AGP: MTF/GLO/368/STF

GLOBAL PHYTOSANITARY MANUALS, STANDARD OPERATIING PROCEDURES AND TRAINING KITS

Terminal Report
prepared for the Standards and Trade Development Facility (STDF)
by
the Food and Agriculture Organization of the United Nations

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
Rome, 2015

List of abbreviations

COPE	*Centre of Phytosanitary Excellence, established in 2010 and based in Nairobi, Kenya.*
CDC	*Capacity Development* Committee (of the IPPC)
CPM	Commission on Phytosanitary Measures
EWG	Expert working group; in this project referring to the EWG on Capacity Development (EWG-CD) established in 2010 by the IPPC.
FAO	Food and Agriculture Organization of the United Nations
IPP	International Phytosanitary Portal (of the IPPC)
IPPC	International Plant Protection Convention
ISPM	International Standards for Phytosanitary Measures
NPPO	National Plant Protection Organization
PCE	Phytosanitary Capacity Evaluation
PRA	Pest Risk Analysis
RPPO	Regional Plant Protection Organization
SOP	Standard Operating Procedure
SPS	Agreement on the Application of Sanitary and Phytosanitary Measures of the WTO
STDF	Standards and Trade Development Facility
USA	the United States of America
WTO	World Trade Organization

1. Background

Contracting parties[1] that have received technical assistance from the International Plant Protection Convention (IPPC) in the past have often identified there is a chronic lack of capacity to develop the documentary procedures for core areas such as import verification, export certification and plant pest surveillance. Management challenges such as lack of trained personnel, information systems, and operational procedures to perform the tasks required of a national plant protection organization (NPPO) are principal weaknesses of developing country contracting parties implementation of the Convention. Most contracting parties rely on a small pool of technical resources to operate a phytosanitary system and find it difficult to prioritise the development of the documentary procedures needed. This leads to weak phytosanitary systems that are unable to effectively protect domestic agriculture and plant resources from pests and diseases.

This project took the first step to make available a set of globally relevant resources to support implementation of core functions of NPPOs. More specifically, these resources included manuals, standard operating procedures (SOPs) and training kits outlining the processes and procedures to fulfil national obligations under the IPPC and implementation of international standards for phytosanitary measures (ISPMs). The topics for the resources requested for contribution and development were selected on the basis of a priority setting process that identified the most pressing needs emerging from the phytosanitary capacity evaluations (PCE) conducted by the IPPC Secretariat in more than 120 countries as well as global surveys conducted to analyze implementation challenges among IPPC contracting parties.

All resources within this project were developed to be technically compatible with the World Trade Organization (WTO) and in particular the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement), the Convention and as a component of the IPPC National Phytosanitary Capacity Building Strategy and with the oversight of the IPPC Capacity Development Committee (the steering committee for this project). Resources were developed to be globally applicable and therefore are able adaptable to national-level needs.

This project was determined to be consistent with the strategic aims of Standards and Trade Development Facility (STDF) in assisting developing countries to enhance their expertise and capacity to analyze and implement international standards and improve their human animal and plant health situation.

The concept for the STDF350 project was endorsed by Australia, the Republic of Côte D'Ivoire, Ghana, Jamaica, Malaysia, the Netherlands, Papua New Guinea, Sudan, the United States of America (USA), the Centre of Phytosanitary Excellence (COPE) of Kenya, the Comite de Sanidad Vegetal del Cono Sur (COSAVE), the Food and Agricultural Organization of the United Nations (FAO), the Inter-American Development Bank, the Inter-American

1 There are 182 signatories who adhere to the International Plant Protection Convention (the Convention), known as contracting parties. Countries that wish to become contracting parties to the IPPC must deposit their instrument of adherence with the Director General of FAO.

Institute for Cooperation on Agriculture (IICA), the International Pest Risk Analysis Advisory Group (IAGPRA), the IPPC Secretariat and the STDF.

2. Outline of official arrangements

The project was requested by Australia, the Republic of Côte D'Ivoire, Ghana, Jamaica, Malaysia, the Netherlands, Papua New Guinea, Sudan and the United States of America (USA) and due to its global scope, applicants requested the IPPC to implement it on their behalf.

The main operational funds for providing the assistance was approved in March 2011 by the STDF in project STDF350, "Global Phytosanitary Manuals, Standard Operating Procedures and Training Kits Project" with a budget of US$ 600 000. Through an agreement between the WTO (administrative host of the STDF) and FAO, a parallel supervisory component was established in project MTF/GLO/368/STF, "Global Phytosanitary Manuals, Standard Operating Procedures and Training Kits Project" with a budget of US$ 152 000 of IPPC in-kind contribution.

The project was approved to start in February 2012 and end in January 2014, however due to staffing challenges faced during the project an additional no-cost extension was requested at the October 2014 STDF working group meeting, and was granted until 31 July 2015.

The project oversight was ensured by the IPPC Capacity Development Committee (CDC), comprised of technical representatives from the seven FAO regions. The CDC acted as a steering committee for the project, regularly reviewing the work plan and timeline. Strategic direction and decisions taken by the steering committee related to project implementation, including selection of the resources to be developed, experts for drafting and dissemination channels. The CDC also acted as a project technical committee, as it technically assessed contributed resources for suitability and peer reviewed new resources during development. The CDC met face to face in its capacity as the project steering committee on nine occasions and held teleconference meetings twice during intervals.

