IPPC ePhyto Strategic Implementation Plan

2019 - 2023

Introduction

1. The Commission on Phytosanitary Measures (CPM) has developed and implemented a technology solution to advance the global use of electronic phytosanitary certificates (ePhytos) in international trade. The Solution consists of three technology components:
2. A hub to facilitate the exchange of electronic certificates between participating countries and
3. A web-based Generic ePhyto National System (GeNS) to allow countries to participate without having the necessary infrastructure to create, send and receive electronic certificates.
4. Harmonized message format and contents (i.e. message schema, accompanying codes, lists and terms to be used in the schema)
5. The ongoing operation of the Solution is the responsibility of IPPC Secretariat. The Secretariat which is housed within the Agriculture Division of the Food and Agriculture Organization (FAO) of the United Nations is not resourced to support the operation of the Solution. As countries continue to adopt ePhytos as the basis of their trade, the Solution must operate in a stable and sustainable manner. This strategic implementation plan 2019-2023 (SIP) has been developed to transition from a project with defined funding to a program administered by the IPPC Secretariat. The SIP lays out the strategic objectives and outcomes expected in keeping with the IPPC Strategic Framework 2020 – 2030.

## Strategic Objectives

1. The IPPC Strategic Framework 2020 – 2030 includes as one of its key components for its Development Agenda “the implementation of a global system for production and exchange of electronic certification information”. It specifies 5 key activities to be carried out:
* Successful establishment of the IPPC ePhyto hub as the international system for exchange of electronic phytosanitary certificate information
* Successful establishment of the IPPC ePhyto Generic ePhyto National System for production, sending and receiving of electronic phytosanitary certificate information
* The successful implementation of both the ePhyto hub and the Generic National System, where needed, in all member countries.
* Investigation of associating other databases (such as regulatory import requirements) into the ePhyto hub.
* Establishment of pilot projects for new or improved electronic systems. Uninterrupted operation of the hub and GeNS
1. The ePhyto Solution project has completed the development of technology systems for use by contracting parties. The SIP implements the activities outlined in the IPPC Strategic Framework 2020 – 2030 with an initial focus on implementation of the systems by countries, securing uninterrupted service and establishing effective governance and financial management structures for its long term operation.
2. To achieve the activities outlined in the IPPC Strategic Framework 2020 – 2030, this plan proposes the following medium term agenda for the five year period from 2019 to 2023:
3. Stable operation of the hub and GeNS to permit implementation by contracting parties;
4. Sustainable financial operation based upon a compelling and coherent donor strategy;
5. Monitoring and reporting on the performance of the solution;
6. Fully-funded capacity development strategy separate and distinct from a sustained ePhyto operational fund;
7. Monitoring and reporting on financial management;
8. Communications and advocacy framework;
9. Cost-benefit analysis;
10. Long term cost recovery plan to maintain ongoing operation including change management, and;
11. Cooperation with international and regional partners to advance interoperability and cost reduction
12. The core elements of this agenda are governance, operations, finance, country implementation, communication and international cooperation. The key results expected by 2023 and annual key milestones are outlined in Annex 1.
13. The IPPC Secretariat as part of the ePhyto Solution project commissioned Trade Development and Facilitation (TDAF) Consulting to evaluate potential options for a business model for the operation of the ePhyto Solution. In June 2018, TDAF presented a report to the Secretariat. The report was fully considered by the IPPC Secretariat and the IPPC ePhyto Steering Group and has been included in the development of the SIP. Where appropriate, the references to the specific recommendations have been added to the text.

## Governance

1. The IPPC Strategic Framework 2020 – 2030 proposes that the “*operation of an export system capable of providing official assurances through phytosanitary certification*” falls within the core activities of implementation and capacity development (ICD). However, the ICD unit of the IPPC Secretariat is not resourced to oversee the operation of the ePhyto Solution and as an alternative establishing an independent trade facilitation unit within the Secretariat should be considered. Such a unit could address issues on eCommerce, sea containers, and others relevant to the implementation of the Trade Facilitation Agreement in the context of trade in plants and plant products. Countries have provided donor support to fund the staff associated with the project and this will need to continue until ongoing funding arrangements are in place.
2. Operation of the technology will be provided by the United Nations International Computing Centre (UNICC) under service delivery agreements (SDAs) with the IPPC (FAO). The SDAs provide for the operation of the systems and a technical help desk to address technology issues. This will ensure that, as a minimum, continuous operation of the Solution is assured.
3. Other administrative services related to operation of the Solution would be provided by the IPPC Secretariat[[1]](#footnote-1). A small 1 or 2 person team would be responsible for carrying out the following activities:
* business help desk support to national plant protection organizations,
* supervision, evaluation, and administration of agreements with UNICC to deliver systems operation;
* engagement with donors;
* financial accountability to donors;
* reporting to CPM;
* monitoring of advances in electronic certification; engagement and collaboration on interoperability of systems including industry advances
1. The delivery of services by the IPPC Secretariat should be fully evaluated well in advance of the completion of the SIP to determine if the staffing is required, adequate or whether some services may be better managed outside of the Secretariat or by other organizations[[2]](#footnote-2).

