



REPORT OF THE MEETING OF THE EPHYTO STEERING GROUP AND PROJECT TECHNICAL COMMITTEE LA PLATA, ARGENTINA 3-7 OCTOBER 2016

Participants

Nico Horn, Chair (of the meeting) (the Netherlands, Europe)
Peter Neimanis, Chair (Australia, Pacific)
Christian Dellis, U.S (North America)
Walter Alessandrini, Argentina (South America)
Maoyu, Chen, China (Asia)
Josiah Sayanda, Kenya (Africa)
Venkatram Venkateswaran, United Nations International Computing Centre (UNICC)
Shashank Rai, UNICC
Shane Sela, International Plant Protection Convention (IPPC) Secretariat

Welcome and opening of the meeting

The IPPC Secretariat opened the meeting by thanking the host, Mr. Alessandrini and his organization SENASA for providing the venue. The Secretariat thanked members for their participation. Mr. Alessandrini and the Chair, Mr. Nico Horn welcomed the members of the ePhyto Steering Group (ESG) and Project Technical Committee (PTC).

Review and adoption of agenda

The members reviewed and adopted the agenda. However, they noted that the Terms of Reference for the ePhyto Steering Group had expired and proposed that it should be reviewed and the draft presented to the Commission on Phytosanitary Measures (CPM) Bureau for approval as an additional agenda item. CPM 8 had established the ESG under the oversight of the Bureau.

Review of the Terms of Reference (ToR) of the ESG and PTC

The members reviewed the ToR and updated it. They reviewed the functions of the ESG noting that many no longer apply and that some new functions related to the establishment of the ePhyto Solution should be added. The members agreed that the ESG ToR should recognize the role of the ESG in the ePhyto project, which has been recently approved by the Standards and Trade Development Facility (STDF). They also reviewed the membership of the group noting that the IPPC Secretariat is essential to discussions and decisions. They also proposed some changes in the operation of the group.

The members expressed concern that specific members of other project committees have been encouraging review and advancement of approaches which had been previously dismissed by the ESG or PTC following the ESG/PTC's detailed analysis. The members



noted that some of these may relate to misunderstandings of ESG and PTC decisions and agreed to ensure that their discussions and decisions would in future, be more clearly outlined and better communicated.

The members expressed a particular concern over the lack of consultation related to the addition of a specific UN/CEFACT representative to the PTC ToR. They noted that the representative selected was a consultant who had voiced negative comments on the initial ePhyto project proposal to establish a hub. The members also believe that achieving consensus on the operation of the Solution will be difficult given this divergence in technical views. For example, members reported that their view to focus on a simple technical approach that facilitates the exchange of phytosanitary information in manner that is both affordable and practical is in opposition to the view held by the proposed new member to the PTC who has advocated that the Solution should include broader technical capabilities which are not practical under the available funding.

The IPPC Secretariat indicated that the selection of UN/CEFACT to participate on the group¹ was to ensure that the PTC is linked to UN/CEFACT discussions and decisions and that project developments can be factored into UN/CEFACT standards. The members agreed that the involvement of the IPPC in UN/CEFACT and UN/CEFACT in project development could bring needed synergy, but suggested that the UN/CEFACT Bureau should be approached to nominate an appropriate expert that has not been involved with the review of the ePhyto project proposal.

Election of Chair

Following the review of the ToR of the ESG and the initiation of the STDF project, members felt it appropriate to review the position of the Chair of the two groups. The members reaffirmed that it is practical to have a single Chair for both the PTC and ESG as many of the functions either overlap or are integrated. Mr. Peter Neimanis was selected by the members as the new Chair.

The members and the IPPC Secretariat recognized the very important work that was done by Mr. Nico Horn during his term as Chair and thanked him for his dedication. The members suggested that Mr. Horn should continue to Chair the meeting. Following the La Plata meeting Mr. Neimanis would commence his term as Chair.

The members also noted that the ESG and PTC member from the Near East Region has been unable to fully participate given a job change. The members felt that the IPPC Secretariat should review the participation of the Near East region.

Selection of rapporteur

Mr. Dellis agreed to be the rapporteur for the meeting.

¹ The term group is taken to mean the members of the ESG and PTC.