3. Objectives of the project

The primary objective of this project was to enhance the global capacity in protecting plant resources from pests and diseases, but specifically developing contracting party NPPOs to implement the IPPC and ISPMs by providing them with internationally accepted technical resources. These resources included manuals, SOPs and training kits, contributed or developed and are available for use in the management of a phytosanitary system covering core plant health areas such as import verification, export certification and pest surveillance, pest diagnostics and pest risk analysis (PRA) among others.

Use of technical resources by contracting parties should stabilize their national plant health systems, enhance their capacity to meet their international obligations, improve/maintain access to external markets and/or support national import and export certification programmes.

This activity is directly in line with the IPPC Phytosanitary Capacity Building Strategy developed in 2010 and contributes specifically to its outcomes 3 and 5.

The expected outputs of the project were:

- A website to host all technical resources accessible to IPPC contracting parties, plant health professionals and the general public.
- Collect existing technical resources that are consistent with the Convention and ISPMs, or adapt them for consistency, where possible, and make them available to contracting parties.
- Undertake an assessment and gap analysis of technical resources needed by contracting parties that are not already available.
- Develop high priority resources needed by contracting parties.
- Test developed resources on contracting parties and other relevant stakeholders.

The project targets included:

- Development and management of a website to host contributed and IPPC developed technical resources.
- Collated library of contributed technical resources, consisting of manuals, reports, guidelines, training materials, diagnostic protocols, presentations, tools etc.
- Development of 20 technical resources, consisting of manuals, SOPs and training kits consistent with the IPPC and ISPMs.
- The technical resources of the project are be available to the 182 contracting parties of the IPPC and all the signatories of the WTO-SPS agreement and non-members of both agreements.

4. Results and conclusions

Methodology and procedures

The project was undertaken in three phases, including collection and review of contributed resources, a needs assessment and gap analyses to determine areas where resources don't exist as well as development and testing of high priority resources.

1. Existing resources are collected, reviewed and made accessible to contracting parties

The IPPC Secretariat issued an open call for technical resources on plant protection (including manuals, training materials, photos, and other products), in any language, in order to identify and make available existing resources to support and strengthen plant health systems. Stakeholders contributed over 300 resources, including diagnostic protocols (54%), pest information (27%), manuals and guides (8%) and various other resources (11%).

The CDC analyzed (under specific criteria) each of the contributed resources for their usefulness, relevance and compatibility with the IPPC and posted these on a website designed to facilitate access to resources online (Phytosanitary Resources). Of the resources contributed 95% were in English and other languages included French, Japanese and Spanish. When a resource was received that wasn't in an official FAO language an expert in the subject area and language was sought to analyze the document as an in-kind contribution.

This initiative aimed at building on existing work, avoiding duplication of effort and using scarce project resources to develop new resources that fill the outstanding gaps. From the

resources that were contributed, it was evident there were fewer 'ready to adapt' resources than anticipated. When considering the suitability of adaption of existing resources, it was clear that it was not necessarily less resource-intensive than development of new resources.

Given the success of the call for technical resources related to plant protection (in any language), the CDC decided to make the call ongoing and to urge contracting parties to continue submitting useful resources.

2. *Contracting parties needs for technical resources are assessed and a gap analyses is carried out*

The IPPC Secretariat and CDC analyzed needs for guidance manuals, basic training materials and operational procedures that were identified during extensive experience in phytosanitary capacity development. This included general needs identified during the application of PCEs as well as through surveys carried out within the IPPC's Implementation Review and Support System (IRSS) that gathered information on contracting parties successes, challenges and gaps in capacity for implementation of the Convention and its standards. A list of all the topics in which contracting parties expressed a need for resources was drawn (Annex 2) and compared to the list of existing resources. A gap analysis was undertaken and outstanding needs were identified.

The CDC established criteria to prioritize topics for new resources for which no valid equivalent exists. These criteria include relationship to management of NPPOs, responses to emerging issues, and lack of existing resources to address the various topics (Annex 3). The technical resources that were not developed in this project are outlined in Annex 4.

3. *High priority resources were developed and tested*

New resources were developed by groups of experts, instead of single experts, to incorporate a range of approaches in order to ensure global applicability. Resources were peer reviewed by selected experts, the CDC (including technical experts from the seven FAO regions), the technical consultation among regional plant protection organizations (RPPOs) and the IPPC Secretariat and made available for use and adaptation by all contracting parties.

The resources were developed through a range of partnership arrangements to engage on-the-ground collaborators to contribute content, expertise, and commit to long-term use and feedback of the materials. Such partnerships included collaboration with the IAGPRA to identify PRA and other experts to contribute to the project and in reviewing outputs at a workshop organized by the United Kingdom (UK), IICA's commitment to the development of the Commission on Phytosanitary Measures (CPM) participation resources and the New Zealand Plant Health & Environment Laboratory and the UK Food and Environment Research Agency development and review on the diagnostics manual. Additionally, relationships were established with several contracting parties (South Korea, Vietnam and the UK) and one regional plant protection organization (OIRSA) to validate, use and provide feedback on the draft resources. An example of contracting party collaboration included South Korea hosting the Stakeholder Management workshop to pilot-test the draft manual content.