Key results:

1. CPM approval of the IPPC ePhyto Strategic Framework 2019-2023 in 2019;
2. An independent IPPC ePhyto unit established within the IPPC Secretariat Trade Facilitation Unit in 2019;
3. Confirmation of the staffing requirements for the IPPC ePhyto unit presented to CPM by 2021;
4. Reports presented to CPM annually on the performance of the system, the operation of the ePhyto unit and recommendations to advance interoperability of ePhyto with other international electronic certificate initiatives or industry systems

## Operation

1. Service Delivery Arrangements (SDAs) with UNICC to provide the operating technology have been established and remain in effect until terminated by either party. These should be reviewed by IPPC/FAO and UNICC on a routine basis (a minimum of every 24 months) to ensure that the technology remains responsive to the users and where appropriate incorporates technology advances. A detailed process of change management should be established by early 2019. The processes should be sensitive to the differences in countries abilities to adopt changes. Any changes in the services should be reflected through the establishment of business change requests, which should be clearly communicated to users through established and maintained channels, well in advance of enacting changes. Operational changes should be communicated as part of annual reporting described in the section on governance. User surveys or the establishment of user groups to provide feedback on operation should be established to facilitate environmental scanning and continuous improvement.
2. The adoption of ePhytos by countries is expected to steadily increase as access electronic exchange technology is simplified and improved. Benefits to both traders and governments in increased efficiencies and effectiveness should result in steady adoption of electronic certificates. To encourage steady adoption of the Solution, a program of advocacy should also be established based on a thorough analysis and reporting on the impacts to trade (see cost-benefit analysis described in finance below). The IPPC Secretariat must also anticipate higher than expected demand for use of both the GeNS and hub and must ensure that SDAs can accommodate service expectations. A preliminary study of impacts to trade is being conducted by the ePhyto Industry Advisory Group (IAG) working with the NPPOs who have adopted the hub. The study design and results of this effort should be reviewed and expanded to include a specific monitoring of the full impacts implementation to governments and traders.

Key results:

1. Service delivery agreements with UNICC reviewed and adjusted as required at least every two years
2. Steady increase in the adoption of the hub and GeNS with at least 30 countries using the hub and 30 countries using the GeNS by 2023.
3. Contingency arrangements in place to cope with greater than anticipated demand by 2020
4. NPPOs and traders of plants and plant products report improved efficiencies in trade moving between countries exchanging electronic certificates by 2023

## Finance

1. The operation of the hub and GeNS is anticipated to cost approximately U.S. $706,000 annually[[3]](#footnote-3) as described below:

|  |  |
| --- | --- |
| *Service* | *Cost (U.S. $)* |
| Hub operating costs (UNICC) | 165,000 |
| GeNS operating costs (UNICC) | 246,000 |
| IPPC ePhyto unit (estimated) | 295,000 |
| Total operating costs | 706,000 |