Status of project document/STDF funding

The IPPC Secretariat informed members that following further review and changes to the project document, the STDF Secretariat had approved the project and delivered to the IPPC Secretariat the paperwork necessary to initiate transfer of funding. The STDF and IPPC Secretariat are working toward a project implementation date of 1st November 2016.

The members reviewed a summary of the project plan provided by the IPPC Secretariat. The members commented that a number of items had been changed by the STDF Secretariat. The IPPC Secretariat indicated that the STDF as a donor organization for the project had introduced some requirements to meet its objectives.

System requirements for Hub

Mr. Rai reviewed the process associated with development and design of the Hub. He indicated that the United Nations International Computing Centre (UNICC) has developed a high level requirements document which he then reviewed with the members. Once approved by the members and the IPPC Secretariat, the requirements document will form the basis of a more detailed design document which will guide development and the establishment of an agreement for operation. Once the design document has been approved, UNICC will also develop a more detailed user guide that will allow countries to connect to the hub. A number of issues related to the requirements document were discussed, including:

- The role of UNICC as a certificates authority. It was noted that such a service would add costs to the operation of the Solution. It was further pointed out that some NPPOs already have certificates for other work. Members concluded that NPPOs can easily and affordably obtain certificates from internationally distributed commercial vendors. UNICC indicated that they would assist NPPOs in the process of obtaining a certificate.
- The default time period between re-tries in delivering a certificate from the hub to an NPPO. The time period is generally dependent on the type of consignment (e.g. perishable commodities require that certificates are delivered more expeditiously than commodities that have extended shelf life. Shipments by air may demand a shorter delivery period than shipments by sea. However, it was also noted that failure and re-tries are a rare event and that establishing a single time period is most practical (cost-effective) rather than setting time periods that vary based upon specified criteria. The group proposed that re-tries should be performed routinely for 4 days at which time the message would be deleted from the hub and the sending NPPO notified. The practicality of this time period would be validated during the pilot.
- Multiple recipients of certificates arising from transit shipments (communication with the NPPO of the destination country and the NPPO of the transit country). The group decided that the most practical solution for dealing with the issuance of



certificates moving through a transit country, where the transit country requires certification, is that the NPPO of the exporting country issue a certificate to both the transit and destination countries (same certificate issued to the transit country and destination country). Such an approach would allow an NPPO to communicate with the receiving NPPOs through both the hub and/or through point to point communication, if one of the receiving NPPOs has a bilateral agreement with the exporting country. The process also simplifies hub operations.

- Process for sending envelopes to the hub. The UNICC reported that the service would carry out each transaction as a unique tracking number generated by the hub. The tracking number would link to information on the NPPO of the exporting country; the NPPO of the importing country; a timestamp and another unique identifier (e.g. certificate number). Given that the tracking number could not provide sufficient traceability information regarding multiple certificates, the members suggested that to aid searching for and identifying certificates issued and to simplify the cost of operation of the service; only one certificate would be placed into an envelope.
- Actions taken on invalid envelopes. If an invalid envelope is received by the HUB, the issuing NPPO would be notified and the envelope and information would be deleted. No record of the transaction would be maintained.
- The fields required on the envelope. The members agreed that the fields should be minimized to reduce costs and simplify operation. Information contained in the certificate: should not be repeated unless necessary; should permit tracking by the NPPO and should identify the type of certificate. Therefore, the group concluded that the fields should be limited to:
 - i. Identification of the sending NPPO (ISO 2-digit Code);
 - ii. Identification of the receiving NPPO (ISO 2-digit Code);
 - iii. Certificate type(UNECE code);
 - iv. Certificate number;
 - v. Status (UNECE code) and
 - vi. Optional text field

The ESG felt that inclusion of certificate type and status was critical in allowing the hub to exchange certificates other than phytosanitary certificates in keeping with the objective of ensuring that the project is flexible for broad international application.

- Unscheduled outages. The members noted that such outages are in keeping with existing national systems and with other data systems. Outages should not affect the operation of the NPPO, only the exchange of the certificate. Initially, the UNICC has



proposed a maximum of 24 hours unscheduled downtime per year. This would be unlikely to occur, however.