Project achievements

1. *Contributed resources:*

As of December 2015 there are 317 resources that have been contributed to the IPPC that have been posted on the Phytosanitary Resources website. These contributed resources have all been reviewed under an established criteria by the project steering committee for consistency with the IPPC. A further 19 contributed resources are going through the steering group review process.

The Phytosanitary Resources website now includes 317 contributed technical resources that are freely available. These include e-learning modules, manuals, training materials, diagnostic protocols, videos, advocacy materials, photographs, a roster of consultants and databases of projects and activities. The materials support the implementation of the IPPC and its standards, and are in line with the IPPC National Phytosanitary Capacity Development Strategy approved by the CPM. The materials also support efforts to fulfil objectives of the IPPC's adopted Strategic Framework (2012–2019).

2. *IPPC developed technical resources:*

More than 181 contracting parties in seven FAO regions will have direct access to the technical resources developed under this project, as outlined in Table 1. These technical resources are available free of charge and are accessible from the Phytosanitary Resources website and also by link from the STDF website. Among the resources are photographs of plant pests compiled through the IPPC 'Pests without Borders' photo competition, which was undertaken by the Secretariat to raise awareness of plant protection.

Through the ongoing work activities of the project steering committee a continued process of "fine tuning" will take place, with the technical resources updated on an as-needed basis, with appropriate informational announcements distributed via the Phytosanitary Resources website 'Latest Updates' function and through existing fora. By making these technical resources permanently available, and regularly updated to reflect changes in science and technique, contracting parties will be able to keep pace with developments and apply them in a timely fashion.

3. *Use of IPPC developed technical resources:*

The technical resources that have been developed under this project have been used in various ways by different IPPC stakeholder groups, extending far beyond the intended use by IPPC contracting parties and specifically their NPPOs. The many examples of the use range from pilot testing of technical resources at two pre-CPM preparatory workshops and a regional workshop, adaptation and translation of technical resources to national contexts, displays and publications of photo posters in international settings, introduction and promotion of resources at IPPC's annual CPM meetings and many others. Specific examples are outlined in Table 1.

4. *Reviewed Phytosanitary Resources website:*

The Phytosanitary Resources website has been reviewed for user-friendliness and to ensure the STDF 350 collated contributed resources and newly developed technical resources are easily accessible to users. The review has identified the following aspects for website improvement:

- re-organization of information architecture
- improved search functionality, including re-categorization (and associated naming conventions) of resources
- improved external visibility of the website on search engines
- updated website text
- development of a Photo Library of IPPC related images (including the photo contest photographs)
- improved functionality of the ‘More like this’ mechanism on the website
- update of the website metrics (to facilitate future user monitoring)

Table 1: Technical resources developed under project STDF350*.

Resource name	Resource type	Completion date	Description	Resource use
Phytosanitary Resources website	Website	July 2012	Developed to host contributed and IPPC developed technical resources	The website has been actively promoted by the IPPC during meetings and workshops with contracting parties, RPPOs and other plant health specialists since July 2012. Practical exercises on the use of the website were conducted during 2014 and 2015 IPPC regional workshops and Moldova PCE workshops in (June and October, 2015).
E-learning of trade of forestry commodities	E-learning tool (interactive)	March 2013	Online course for understanding trade in forest commodities and the role of phytosanitary measures.	Adapted by the US into a North American version and translated into French. Presented at International Union of Forest Research Organizations (IUFRO) (2014).
Dialectric heating treatment quick guide	Factsheet	April 2014	Guide to provide information on dialectric heating as a phytosantitary treatment for wood packing material.	Launched at CPM 9 (April, 2014) side session. Translated with funds from other IPPC projects. http://www.phytosanitary.info/information/video-cpm-9-capacity-development-side-session-awareness-raising-materials-pest-risk

Managing relationships with Stakeholders manual	Manual	November 2015	A manual for NPPOs to understand how to manage relationships with different stakeholders	Launched at CPM 10 (March, 2015) side session. http://www.phytosanitary.info/activity/cpm-10-side-session-ippc-technical-resourcemanual-managing-relationships-stakeholders Used at the joint IPPC/International Centre for Advanced Mediterranean Agronomic Services (CIHEAM) training course: Developing Phytosanitary Capacity (November, 2015). Hard copy of the manual provided to all CPM 11 (March 2016) participants.
Managing relationships with stakeholders factsheet	Factsheet	March 2015	Factsheet to introduce and promote use of the managing relationships with stakeholders IPPC technical resources, available in official FAO languages.	Made available during CPM 10 (March, 2015) to promote technical resources developed under the STDF350 project.
Establishing a NPPO manual	Manual	November 2015	A manual outlining the principal requirements for establishing an NPPO.	Launched at CPM 10 (March 2015) side session. http://www.phytosanitary.info/activity/cpm-10-side-session-ippc-technical-resourcemanual-establishing-nppo PCE training workshop in Zambia in October 2015. Referenced in the IPPC National Reporting Obligation

				(NRO) updates (2015 and 2016). Hard copy of the manual provided to all CPM 11 (March, 2016) participants.