1. The operating costs do not include any specific operational enhancements to the technology. Therefore additional costs could be incurred to improve the operation of the hub and/or GeNS, although some potential costs are included within the existing SDAs. A more detailed analysis of the operating costs will be completed early in the operation of the plan including a consideration of the IPPC Secretariat costs[[4]](#footnote-4).
2. Following consideration of a number of models proposed by TDAF, a donor funding model was considered the most feasible and should be established to fund the operation of the system in the short term (2019-2023) until a full cost-recovery model, based on a thorough cost-benefit analysis, can be completed[[5]](#footnote-5). Additional funding strategies should be further examined during the first three years of this strategy so that a long term operating model that may include a spectrum of cost recovery options[[6]](#footnote-6) can be implemented prior to 2023.
3. The estimates for operating the Solution presented above do not account for additional overhead costs to the IPPC Secretariat in maintaining the various standards and technical information associated with the systems. For example, the messaging structure may continue to require support from member countries to maintain or improve the standard or to keep it compliant with adjustments arising from interoperability. Additionally, technical documents regarding operating the systems may continue to require improvements. The costs of holding meetings; support to developing countries to attend meetings; and other activities may add to the overall costs of operating the Solution. These activities are considered to be within the context of the normal operating activities of the Secretariat’s standard setting and implementation work, but these ongoing costs should be identified.
4. The IPPC Secretariat will commission a thorough cost-benefit analysis to clearly identify economic improvements in government and industry operations as well as improvements to national and international biosecurity. The analysis will provide support to the development of a donor funding strategy.
5. A donor funding strategy should be established by the end of 2019 and clearly outline the objectives of the strategy, the processes to be undertaken for cultivating and retaining donors, and an agreed upon monitoring and reporting framework for the funds. It will need to ensure that service levels are not reduced as a result of insufficient funding. Donor funding must be sufficient and ongoing
6. Donor funding contributed to the operation of the Solution should be protected from use in other IPPC Secretariat activities. To ensure transparency and to maintain the confidence of donors, a multi-donor trust fund specific to the funds for ePhyto will be established early in the implementation strategy. Reporting on the use of funds will be a key element of governance reporting and based on agreed expenditure plans[[7]](#footnote-7).

Key results:

1. Donor strategy drafted, adopted by CPM-15 and implemented
2. Minimum of 7 years funding at $1,000,000 per annum obtained to operate hub and GeNS
3. Separate and distinct financial mechanisms for ePhyto operations and ePhyto capacity development established, funded and being executed by 2019
4. Cost-benefit analysis of ePhyto implementation presented to CPM-15
5. Long term funding strategy defined, approved by CPM and implemented by July 2023

## Country implementation

1. The project makes the GeNS available to countries without national systems capable of producing, sending and receiving ePhytos. The support required by countries to implement the Solution varies by country; with many able to implement the GeNS operation without any retooling of phytosanitary certificate business processes by either the NPPO or the trader. The Solution project has produced guidance for implementing the hub and GeNS and some guidance on business process analysis. These guides should continue to be reviewed by countries implementing the system and updated, as necessary, to ensure they remain effective.
2. The IPPC Secretariat core program will provide the tools that describe how to use the technology and some guidance on undertaking business process self-assessments. It does not extend to support country capacity development. The Secretariat is developing a partnership with the World Bank in its efforts to implement the World Trade Organization’s Trade Facilitation Agreement (TFA) to assist the countries that have indicated that they do not have the capacity to implement the Solution without help. Under the proposed agreement, the World Bank would secure donor funding to improve the capacities of countries to implement ePhyto within an overall implementation of trade facilitation and border management improvement.  The World Bank, with the support of the IPPC Secretariat, would provide direct guidance to countries in implementing the Solution within a comprehensive approach to implementing the WTO Trade Facilitation Agreement (TFA). The IPPC Secretariat will continue to work with the World Bank in developing tools that could be used by countries to implement the solution independently or with the assistance of countries or regions with experience in implementation[[8]](#footnote-8).
3. Regional plant protection organizations (RPPOs) and NPPOs with sufficient resources and understanding of the technology and the business processes should support implementation where possible. To ensure consistency and universally availability, the development of guidance material that could be used by RPPOs and countries to assist other countries in implementing ePhyto should be coordinated by the Secretariat. These would be an expansion of the existing tools developed under the project and could be a key component of the RPPO annual work plan.
4. The IPPC Secretariat will seek additional donor funding from industry and NPPOs to support the development of these additional tools and to deliver awareness and training through biennial workshops or global symposiums on ePhyto[[9]](#footnote-9). The Secretariat also coordinate with other international organizations to include awareness-raising for ePhyto at meetings hosted by other organizations (e.g. regional trade facilitation workshops, customs meetings, etc.) as a basis for leveraging additional investment.