Selection of the WSDL

The members reviewed the information on the UN/CEFACT WSDL. They noted that the proposed UN/CEFACT WSDL would add complexity to hub operations, given that it was created for point-to-point transmission and is therefore based upon two-way communication. This WSDL therefore is significantly more complex than what is required for the one-way communication of the hub (i.e. hub to NPPO or NPPO to hub). The WSDL proposed for use in the hub is intended to be a simple one-way operation and should reduce the hub's operating costs.

The development of a single WSDL to facilitate hub-NPPO communication should achieve both cost effectiveness and harmonization. A single simple WSDL would significantly reduce the costs associated with connection, since configuration of the web service for each individual WSDL would not be required. In addition, access to communication between NPPOs would be facilitated since NPPOs would be freely provided with the required WSDL and once communicating with the hub no further adjustments would be required to facilitate transaction between all other participating NPPOs. However, to facilitate those NPPOs that may wish to use their own WSDL, the members agreed that the hub should have the flexibility to be configured to receive the data, but the costs of configuration would need to be borne by individual NPPO.

The members indicated that countries with existing national systems will require information on the WSDL well in advance of them connecting to the hub (i.e. commencement of the pilot). The information will be required for countries to determine what work is needed to adjust national systems to communicate with the hub. The members agreed that the WSDL should be released initially in a "pilot" version which would allow for some slight reconfiguration, if required, following the outcomes of the pilot.

System requirements for generic ePhyto national system (GeNS)

As with the hub operation, the requirements document circulated to members was reviewed by UNICC. Once approved the requirements would form the basis for a more specific design document. The members reviewed the requirements for the GeNS.

- Stand-alone and/or web-based central system. The IPPC Secretariat reported that a stand-alone option had been added to the project document at the request of the STDF. It was included to address requests by countries to maintain data within the country. It was not clear if this requirement was a national legal obligation in many countries, a political requirement or a perceived need in maintaining the security of information. A stand-alone system is expected to be very expensive. The following is a summary of the cost considerations:



- i. On-boarding countries is expected to be much greater than a web-based central system because in-country on-boarding activities will be required;
- ii. Maintaining the infrastructure necessary for operation of the system will require that countries have sufficient long term capital to maintain servers, information technology experts, etc.
- iii. UNICC can only offer desktop support for the operation of the software. However, troubleshooting in-country hardware issues will add costs for the country and will likely require assessment by UNICC to identify the cause of issue which will add to the overall operating costs of the Solution.
- iv. Software incompatibility may arise if countries do not undertake required upgrades;
- v. Data storage under a central option is likely to be more secure than on in country servers which are more likely to be subject to failures, loss of data or disasters.
- vi. Many developing countries do not have and may be unlikely to obtain the needed resources to maintain infrastructure over the long term (e.g. in-country Information Technology (IT) staff, hardware, etc.).

Although the members questioned proceeding with a stand-alone option, the members agreed that the stand alone should be scoped and the costs estimated to determine if the development is feasible. The UNICC suggested that they could establish a packaged system (e.g. “one-ICT in a box”) that could be managed remotely. The system would contain the necessary hardware within a single unit that could be installed locally with little technical skill and minimal configuration. Such a system could reduce on-boarding costs, infrastructure, etc. The UNICC agreed to estimate the cost of the hardware, software and the cost of packaging and shipping the system. The system would still require long term maintenance but this could be maintained by UNICC, who would deliver the upgrades, etc. to the country.

The members also agreed that the needs for and practicality of a stand-alone option should more thoroughly investigated.

- Receiving certificates from the hub. The UNICC reported that the GeNS could be configured to allow NPPOs to select push or pull from the hub. However, configuration as push would add costs to the operation of the system to maintain the push service. The members suggested that the system should be configured very simply and minimizing any additional costs. The members concluded that the GeNS should only be configured as pull with flexibility for the NPPOs to configure the scheduling of when the system pulls certificates.
- Offline application for certification. The option of the GeNS producing a word version of the application for phytosanitary certification which may be used by



industry clients to enter information for requesting certification was discussed. Clients who choose to enter data offline can then upload the information to the system at a later time or when the system is available. This would assist with connectivity issues in areas with limited internet capacity. The option would also allow companies with existing electronic systems to transfer data. However, the potential risk of errors in data entry and potential cost of developing this type of option may not make it feasible. The members proposed that the option should be presented for review by the industry advisory group to determine its importance.