Operation of a NPPO manual	Manual	November 2015	A manual outlining the principal requirements for operating an NPPO.	Launched at CPM 10 (March, 2015) side session. http://www.phytosanitary.info/activity/cpm-10-side-session-ippc-technical-resourcemanual-establishing-nppo PCE training workshop in Zambia in October 2015. Hard copy of the manual provided to all CPM 11 (March, 2016) participants.
Establishment and operation of NPPOs factsheet	Factsheet	March 2015	Factsheet to introduce and promote use of the establishment and operation of NPPOs IPPC technical resources, available in official FAO languages.	Made available during CPM 10 (March, 2015) to promote technical resources developed under the STDF350 project.
Establishing a NPPO training kit	Training kit (workshop training presentations)	December 2015	A modular training kit for plant health professionals to train in establishment of a NPPO.	Used at the joint IPPC/International Centre for Advanced Mediterranean Agronomic Services (CIHEAM) training course: Developing Phytosanitary Capacity (November, 2015).
Operation of a NPPO training kit	Training kit (workshop training	December 2015	A modular training kit for plant health professionals to train in operation of a NPPO.	Used at the joint IPPC/International Centre for Advanced Mediterranean Agronomic Services (CIHEAM) training course: Developing Phytosanitary Capacity (November, 2015).

	presentations)			

Import verification manual	Manual	December 2015	A manual outlining import verification as an aspect of the broader subject of import regulation.	Used at an OIRSA workshop (February, 2015). Used at the joint IPPC/International Centre for Advanced Mediterranean Agronomic Services (CIHEAM) training course: Developing Phytosanitary Capacity (November, 2015).
Export certification manual	Manual	December 2015	A manual outlining establishment and operation of a phytosanitary export certification system.	Used at the joint IPPC/International Centre for Advanced Mediterranean Agronomic Services (CIHEAM) training course: Developing Phytosanitary Capacity (November, 2015).
Diagnostics manual	Manual	December 2015	A manual providing a guideline for establishing a plant pest diagnostic laboratory.	Launched at CPM 10 (March 2015) side session. http://www.phytosanitary.info/activity/cpm-10-side-session-ippc-technical-resourceplant-pest-and-disease-diagnostic-manual Used at the joint IPPC/International Centre for Advanced Mediterranean Agronomic Services (CIHEAM) training course: Developing Phytosanitary Capacity (November, 2015).
Plant pest surveillance manual	Manual	December 2015	A manual providing information to support the surveillance activities that NPPOs need to undertake as part	Used at Expert Working Group meeting for review of ISPM 6 (September, 2015). Used at the joint IPPC/International Centre for Advanced Mediterranean Agronomic Services (CIHEAM) training course: Developing Phytosanitary

			of national phytosanitary systems and for international obligations.	Capacity (November, 2015). Hard copy of the manual provided to all CPM 11 (March, 2016) participants.
Plant pest surveillance factsheet	Factsheet	March 2015	Factsheet to introduce and promote use of the plant pest surveillance IPPC technical resources, available in official FAO languages.	Made available during CPM 10 (March, 2015) to promote technical resources developed under the STDF350 project. http://www.phytosanitary.info/activity/cpm-10-side-session-ippc-technical-resourceplant-pest-and-disease-diagnostic-manual
Pest risk analysis awareness raising materials	Advocacy material (4 videos, 4 workshop training presentations, 4 posters)	April 2014	Advocacy material promoting the importance of pest risk analysis as an important tool in agriculture, trade, food security and the environment.	Launched at CPM 9 (April, 2014) side session. Products used at several IPPC and external events. http://www.phytosanitary.info/information/video-cpm-9-capacity-development-side-session-awareness-raising-materials-pest-risk Presented at the Inter-agency Liaison Group on Invasive Alien Species meeting (January, 2014). FERA workshop in Egypt (2014).
Manual of good practices: For participating in the International Plant	Manual	December 2015	A manual outlining the best practices for IPPC contracting parties to participate in the annual	Used at the joint IPPC/International Centre for Advanced Mediterranean Agronomic Services (CIHEAM) training course: Developing Phytosanitary Capacity (November, 2015).

Protection Convention Commission on Phytosanitary Measures meeting			CPM meeting, including before, during and after the meeting.	
Manual of good practices: support materials	Manual supplementary resources (CPM participant handouts and information sheets)	July 2015	Supplementary resources to assist contracting parties participate in CPM.	
Participation in the Commission on Phytosanitary Measures (CPM)	Online guide	March 2014	Online guide to facilitate participation of contracting parties in CPM and other meetings.	Launched at CPM 9 (April 2014) side session, available in Spanish and English. ASEAN training by QIA in Korea (2014).
Introduction to the International Plant Protection Convention presentation	Advocacy (presentation)	September 2015	General presentation for contracting party use to facilitate understanding of the main elements of the IPPC and its implementation	
IPPC technical	Advocacy	September	General presentation to	Presented at CPM 10 (March 2015) to promote technical

resources presentation	(presentation)	2015	support understanding of IPPC technical resources available.	resources developed under the STDF350 project. http://www.phytosanitary.info/activity/cpm-10-side-session-ippc-technical-resourceplant-pest-and-disease-diagnostic-manual
Photo contest 'Pests without Borders' posters	Posters (30 hard backed posters)	March 2015	Printed hard backed photo posters (75cm by 50cm) for display and electronic files available for download. These photos demonstrate how plant pests are a major threat to the world's plant resources, which the IPPC works to protect and prevent pest spread and introduction.	Photo posters unveiled at CPM 10 (March, 2015). Posters displayed at SPS and STDF events (April, 2015). Photo contest photos published in National Geographic Italy, La Repubblica and FAO strategic objective poster (April, 2014).