Key results:

1. Tools for implementation and use of hub and GeNS and business process guide validated by countries using the system and made available to all contracting parties by end of 2019
2. Agreement to support capacity development for national implementation of ePhyto between IPPC Secretariat and World Bank established in 2019
3. At least 2-3 countries per year supported in implementing ePhyto.
4. Periodic training and awareness workshops on ePhyto

Communication and International Cooperation

1. Funding to support Solution operations is contingent on a number of factors including national and international effectiveness, overall use and user satisfaction. A program to encourage adoption and use supports funding and creates advantages through economies of scale.
2. An documented program of communication and advocacy to sell the benefits of the Solution is a key component of work of the IPPC Secretariat8 and will align with the overall [IPPC Communication Strategy](https://www.ippc.int/static/media/uploads/ippc_communicationsstrategy_cpm8_2013.pdf). ePhyto is a central component of the overall operations of the IPPC Secretariat. The tools used should include those described within the [IPPC Communication Strategy](https://www.ippc.int/static/media/uploads/ippc_communicationsstrategy_cpm8_2013.pdf), but in particular should include workshops and communications materials that assist countries in adopting ePhyto. The communications and advocacy program will require sufficient funding to achieve the proposed milestones[[10]](#footnote-10).
3. International cooperation should focus on integration and harmonization between ePhytos and other electronic certificate initiatives and activities, as well as ensuring its compatibility with global implementation of single window functions. Other regulatory bodies including CODEX and the International Organization for Animal Health (OIE) are embarking on expanding existing guidance for electronic certificates. Collaboration on harmonization would assist countries in developing systems capable of handling various health certificates and thus simplifying border activities. Harmonization would also assist in facilitating safe trade and improving biosecurity. The IPPC Secretariat will work with other international organizations to explore the exchange of other electronic certificates through the hub with benefits to IPPC CPs from simplifying the process of exchange for countries, reducing operating costs through economies of scale and increasing the viability of the hub service.
4. As countries implement single windows and adopt paperless trading mechanisms, the alignment of the data of ePhytos with the appropriate elements of the World Customs Organization data model should be determined. The Secretariat should proactively work with international organizations and with its contracting parties to undertake an analysis of alignment to allow countries to make informed decisions on how ePhyto can be used within single windows and Customs systems.

Key results:

1. Communication and advocacy program developed, adopted by CPM-15, funded and implemented.
2. Advisory group on harmonization of electronic documents established by 2020
3. Explore and test the operation of other electronic certificates through the hub by 2021
4. Evaluation of the alignment of ePhyto to the Customs Data Model completed by 2020.

# Annex 1 – Key milestones

| Agenda items | **2019** | **2020** | **2021** | **2022** | **2023** |
| --- | --- | --- | --- | --- | --- |
| **Governance**1. Stable operation of the hub and GeNS to allow implementation by contracting parties;
2. Monitoring and reporting on the performance of the solution;
3. Monitoring and reporting on financial management
 | * CPM endorsement of strategic plan,
* Establishment and implementation of strategic plan
* IPPC operations unit established
* Conduct review of UNICC-IPPC contract
 | * Annual program report (including financial and operational assessment) presented to CPM
 | * Annual program report (including financial and operational assessment) presented to CPM
* Contract with UNICC reviewed, updated and reconfirmed
* Independent assessment of IPPC ePhyto Operations Units delivery of required services completed and presented to CPM
 | * Annual program report (including financial and operational assessment) presented to CPM
* Mid-term evaluation of strategic plan
 | * Annual program report (including financial and operational assessment) presented to CPM
* Contract with UNICC reviewed, updated and reconfirmed
 |
| **Operations**1. Stable operation of the hub and GeNS to permit implementation by contracting parties;
2. Cost-benefit analysis
 | * Hub & GeNS fully operational
* Business support help desk defined
* 10 countries in total connected to hub using national systems
 | * Systems operation and technical assessment completed
* Contingency plan to deal with higher than anticipated uptake implemented
* Business support help desk established
* 15 countries in total connected to hub using national systems
* Continued work on harmonization of data within the ePhyto (codes, etc.)
 | * 20 countries in total connected to hub using national systems
 | * 25 countries in total connected to hub using national systems
 | * Systems operation and technical assessment completed
* 30 countries in total connected to hub using national systems
* Detailed satisfaction surveys completed
 |
| **Finances**1. Sustainable financial operation based upon a coherent donor strategy
2. Monitoring and reporting on financial management
3. Cost-benefit analysis
4. Long term cost recovery plan to maintain ongoing operation
 | * Detailed report of costing of operational components (Hub, GeNS, enhancements, administration, advocacy) provided to CPM Bureau
* Separate and distinct accounting systems for 1) Operation of the Solution and 2) capacity development established
* Donor funding strategy for operation and administration of Hub and GeNS approved by CPM
* Cost-benefits analysis initiated
* At least 5 donor countries supporting operations
* Cost/benefit analysis of the government and industry processes completed
 | * At least 5 donor countries supporting operations
* Analysis of potential options for long term funding based upon existing modelling work.
 | * At least 5 donor countries supporting operations
* Options for long-term (beyond 2023) funding and fund management presented to CPM-16
 | * Long term funding model and fund management defined
 | * Long term funding model and fund management presented to CPM and implemented
 |
| **Country Implementation**1. Stable operation of the hub and GeNS to permit implementation by contracting parties
2. Fully-funded capacity development strategy
 | * Establish and implement capacity development and country implementation strategy
* Capacity development strategy established in partnership with World Bank
* Training tools for advocacy and implementation (e.g. self-assessment modules, etc.) established
 | * At least 10 countries using the GeNS
* At least 5 donors support capacity development either through the IPPC or World Bank
* Uptake/effectiveness of training tools evaluated and reported to CPM
* International symposium on ePhyto completed
 | * At least 20 countries using the GeNS
* At least 10 donors to support capacity development either through the IPPC or World Bank
 | * At least 10 donors to support capacity development either through the IPPC or World Bank
* Needs assessment for further global seminars or workshops conducted and reported to CPM
 | * At least 30 countries using the GeNS
* At least 10 donors to support capacity development either through the IPPC or World Bank
 |
| **Communication and international cooperation**1. Communications and advocacy framework
2. Cooperation with international and regional partners to advance inoperability and cost reduction
 | * RPPOs to provide country level training support
* Advocacy and communication plan endorsed by CPM
* Cooperative agreement between World Bank and IPPC to support country implementation of GeNS established
 | * Advisory group on interoperability and integration between ePhyto and other e-certificate initiatives established
* Alignment of WCO Customs data model to ePhyto
* Develop strategy for interoperability with National Single Windows, Customs data model and other electronic certificate information exchange
* Assessment of data harmonization between single windows and ePhyto completed and reported to ePhyto Steering Group
* 4th IPPC Global ePhyto Symposium
 | * OIE and/or Codex trials of certificates through the hub completed
 |  |  |