- Work flow of the export process. The roles of the actors within the process was clearly analysed to determine the extent to which each actor requires access and what information is required to support the issuance of a certificate. It was noted that the work flow of individual companies and companies acting on behalf of other companies must be included in the work flow of the system.
- Tracking of paper certificates not created by the GeNS. The uploading of paper certificates created by hand writing the certificate or by word processing equipment would add significant complexity to the GeNS work flow and would extend the scope of the system to include certificate management or optical character recognition. The members agreed that to manage costs and to ensure that the system focuses on the intended scope, the GeNS should only allow for the production of paper or electronic certificates and receipt of certificates created by the GeNS. NPPOs should manage paper certificates created outside of the GeNS separately. Guidance will be developed to ensure that the resources required for managing both work flows are minimized.
- The withdrawal of certificates following dispatch. The withdrawal of certificates following the arrival of the shipment in the importing country may result in the NPPO of the importing country being confused as to the compliance of the received shipment. The members agreed that this type of situation requires that the NPPOs of the importing and exporting countries must discuss the status of the shipment to address any concerns outside of the operation of the system. However, it was agreed that the system should include status codes to permit identifying the situation of consignment in the importing country.
- Access to the system for importers to view certificates for imports. The option to view imported consignments would add an additional work flow. For example, a broker/agent would need to have access to multiple importers' information which would create significant complexity in how the system identifies the particular certificates that could be seen by the broker. Furthermore, providing access would require that the importing NPPO would manage the scope of registration of large numbers of clients, which would add significant resource costs to some NPPOs. The group noted that such access may be useful in the future and should be discussed with the industry advisory group.



- Reporting. The group agreed that initially the system should provide only rudimentary reports. The pilot will be used to assess whether these reports are sufficient. The group agreed to identify a list of minimal reports which could be adjusted depending on the outcomes of the pilot.
- Certificates supporting re-export shipments. The functionality of the GeNS should permit the uploading of scanned copies of paper certificates to support re-export certification. Appendix 1 of International Standard for Phytosanitary Measures (ISPM) 12 requires that certificates accompanying a phytosanitary certificate for re-export should be validated by the exporting NPPO. The system should provide some confirmation such as a statement on the printed PDF that “the accompanying PDF is a certified true copy”.
- Language requirements for the system. Following some discussion on the accessibility of the system, members agreed that the system should be accessible in all languages. The system should issue certificates in all languages with the option that any country using the system should be able to select the language of certificate issue regardless of the country’s national language. However the group recognized that many code lists are not translated and that translation of all elements of the system will require both time and costs. Furthermore, national systems may not be able to read multiple languages (e.g. some national systems may only have the capacity to read the English alphabet and may not read characters from Russian, Chinese, etc.). The system will therefore be built initially in English only.

It was also noted that introducing language changes subsequent to implementation will require substantial training prior to implementation as the addition of languages may change the functionality of the system.

- The costing of the system. To determine the appropriate balance between cost and software features, the group agreed that UNICC provide clarity in the costing. UNICC agreed to provide a more detailed analysis of costing once the specifications for the system have been completed and there was clear understanding of software and hardware requirements.
- The name of the GeNS. The members felt that the use of the term “generic” in naming the system could be confusing to countries. “Generic” could be misinterpreted as having a limited functionality. The members proposed that the system should be renamed. The IPPC Secretariat agreed to consult on the name.
- Validation of issued certificates. The members noted that the system must have some means to validate certificates to ensure that importing countries could confirm their authenticity. A web location could be established to permit validation. The specific web location could be included on the issued certificate. Such a system would further secure issuance and ensure that if the system is down, importing NPPOs could check paper certificates issued by an NPPO.



Harmonisation of mapping & codes

The members reviewed the mapping proposed by Messrs. Alessandrini and Dellis. The UN/CEFACT schema identifies elements both at document level and at the consignment level which creates complexity in mapping the phytosanitary certificate to the schema. For example, the schema defines consignments under both EPT 1 and EPT 2. EPT 1 could describe exports that contain mixed consignment or 2 lots of the same consignment. EPT 2 could be used to address multiple lots or a single lot. The members agreed upon an appropriate approach to harmonizing the use of the elements. A number of fields, such as title of officer, etc. are not required in the phytosanitary certificate and these were not included in the mapping.