*Unless otherwise stated, all resources have been developed and are available in English.

Conclusion

The availability on the Phytosanitary Resources website of over 300 contributed technical resources in the plant health area and development of 20 priority technical resources by the IPPC is a significant step towards providing contracting parties the resources they need to enhance capacity of their national plant health systems.

Under the oversight of the project steering committee, the IPPC Capacity Development Committee, the IPPC Secretariat has undertaken a series of work activities to assess contracting parties needs for implementing the Convention and ISPMs and has collected existing resources and developed new technical resources in high priority areas.

The IPPC Secretariat encountered some challenges during the project including instability of staffing for management of the project, experiencing administration delays in establishing procurement frameworks to contract external service providers and the availability and method of working with experts to assist in development and peer review of resources. From these challenges the IPPC Secretariat has learnt several lessons to be aware of in future projects. Unfortunately these challenges resulted in delays in work and it was necessary to request for a no-cost project extension.

There are several steps the IPPC Secretariat will undertake following closure of this project to continue the excellent work that has already been done. These include monitoring feedback on technical resources and updating them as necessary, facilitating the use of the technical resources by contracting parties to enhance their national capacity, encouraging the translation of technical resources into other official FAO languages, continuing the call for technical resources in plant health priority areas, continuing the development of technical resources in identified priority areas and making improvements to the Phytosanitary Resources website.

5. Recommendations

Challenges and lessons learned

1. Value of building on existing work
This project provided a unique opportunity to make technical resources available to contracting parties in a more efficient way, that is issuing a call for resources, assessing them for suitability, adapting resources where possible and developing new resources in key plant protection areas where they don't currently exist. The value of this approach is that a large variety of high quality resources are now available, having either been reviewed by technical experts (CDC representatives) or developed by technical experts.

2. Staffing operational management
The initial project manager had been contracted on a temporary consultancy basis. Attempts were made to find an alternative approach to contract this person, but it was not possible and resulted in a four month delay between successive contracts. The steering committee agreed to place most project activities on hold during this period and re-start work upon return of the project manager. However, issues arose upon re-starting work due to service providers having several months hiatus and resumption of work activities was found difficult due to their availability and the limited time left in the project.

Following the project delay outlined above, the initial project manager resigned from duties, which resulted in further disruption to completion of project activities. The replacement project manager also encountered difficulties with re-engaging service providers to complete work, given the absence of hand-over from the initial project manager and the limited timeframe to project closure. Future projects should ensure that sufficient staff time is allocated to project management activities throughout the entire duration of the project.

3. Service provider contract administration (lengthy establishment of agreements)
Implementation of procurement and contracting procedures to allow for contracting the type and volume of service providers necessary for the project required significant start-up time and energy. This was a major challenge and limitation to project activities. However, once procurement frameworks were established, contracting project activities were more efficient. Future projects will benefit from the established agreements now in place, therefore contracting delays will not occur again for this reason.

4. Availability of experts
The number and availability of many experts that were identified to able to assist in development of technical resources was a limiting factor. To address this, the Secretariat worked to organize tasks among groups of contributing experts to coincide with their availability and encouraged experts to register their details on the IPPC Consultant Roster. The Secretariat now has access to a roster of subject matter experts that can be contacted for collaboration in future technical assistance projects. The Secretariat will also continue to use the approach of delegating tasks, where appropriate, to groups of subject matter experts to gain balanced perspectives and inputs into projects.

5. *Technical resource development methods*

During the development of IPPC technical resources experts were engaged to assist in drafting and peer review activities. A challenge that often occurred was when experts had differing positions and opinions on technical aspects, resulting in back and forth discussion that took a significant amount of time. However, when reviewing workshops were organized and experts were brought together to discuss drafts, work was progressed and agreed positions reached more efficiently. In future projects, the Secretariat will organize development and review workshops, when possible, to facilitate resource development work in a more efficient way.

6. *Benefits of global project oversight*

The steering committee for this project, the IPPC Capacity Development Committee provided strategic direction and decisions relating to project implementation and technical oversight in the review of contributed resources and development of new resources. The benefit of having the CDC as the steering committee is that it provides a balance of different plant health perspectives from the seven FAO regions. Additionally, the project has benefited from the CDC representatives providing their strategic and technical input as an in-kind contribution. In future capacity development projects, the CDC will continue to be used as the oversight body to ensure global applicability of project outputs/outcomes and cost savings are achieved by using in-kind arrangements, instead of hiring experts for technical reviews.

