ 880	

Terminals & visas, COVID-19 Testing				
Project Manager - 1 Trip	$	100	$ 100	
Sub Total			**$ 48,480**	**$ 900**
Output 5 Subtotal			**$ 189,380**	**$ 2,200**
Steering Committee meeting 3 (1/ year) Number of participants 12				
Venue - 2 Days	$	50	$ 1,800	
Dinner - 1 days	$	100	$ 3,600	
Air travel costs	$	1,000	$ 36,000	
DSA (Per diem - hotel and food)	$	220	$ 47,520	
Terminals & visas, vaccinations	$	100	$ 3,600	
Subtotal of SC Meeting			**$ 92,520**	
End of Workshop				
Finalization and dissemination planning workshop - 2 participants country * 7 Countries (14+6+ 5 Partner =25) includeding one Expert from SAARC /ASEAN				
Air Travel costs	$	700	$ 14,000	
DSA (Per diem - hotel and food)	$	220	$ 13,200	
Dinner- 1 Nights	$	100	$ 2,500	
Venue - 2 days	$	50	$ 2,500	
Terminals & visas, RTPCR (COVID-19 Testing)	$	100	$ 2,000	
In country (Local tran)			$ 700	
Workshop Supply			$ 1,000	
Subtotal of Finalization workshop			**$ 35,900**	

Sub total of all out put			**$**	**638,320**	**$**	**189,950**
PROJECT MANAGEMENT						
A) STAFF						
Dr Ravi Khetarpal 20 days	$	600	$	6,000	$	6,000
Project Manager 100 Days	$	350	$	24,500	$	10,500
KM Support 40 Days	$	200	$	6,000	$	2,000
Project Support Staff/Assist. Cost (36 Months)	$	1,150	$	41,400		
Dr. Norah Omot 5 Days	$	350	$	1,750		
APSA 15 Days	$	350			$	5,250
ISF 15 Days	$	350			$	5,250
CLA 15 Days	$	350			$	5,250
B) TRAVEL						
Project Manager - 1 Trips	$	1,000	$	1,000		
Project Support Staff/Assist. 1 Trips	$	700	$	700		
Daily Subsistence Allowance (DSA) for Staff (Per diem - hotel and food)						
Project Manager - 4 Days	$	220	$	880		
Project Support Staff/Assist. 4 Days	$	220	$	880		
Terminals & visas, COVID-19 Testing						
Project Manager - 1 Trip	$	100	$	100		
Project Support Staff/Assist. 1 trip	$	100	$	100		
Operation Cost						
Office Supply			$	9,000		
Communication/ Telephone/Internet /Misc			$	6,000		
Subtotal			**$**	**98,310**	**$**	**34,250**

COMMUNICATIONS & OTHERS			
Publications-printing, video, communications		$ 20,000	
End of Project Independent Assessment (Time and travel)		$ 15,000	
Contingency funds (5%)		$ 38,582	
Project Total		**$ 810,212**	**$ 224,200**
APAARI Overhead @10% APAARI overhead 2% in-kind contribution		**$ 89,123**	**$ 8,102**
Total STDF Request		**$ 899,335**	
Partner Matching Contributions			**$ 232,302**
Grand		**$ 1,131,637**	

APPENDIX 4 – Letters of Support

The letters of support received for the project from following NPPOs, Technical Associated Implementing Partners including New and the technical supporting partners various organizations, including New Zealand and Australia.

NPPOs

- Bangladesh – Department of Agricultural Extension, Ministry of Agriculture
- Laos PDR – Department of Agriculture, Ministry of Agriculture and Forestry
- Nepal – Plant Quarantine and Pesticide Management Center, Ministry of Agriculture and Livestock Development
- Philippines – Bureau of Plant Industry, Ministry of Agriculture
- Thailand – Science Research and Development Division Department of Agriculture, Ministry of Agriculture
- Vietnam – Ministry of Agriculture and Rural Development
- Cambodia - General Directorate of Agriculture, Ministry of Agriculture, Forestry and Fisheries

Technical Associated Partners

- Asia Pacific Seed Alliance Ltd- Bangkok, Thailand
- Crop Life Asia – Singapore
- International Seed Federation- Geneva, Switzerland
- American Seed Trade Association- USA

Supported by

- New Zealand – Ministry of Primary Industries
- Australia – Department of Agriculture, Water and Environment, Australian Government