Where a transit country requires certification, an electronic certificate will be required for both the transit country and the destination country. The members agreed that the exporting country should ensure that the certificate is sent to both countries.

Some countries attach certain documents such as lab tests, treatment certificates and other items to the phytosanitary certificate and in some cases forward these documents to the importing country. ISPM 12 discourages the inclusion of these types of documents.

Certain field codes (e.g. European and Mediterranean Plant Protection Organization [EPPO] codes) may be used as an alternative to text. However, the use of codes as an alternative to text may not necessarily be readable by the receiving country if the receiving country system is not configured to interpret the codes. Countries proposed for the pilot are not using EPPO codes for identifying botanical names. The mandated use of codes may place significant resource burdens on countries with national systems to rebuild systems to accommodate codes. The members therefore agreed that presently only free text fields should be used for additional declarations and botanical names. As codes developed for all botanical names and additional declarations, the mapping could be readjusted to rely on codes only in future. The decision to only use free text offers a cheaper solution to the operation of existing national systems, and is likely to reduce the costs associated with constructing the generic ePhyto national system (GeNS).

To simplify the processes of data entry, the GeNS should have functionality to establish, delete or add to pick lists within some of the fields of the system (e.g. additional declarations, packages, etc.). Many of the fields will also include an "other" field to permit all users to add in new or variations to the existing information within the pick lists. The authority for adding/deleting information on the pick lists should be limited to the NPPO authority.

The codes for commodities and product descriptions are described in multiple layers exceeding the requirements in ISPM 12 and therefore should be simplified. Mr. Horn agreed to undertake work in trying to simplify the listing.

The members agreed that the treatment field should be simplified to a free text field with the perspective that over time coding could be added to the individual components of the



field. The fields each component of the treatment would be individual fields (e.g. “treatment type”, “duration”, “dose”, etc.), but the text in the fields would be forced into a single line.

Review of country assessment process and country work plans

Mr. Neimanis provided a summary of the assessment meetings held in Sri Lanka and Samoa. He noted that there were several challenges in advancing a work plan towards implementation of ePhyto in Sri Lanka, but he was working with Sri Lankans colleagues to overcome these challenges. It was also noted that the assessment in Samoa went very well and that the structure of the Plant Protection Organization in Samoa should facilitate straight forward implementation of ePhyto.

Messrs. Dellis and Alessandrini, indicated that their visit to Ecuador confirmed that the Ecuador national plant protection organization (NPPO) had developed a national system for the production exchange and receipt of electronic phytosanitary certificates. Subsequently, the NPPO indicated that they are willing to withdraw their proposal to utilise the GeNS as a pilot country and would seek participation as a national system operating on the hub. However, it was noted that during engagements with a trading partner, the NPPO had been advised that its participation in ePhyto should not be pursued. The NPPO found the information confusing and contrary to the decisions of the Commission on Phytosanitary Measures.

The IPPC Secretariat noted that it had begun the process of revising the work planning document developed by Australian colleagues. The document has been simplified to make it more directly applicable to an NPPO self-assessment process and to simplify the technical project management language to align it more for use by plant health professionals.

The members noted that there were several workshops proposed or under consideration in the regions. These workshops are being supported by various international organizations. Mr. Neimanis noted that the IPPC had proposed an international symposium in September 2017.

On-Boarding countries

The members proposed the following outline for the on-boarding processes:

For a country with a national system connecting to the hub:

1. The country applies to participate;
2. The country identifies the contact point for direct liaison for implementation;
3. The IPPC approves participation;
4. The UNICC provides the technical information required to adjust the country’s national system to communicate with the hub;
5. The country completes the changes;



6. The UNICC and the country initiate dummy testing;

For a country commencing use of the GeNS:

1. The country evaluates its business processes and determines if it has the capacity, benefits and resources to implement ePhyto;
2. The country implements changes necessary to meet ePhyto operation
3. The country applies to participate in the project;
4. The country identifies the contact point for direct liaison UNICC;
5. The IPPC approves participation;
6. The IPPC/UNICC enter into bilateral legal and technical service agreements with the country;
7. The UNICC provides training;
8. The UNICC and the country initiate dummy testing

Countries intending to participate on the pilot will require an update on the status of the project. The members proposed that an update should be drafted by the Secretariat in the near future. Countries with national systems will also require information on the WSDL, information on the mapping and the envelope XML to undertake exchanges with countries that are not currently exchanging under a bilateral arrangement. A specific update on changes required for countries with national systems should also be prepared.