7. *Plant protection awareness raising*

Among the resources contributed to the IPPC are photographs of plant pests compiled through the IPPC 'Pests without Borders' photo contest, which was undertaken by the Secretariat to raise awareness of plant protection.These photos demonstrate how plant pests are a major threat to the world's plant resources, which the IPPC works to protect and prevent pest spread and introduction. This awareness raising exercise resulted in the display of photographs at CPM 10 (2015), at SPS and STDF events and publication of the contest photos in National Geographic Italy, La Repubblica and in an FAO strategic objective poster. This photo contest exercise provides plant protection photographic resources for use by IPPC and contracting parties and raises awareness of plant protection. The photo contest is scheduled to be repeated for CPM 11 (2016) to gather photographs on plant pest impacts and phytosanitary activities.

Next steps

The following are general recommendations made on the basis of the project outcomes.

1. *Monitor feedback on technical resources and update as necessary*

Feedback mechanisms have been incorporated into technical resources through inclusion of links to surveys where users can inform the IPPC Secretariat of usefulness of resources and suggestions for improvement, in addition feedback when resources are used at external meetings and workshops. These mechanisms allow the IPPC Secretariat to monitor the resources use and make improvements, as necessary. Technical resources will also be updated to reflect changes in science and technique.

2. *Facilitate use of the technical resources by contracting parties and others to enhance capacity*

Identify opportunities to promote use of the IPPC developed technical resources, such as at external meetings, workshops and trainings and encourage contracting parties to adapt the resources to their national context, thereby enhancing their national plant health capacity.

Additionally, other technical assistance providers, such as the STDF, will include a list of completed project resources on their website.

3. Encourage translation of technical resources into other official FAO languages
Currently IPPC technical resources are primarily available in English, due to its use as the main IPPC and FAO working language. To allow resources to be of use to a wider range of contracting parties the IPPC Secretariat will seek opportunities for translation into the other FAO official languages, such as within other technical assistance projects and by associated providers.

4. Continue to call for technical resources in priority areas to develop capacity
The IPPC Secretariat continues an open call for technical resources to be contributed in the plant health area. In addition, recent specific calls have been made for software applications (pest identification, diagnosis, surveillance and other activities related to plant health), plant health risk communication resources and technical resources (manuals, SOPs, public outreach materials, projects etc.) on general and specific pest surveillance.

5. Continue development of technical resources in identified priority areas
The IPPC Secretariat, under the oversight of the CDC will continue to develop technical resources in priority areas identified (Annex 4). Additional technical resources will be developed based on funding arrangements external to the completed project.

6. Improvements to the Phytosanitary Resources website
Since its establishment in 2012 the Phytosanitary Resources website has served as a repository of information, primarily for contributed and IPPC developed technical resources. However, due to the expanded scope of resources now available and user demands, a review of the website was undertaken to better define content and monitor use. Improvements from the review will be undertaken by the IPPC Secretariat.

ANNEX 1: Project staff list

Table A1: IPPC Secretariat staff

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ANNEX 2: Priority listing of technical resources

Extract from the Report of the 2nd Meeting of the IPPC Expert Working Group on Phytosanitary Capacity Development

Agenda Item 4: Capacity Development Projects

1. Project STDF/PG/350

An overview of the project was provided by the Secretariat.

The Secretariat expressed appreciation to the hard work of the EWG in preparation of this and to the expressions of support provided by contracting parties and institutions. The discussion on the implementation of the project ensued with the following agreements:

1. Review the logframe and budget and resubmit to STDF.

2. To issue a call for availability of technical resources (manuals, SOPs , training materials and electronic media). The IPPC will prepare a call to be directed to NPPOs and RPPOs. A template call for technical resources will be prepared by the Secretariat for use by EWG members, to approach relevant institutions in their regions for provision of technical resources where they exist. The call will be open for a duration of 2 weeks with a possible extension of two additional weeks.

3. Compare available material to a priority listing of technical resources produced by the EWG and prioritize the manuals, SOPs and training kits to be developed under the project. The prioritization includes consideration of 5 topics proposed by the SC. See **Appendix 8**.

Appendix 8: Table from the discussion on possible topics for Manuals

Generic inspection for import/export	Export certification	Surveillance and diagnostic	Import Verification	NPPO management	Status and pest listing	Emergency response	PRA
Green houses	Packinghouses specifications	Determination of surveillance plans	Post entry quarantine	Setting up an NPPO	Preparation of lists of regulated pests .	Contingency planning	Climate matching
Storage places	Silos	Collection of samples	Treatments	Client management	Information sharing on pest status	Funding mechanisms	Environmental assessment
Containers	General export procedures	Processing of samples for analysis	Systems approaches	Customers service		Stakeholders coordination	Determination of economic impact
Grain and seeds, including turf	Treatments	Surveillance information management	Preclearance	Stakeholder fora		Declaration of regulated areas.	PRA 101
Handicrafts	Systems approaches	PFA and ALPP	Documentary verification	Phytosanitary information system management			
Lumber and timber and sawn wood products	Preclearance	PFPP and PFPS	Emergency procedures	Hazard profiling✶			
Packaging Material	PFA and ALPP	Trapping for specific pests	Handling of non-compliance cases	Cost recovery/Fees structure			
Air Passenger Baggage	PFPP and PFPS		Offsite inspection	Policy and legislation			
Air Cargo	Field inspection		Sampling for diagnostics	Human resources management			

