Assessment of Different Models for Funding of the International Plant Protection Convention (IPPC) HUB

1. Annual costs of operating the HUB and Generic system are estimated to be $350,000 - $450,000 per annum, ***exclusive*** of capacity development activities such as, but not limited to, in-country or regional training, assessment and support in changing legal systems, assessment and support for developing the NPPO. For sustaining Hub operations, the average monthly cost is $14,000. Monthly costs for the GeNS will be somewhat higher due to additional costs related to the system for items such as storage, but the average is expected to be $20,000 per month.
2. Challenges of the per transaction model were outlined in the attached paper to Bureau in June.
3. This paper discusses the viability of some donor and per-transaction models, and provides a recommended model for discussion at SPG and Bureau in October 2019.

# Background

1. The ePhyto Solution project is an initiative of Commission on Phytosanitary Measures (CPM) 9 (2014) which seeks to advance the implementation of electronic phytosanitary certification (ePhytos). The project is supported by the Standards and Trade Development facility and a number of donor countries. The project seeks to establish a centralized system to facilitate the exchange of ePhytos between National Plant Protection Organizations (NPPOs) and a Generic ePhyto National System (GeNS), which is a web-based system to allow countries without their own technology system to produce, send and receive ePhytos in the correct format which is exchanged with other participating NPPOs through the hub.
2. The development and implementation of the hub was completed in March 2018 following 5 months in which more than 10, 000 electronic certificate exchanges were undertaken by the 10 pilot countries. The ePhyto Steering Group (ESG) met in Dublin, Ireland from the 28th May to 1st June. Hosted by the Irish Department of Agriculture Food and the Marine, the ESG finalized the details of transitioning the hub from pilot to business as usual operation. At present 18 countries have registered to use the hub.
3. The ePhyto Hub and GENS system is a major achievement for the IPPC in supporting safe trade. The system forms a critical infrastructure enabling contracting parties to provide phytosanitary certificates to trading partners with increased confidence in the information.
4. The system is able to be extended in future to include the transfer of other certificates such as sanitary certificates, organic certificates, wine certificate etc. the extension to other certificates will expand the funding base and with wider support and function, ensure the future for the Hub and GENs systems.
5. The Hub and GENS system have been developed to a point that they can be used by CPs, however the maintenance and enhancements requires ongoing support in the form of expert personnel and funding. A long term funding model must be developed to ensure the long term sustainability of the system.
6. CPM Bureau (June 2019) tasked a small group to consider resourcing options for ePhyto to ensure the system is sustained for all CPs.

# Considerations

1. The following criteria were considered in developing funding models. The funding model must:
* be sustainable
* be easy to administer
* cover the full cost of maintenance and enhancement of ePhyto. Consideration should also be given to models that will provide additional revenue to support other IPPC activities.
* reflect the costs and benefits for each participant
* extendable to participants using non-phyto applications. Consideration should also be given to models that can be extended to other IPPC activities such as the ISPM 15 label registration.
* provide CPs with the time and support to develop a cost recovery model prior to full implementation
* should only apply to CPs who exchange a minimum number of certificates (1000?) to reflect the administration costs and benefits to those CPs.
1. The following models were examined and considered against the criteria:
* Contracting Party support model
* Donation support model
* Transaction-based model
* Enhanced transaction based model
1. An outline of each model with pro’s and con’s is provided along with the recommended model. Further details of some aspects of the recommended model is listed in the Appendix.

# Country support model

1. Funding would result from regular calls for donations from contracting parties. These donations would need to be additional to current donations. This model relies on on-going donations from Contracting Parties to the IPPC, but targeted to support ePhyto.
2. Pros:
* relatively easy to administer, and extends the current funding model
1. Cons:
* Current funding already falls short of budget.
* Model difficult to extend to other certificates when these are brought on board
* Not sustainable
* Funding will fall to a small number of CPs and not encourage others to participate (leave it to developed countries)
* Difficult to extend to other standards (ISPM 15)

# Donation support model

1. This model is an extension of country support model. It relies on donations supplied by CPs to be expanded to include funding agencies that may support participation by CPs who do not/ cannot provide their own funding support.
2. Pros:
* relatively easy to administer, and extends the current funding model to donor agencies
1. Cons:
* Current donation funding already falls short of budget
* Difficult to ensure targeted donations are delivered to ePhyto and not diverted
* Model difficult to extend to other certificate when these are brought on board
* Not sustainable
* Difficult to extend to other standards (ISPM 15)