Funding ePhyto

The members noted that that without a clear understanding of the costs of operation, it is very difficult to estimate the approaches that could be used to fund operation of the system. The group noted that there are a number of aspects to funding the ePhyto Solution that are important considerations including whether countries are willing to support the costs through donations; whether the operational costs are of a magnitude of 5 or 6 which would of course influence the willingness of members to donate; etc. The members suggested that these considerations should be well documented prior to the commencement of discussions on the development of a funding approach. Mr. Horn agreed to develop a working paper to share with members on considerations that should be taken into account in the development of a funding approach.

PTC work plan

Action item	Due date	Responsible
Evaluation of ASYCER for use as the GeNS	TBD	
Proposal for GeNS	TBD	



Action item	Due date	Responsible
Circulate the presentations related to the requirements documents	15 October 2016	Rai
Review of the document "Implementing the ePhyto Solution... Document 15"	20 October 2016	Members
Finalize the requirements documents for the hub	20 October 2016	Rai
Draft of the specification of WSDL and schema for the envelope provided to members	24 October 2016	Rai
Identify the expected number of users that may use the GeNS in the three pilot countries	30 October 2016	Karunaratne, Sela
Revise the mapping document based on member comments and create a mapping document for the GeNS which identifies who should have access to providing information related to these fields; etc.	30 October 2016	Dellis
Nico Horn to provide a revised commodity code listing to the members for review	10 November 2016	Members
Finalize the requirements documents for the GeNS	11 November 2016	Rai
Approval of the hub requirements document by the IPPC Secretariat	11 November 2016	Members and Secretariat
Review the membership of the PTC with respect to UN/CEFACT involvement and follow-up with UN/CEFACT	15 November 2016	Sela
Provide design proposal for the hub for review by members	15 November 2016	Rai
Identify the format for supplying missing species listings in the EPPO database and circulate to members for distribution within their regions	30 November	Horn
Define the types of report required to be produced by the GeNS	30 November 2016	Neimanis
Approval of the generic system requirements by the IPPC Secretariat	2 December 2016	Members and Secretariat



Action item	Due date	Responsible
Identify the costs associated with establishing a stand-alone system including the costs of software, a packaged system and the costs of on-boarding that system	2 December 2016	Rai
Develop ePhyto report for CPM and determine what will be presented at CPM.	15 December 2016	Sela
Develop finalized listing of commodity codes	30 December 2016	Horn
Develop a working paper on considerations related to the development of a funding approach	30 December 2016	Horn
Develop and distribute an information package to countries piloting national system on the hub regarding the implementation of the systems (WSDL information, mapping, XML schema for the envelope, etc.). Request information on when the country will be ready to implement (deadline of January 30).	1 January 2017	Sela
Approval of the hub proposal by members and IPPC Secretariat	1 January 2017	Members, IPPC Secretariat and FAO
Define the process for countries to participate on the pilot (step-wise procedures associated with joining the hub)	15 January 2017	Members
Identify the technical service agreement with countries using examples provided by members	15 January 2017	Sela
Determine the FAO rules for connection (legal agreement with countries to participate);	15 January 2017	Sela

Calendar of events

The members noted that a work planing calendar has been posted at: <https://teamup.com/ks30e59be36e82135e>. The members agreed to continue to post ePhyto events and other events that may affect the delivery of ePhyto on the calendar.

Date and location of next meeting

13-18 March 2017 in Victoria, BC, Canada



Interim conference calls

The members decided to continue with the monthly conference calls. The calls will be scheduled for 3PM Central European Time on Wednesdays. The IPPC Secretariat will send out a listing of calls until the next face-to face meeting.