Maritime and inland waterways cargo	Issuance of PC		Processing of biological control agents for import	Import permits			
Mail Facility	Traceability of consignments		Leakage surveys	Market access negotiations✶			
Passenger Vehicles	Maintenance of identity and integrity of consignments			Training requirements for public officers and designated officers			
Overland Cargo	Sampling for diagnostics			Participation in IPPC activities			
Heavy used machinery	Handling of transit consignments✶			Performance management			
Animals	Processing pest specimens for confirmatory diagnostics			Audits			
Pedestrian				Quality assurance			
Pre departure Air Passenger				Third parties authorization			
Rail Cargo				Service providers supervision			
Feed inspection				Branding and promotion			
Express Carrier				Prosecuting cases of			

				offenses			
Cruise Ship							

ANNEX 3: Prioritization of new technical resources

Extract from the Report of the 3rd Meeting of the IPPC Expert Working Group on Phytosanitary Capacity Development

4.1 Project STDF/PG/350

The EWGCD developed criteria for prioritizing the products to be developed under this project. (See **Appendix 9**).

The agreed criteria for prioritization of products are:

1. Whether the product addresses core functions of the IPPC.
2. Whether the product relates to NPPO management.
3. Global applicability of the resource.
4. Whether the product addresses emerging and urgent topics.
5. Whether the product can be considered a general manual.
6. Whether the product address multiple areas of interest or activities.
7. Whether other options of related technical resource are not available.

Appendix 9: Provisional table of priorities

Area	Topic	Type of resource / product (Manual, SOP or training kit)	Possible contents	Possible collaborators	Priority criteria applicable	Score
Export certification	Dielectric heating system	M	Description Operation Examples of Equipment and specifications	Treatment developer	1,3, 4, 7	4
NPPO management	Setting up an NPPO;	M;TK	fulfilment of IPPC related obligations; Policy and legislation; Cost recovery / Fees structure; Third parties authorization; Prosecuting cases of offenses;	Consultants; Collaborating NPPOs	1,2,3,5,6,7	6

	Operating the NPPO	M;SOP;TK	Human resources management; Training requirements for NPPO officers and designated officers; Good management practices (incl. documented procedures, Performance management); Service providers supervision (incl. Audits etc); Phytosanitary information system management	Consultants; Collaborating NPPOs	1,2,3,5,6,7	6
	External relations	M	Client management; Customers service; Stakeholder fora; Phytosanitary information system management; Market access negotiations; Branding and promotion	Consultants; Collaborating NPPOs	2, 4, 6	3
	International relations	M	Participation in IPPC activities; Market access negotiations;	Consultants; Collaborators	1, 3, 5	3
Generic inspection for import/export	Transportation related Pathway	SOPs	Passenger Vehicles; Cruise Ship; Pre departure Air Passenger; Pedestrian; Air Passenger Baggage; Express Carrier; Containers; Ship Ballast; Packaging Material; Animals; Maritime and inland waterways cargo; Rail Cargo; Overland Cargo	Consultants; Collaborators (incl. NPPOs)	1, 3, 4	3

	Regulated Articles	SOPs	Heavy used machinery; Organic Fertilizers; Nursery Stock; Ornamentals; Lumber and timber and sawn wood products; Feed inspection	Consultants; Collaborators (incl. NPPOs)	1, 3, 5	3
	Facilities	SOPs	Green houses; Mail Facility; Storage places	Consultants; Collaborators (incl. NPPOs)	1,3, 5	3
PRA	Operational	M	Climate matching; Environmental assessment; Determination of economic impact	Consultants; Collaborators (incl. NPPOs)	1,3, 5	3
	Training	TK	PRA 101	Consultants; Collaborators	1,3, 5	3
Export certification	General export procedures	M;SOP;TK	Treatments; Traceability of consignments; Maintenance of identity and integrity of consignments; Issuance of PC	Consultants; Collaborators (incl. NPPOs)	1,3, 5	3
	Diagnostics	M;SOP;TK	Sampling for diagnostics; Processing pest specimens for confirmatory diagnostics	Consultants; Collaborators	1,3, 5	3
	Measures	M;SOP	PFA and ALPP; PFPP and PFPS; Systems approaches	Consultants; Collaborators	1,3, 5,6,7	5
	Facility	SOP	Silos; Packinghouses specifications; Field inspection	Consultants; Collaborators (incl. NPPOs)	1,3, 5	3
Import verification	General import procedures	M;SOP;TK	Post entry quarantine; Handling of non-compliance cases; Leakage surveys; Documentary verification; Offsite inspection; Emergency	Consultants; Collaborators	1,3, 5	3

			procedures			
	Diagnostics	SOP	Sampling for diagnostics	Consultants; Collaborators (incl. NPPOs)	1,3, 5	3
	Measures	M;SOP	Systems approaches; Treatments; Processing of biological control agents for import	Consultants; Collaborators (incl. NPPOs)	1,3, 5, 7	4
Emergency response	General Procedures	M;SOP;TK	Contingency planning; Funding mechanisms; Stakeholders coordination; Declaration of regulated areas.	Consultants; Collaborators (incl. NPPOs)	1,3, 5	3
Status and pest listing : On hold till next meeting. A proposal is going to be performed to the IRSS.	General procedures	M; SOP	Preparation of lists of regulated pests; Information sharing on pest status	Consultants; Collaborators (incl. NPPOs)	1,3,5,6	4