1. TDAF Consulting recommendation 7: The IPPC Secretariat should continue to provide the ePhyto Solution Management and Administration function, as the ePhyto Solution will be core to the overall delivery of IPPC Phytosanitary Certificate support services. [↑](#footnote-ref-1)
2. TDAF Consulting recommendation 6: Consideration should be given regarding the operation and provision of the Business Support Desk, including exploring possibilities for support from Regional Plant Protection Organizations (RPPOs), leading NPPOs and Industry. TDAF Consulting recommendation 10: The adequacy of the proposed IPPC Secretariat support resources for the ePhyto Solution should be reviewed in relation to the actual tasks to be undertaken. [↑](#footnote-ref-2)
3. Based upon estimates developed by Trade Development and Facilitation Consulting, 2018 [↑](#footnote-ref-3)
4. TDAF Consulting recommendation 1: Additional research should be undertaken by the IPPC regarding potential direct and indirect benefits of the IPPC ePhyto Solution, including time and cost savings and economic efficiencies. Capacity building requirements should also be more fully elaborated through the Pilot [↑](#footnote-ref-4)
5. TDAF Consulting recommendation 20: A Multi Donor Trust Fund (MDTF) should be established as the preferred initial funding mechanism for the ePhyto Solution, covering an initial 5 years and extendable for additional years. An MDTF project document should be prepared by the IPPC Secretariat for this purpose [↑](#footnote-ref-5)
6. TDAF Consulting recommendation 23: The IPPC should use the 5 year MDTF period to review alternative funding options, such as funding by FAO, a Participant Based Funding model or a combined approach. This review should start immediately after the launch of the MDTF, with a preliminary report prepared by end of Year 1 and a final recommendation by the end of Year 2. Mechanisms for the new agreed model should be fully in place before the end of Year 3. [↑](#footnote-ref-6)
7. TDAF Consulting recommendation 22: Clearly delineated budget lines, with full accountability and auditing, should be established within the MDTF for each key area, including Administration, Additional Development and Support, and Capacity Building [↑](#footnote-ref-7)
8. TDAF Consulting recommendation 13: The IPPC Secretariat should develop training webinars and on-line videos describing the ePhyto Solution. [↑](#footnote-ref-8)
9. TDAF Consulting recommendation 14: The IPPC Secretariat should continue the ePhyto Symposium series and organize a global ePhyto seminar or workshop, at least one every 2 years, to provide training and opportunities for exchange of experiences. [↑](#footnote-ref-9)
10. TDAF Consulting recommendation 8: Programme evaluation and promotion should be included as core elements of the ePhyto Solution programme budget, within the Management and Administration framework [↑](#footnote-ref-10)