# Transaction based model

1. Under this model participants (those sending the certificate) will be charged on a fee per certificate or transaction basis. A standard fee will be applied to each certificate presented (including each re-issued certificate). Accounts will be sent to each participant (each CP or other country sending a non-phyto certificate).
2. Pros:
* Relatively easy to administer provided some bulking of transactions occurs (eg monthly billing)
* Easy to extend to other parties wishing to send/receive non-phyto documents.
* Reflects actual costs and benefits to users.
1. Cons
* Many countries do not have systems in place to recover the costs
* Individual chargeable transactions may be difficult to determine through the hub (the hub sees ‘envelopes’ not the contents, so cannot determine which contain what sort of certificate

# Enhanced transaction based model

1. This model assumes that a standard invoicing regime (eg monthly invoicing for the number of transactions in the previous month) is not viable, or is too expensive. For example, while the cost of the system is likely to be relatively static month to month, there may be considerable variation in the number of certificates exchanged on a month to month basis because of seasonal factors. Hence an annual billing cycle is proposed.
2. This model extends the transaction based and takes other factors into account as follows:
* Each certificate/ transaction delivered should be charged on a per-transaction basis
* The transaction fee should be calculated on the cost of maintenance and future development of ePhyto divided by the number of transactions (certificates or information exchanges).
* Costs incurred once certificate numbers reach more than a set minimum amount from any one CP.
* All non-phytosanitary certificates/exchanges will be charged to the relevant party.
* Charges will be applied in advance based on the number of certificates transacted in the previous year. In the first year the fee should be based on predicted use and thereafter based on the last year’s usage.
* Charges for phytosanitary certificates will not be mandatory for the first 3 years.
* Charges are mandatory for all other certificates.
* Non-payment will result in suspension of the party from sending certificates to the Hub following two years of non-payment of the fees.
1. Donations should be requested to support the following work program:
* An implementation program to set up a cost recovery system in developing countries. Cost recovery could be internal (eg exporters) or through ongoing donations.
* The program should fund existing Hub costs (ie fund the transaction costs for up to three years) as well as the development of the cost recovery system.
* All CPs are expected to be fully cost recovered by 2030, and should no longer rely on specified donations for ePhyto.
1. Pros:
* Relatively easy to administer.
* Easy to extend to other parties wishing to send/receive non-phyto documents.
* Reflects actual costs and benefits to users.
* The actual costs of the system per transaction can be calculated easily.
1. Cons
* Many countries do not have systems in place to recover the costs.
* Individual chargeable transactions may be difficult to determine through the hub (the hub sees ‘envelopes’ not the contents, so cannot determine which contain what sort of certificate).
* An annual change may result in very high invoices for high users, which may impact the ability to pay on time. Monthly accounts would reduce this risk.

# Recommendations:

1. Bureua and SPG is invited to:
2. Note the options considered in this paper.
3. Discuss the alternative models, including the advantages and disadvantages of each.
4. Agree that an enhanced per-transaction model should be developed by the ePhyto Steering Group for implermentation by contracting parties wanting to use the ePhyto Hub.
5. Agree that a donor funded workplan be established to, if requested, help developing countries develop an appropriate cost recovery system.

# Appendix 1: Draft details of the Proposed Model

* Each certificate delivered should be charged on a per-transaction model [if certificates cannot be identified from other information exchanges, eg acknowledgements, then the total exchanges will be the basis of costing]. For example, one phyto exchanged may result in four other exchanges of information (certificate, acknowledgement, notification of acceptance or not, replacement certificates etc).
* All certificates/transactions should be charged a base transaction fee (eg US$0.15) plus an additional cost for non-phyto certificates (eg US$0.05 = total US$0.20 per certificate transaction). The additional cost to non-phyto certificate users reflects the development of ePhyto by IPPC CPs. The additional cost may be limited by time or number of transactions.
* The transaction fee should be calculated on the cost of maintenance and future development of ePhyto divided by the number of transactions (certificates or information exchanges).
* Costs will only be charged once phyto cert numbers reach more than 1000 units from any one CP. This is based on the relatively high administrative costs of charging low volume users, who benefit least from the system.
* All non-phyto certificates will be charged to the relevant party.
* Charges will be applied in advance based on the number of certificates transacted in the previous year. In the first year the fee should be based on predicted use and thereafter based on the last year’s usage.
* Charges for phyto certificates will not be mandatory for the first 3 years (to allow time for CPs to set up their cost recovery or donation systems).
* Charges are mandatory for all other certificates.
* Non-payment will result in suspension of the party from sending certificates to the Hub following two years of non-payment of the fees. Certificates should still be received by the CP because the exporting CP should not be dis-advantaged.
1. Donations should be requested to support the following program:
* An implementation program to set up a cost recovery system in developing countries. Cost recovery could be internal (eg exporters) or through ongoing donations.
* The program should fund existing certificate costs (ie fund the transaction costs for u to three years) as well as the development of the cost recovery system.
* All CPs are expected to be fully cost recovered by 2030, and should no longer rely on specified donations for ePhyto.