ANNEX 4: Technical resources not developed under STDF 350

Area	Topic	Type of resource / product (Manual, SOP or training kit)	Possible contents	Possible collaborators	Priority criteria applicable	Score
NPPO management	International relations	M	Participation in IPPC activities; Market access negotiations;	Consultants; Collaborators	1, 3, 5	3
Generic inspection for import/export	Regulated Articles	SOPs	Heavy used machinery; Organic Fertilizers; Nursery Stock; Ornamentals; Lumber and timber and sawn wood products; Feed inspection	Consultants; Collaborators (incl. NPPOs)	1, 3, 5	3
Facilities	SOPs	Green houses; Mail Facility; Storage places	Consultants; Collaborators (incl. NPPOs)	1,3, 5	3	
Export certification	Measures	M;SOP	PFA and ALPP; PFPP and PFPS; Systems approaches	Consultants; Collaborators	1,3, 5,6,7	5
	Facility	SOP	Silos; Packinghouses specifications; Field inspection	Consultants; Collaborators (incl. NPPOs)	1,3, 5	3
Import verification	Measures	M;SOP	Systems approaches; Treatments; Processing of biological control agents for import	Consultants; Collaborators (incl. NPPOs)	1,3, 5, 7	4
Emergency response	General Procedures	M;SOP;TK	Contingency planning; Funding mechanisms; Stakeholders coordination; Declaration of regulated areas.	Consultants; Collaborators (incl. NPPOs)	1,3, 5	3
Status and pest listing	General procedures	M; SOP	Preparation of lists of regulated pests; Information sharing on pest status	Consultants; Collaborators (incl. NPPOs)	1,3,5,6	4

ANNEX 5: Project documents

1. Steering committee documents

Report on the 1st Meeting of the IPPC Capacity Development Committee (CDC 1)
https://www.ippc.int/static/media/files/publications/en/2013/06/04/1358775757_report_cdc_2012-12_final_201304232120en.pdf

CDC procedures and criteria for the production and oversight of technical resources (CDC 1)
https://www.ippc.int/static/media/files/publications/en/2013/06/04/1358775757_report_cdc_2012-12_final_201304232120en.pdf

Report of the 2nd Meeting of the IPPC Capacity Development Committee (CDC 2)
https://www.ippc.int/en/publications/2228/

Report of the 3rd Meeting of the IPPC Capacity Development Committee (CDC 3)
https://www.ippc.int/static/media/files/publications/en/2014/03/25/final_report_cdc_3rdmeeting_forposting.pdf

Report of the 4th Meeting of the IPPC Capacity Development Committee (CDC 4)
https://www.ippc.int/static/media/files/publications/en/2014/06/23/finalreport_4th_cdc_forposting.pdf

Report of the 5th Meeting of the IPPC Capacity Development Committee (CDC 5)
https://www.ippc.int/static/media/files/publications/en/2014/12/19/5th_cdc_meeting_report.pdf

Report of the 6th Meeting of the IPPC Capacity Development Committee (CDC 6)
https://www.ippc.int/static/media/files/publication/en/2015/06/6th_CDC_meeting_report_final_kaSEyT8.pdf

Revised criteria for posting resources on the Phytosanitary resources page (CDC 6)
http://www.phytosanitary.info/sites/phytosanitary.info/files/Updated_criteria.pdf

2. Project progress reports

STDF350 Project grant application (January 2011)

STDF350 Inception report (February 2012)

STDF350 1st Progress report (August 2012)

STDF350 2nd Progress report (April 2013)

STDF350 3rd Progress report (September 2013)

STDF350 4th Progress report (March 2014)

IPPC Request for no-cost extension (STDF Project 350) (September 2014)

STDF350 5th & 6th Progress report (February 2015)

3. STDF350 External use of resources

IPPC Pests Without Borders photo contest published by National Geographic Italia (April 2014)
http://www.nationalgeographic.it/fotografia/2015/04/02/foto/parassiti_senza_frontiere_i_vincitori_del_concorso-2551944/1/?ref=HRESS-38

IPPC Pests Without Borders photo contest published by la Repubblica (April 2015)
http://www.repubblica.it/

FAO/IPPC photo missions to Morocco, Chile, Senegal and Costa Rica are available at the FAO mediabase (2015) www.mediabase.fao.org

ANNEX 6: Associated project workshops

Table A3.1: STDF350 workshops

Country	Date	Brief summary of achievements
Puerto Rico	May 2015	Expert workshop to discuss draft Import Verification, Export Certification, Plant Pest Diagnostics and Plant Pest Surveillance manuals. All documents were reviewed and progressed to editing stage.